

# **EBU PROGRAMS CATALOG**

## **2023 – 2024**



**European Business Institute of Luxembourg**  
Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent

## **TABLE OF CONTENTS**

<b>CIP/A-BUSINESS COURSES</b>	<b>3</b>
<b>FINANCE COURSES</b>	<b>62</b>
<b>DATA SCIENCE AND ARTIFICIAL INTELLIGENCE COURSES</b>	<b>165</b>
<b>EDUCATION COURSES</b>	<b>204</b>
<b>CIP/B-BUSINESS COURSES</b>	<b>251</b>
<b>CERTIFICATE IMPACT PROGRAM COURSES</b>	<b>292</b>

\

# Course Catalog

## 2023 – 2024

### CIP/AB Courses

*Last revised on March, 2023*



**European Business Institute of  
Luxembourg**

Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent.

## **CONTENTS**

<b>INTRODUCTION</b>	<b>3</b>
CODE: CIP100 - MARKETING MANAGEMENT	6
CODE: CIP101 - HUMAN RESOURCE MANAGEMENT	9
CODE: CIP 102 - FINANCIAL ACCOUNTING AND REPORTING	12
CODE: CIP 103 - CORPORATE POLICY AND ETHICS	15
CODE: CIP 104 - STATISTICS AND DATA ANALYSIS	18
CODE: CIP 105 - BUSINESS LAW SEMINAR	20
CODE: CIP 200 - INTERNATIONAL MARKETING	22
CODE: CIP 201 - ENTREPRENEURSHIP AND INNOVATION MANAGEMENT	24
CODE: CIP 202 - ADVANCED MANAGERIAL ACCOUNTING	27
CODE: CIP 203 - THE GLOBAL ECONOMY	29
CODE: CIP 204 - GLOBAL STRATEGIC MANAGEMENT	32
CODE: CIP 205 - COMMUNICATION SKILLS SEMINAR	35
CODE: CIP 300 - OPERATIONS MANAGEMENT	37
CODE: CIP 301 - STRATEGIC LEADERSHIP IN ORGANIZATIONS	41
CODE: CIP 302 - CORPORATE FINANCE	43
CODE: CIP 303 - INFORMATION TECHNOLOGY STRATEGY	45
CODE: CIP304 - NEGOTIATION SEMINAR	47

## **INTRODUCTION**

This catalog provides course syllabi for all courses. Unless mentioned otherwise, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload, consisting of 10 contact hours and 20 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

All courses are Certificate level and are taught according to a student centered approach. Course content listed should be regarded as indicative course content. Learning outcomes listed are reference points and should be regarded as intended learning outcomes for what students are expected to be able to do at the end of the course. Assessments done in the course should address these learning outcomes. The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

The overall learning of the courses at the Certificate program corresponds to the level descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.



Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

## CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

## COURSE EVALUATION

Course evaluation: Study Load per 4 ECTS course	Total 113 hrs.
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.



## CORE COURSE

# CODE: CIP100 - MARKETING MANAGEMENT

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course intends to provide an experienced-based approach to marketing theory and its practical application. The course is designed to enable the students to learn the basics of marketing. Topics of the syllabus shall be addressed and discussed from an application oriented perspective

## LEARNING CONTENT AND OBJECTIVES

To develop a general understanding of marketing, why it is essential for all kinds of companies, and why strategic and tactical marketing are becoming more and more important these days.

### Unit I

Core Concepts of Marketing:

Concept, Meaning, definition, nature, scope and importance of marketing, Goods – Services Continuum, Product, Market, Approaches to Marketing – Product – Production - Sales – Marketing – Societal – Relational. Concept of Marketing Myopia, Holistic Marketing Orientation, Customer Value, Adapting marketing to new liberalised economy - Digitalisation, Customisation, Changing marketing practices.

### Unit II

Market Analysis and Planning:

Marketing information system, Strategic marketing planning and organization, Marketing environment, Controllable and uncontrollable factors affecting marketing decisions, Analyzing latest trends in Political, Economic, Socio-cultural and Technical Environment, Concept of market potential & market share. Nature and contents of Marketing plan.

### Unit III

Characteristics of consumer and organizational markets, Buyer Behaviour, 5 step Buyer decision process. Meaning and concept of market segmentation, Bases for market segmentation, Types of market segmentation, Effective segmentation criteria, Evaluating & selecting Target Markets, Concept of Target Market, Positioning and differentiation strategies, Concept of positioning – Value Proposition & USP.

#### Unit IV

Product Decision- Concept of a product; Classification of products; Major product decisions; Product line and product mix; Branding; Packaging and labelling; Product life cycle – strategic implications; New product development and consumer adoption process.

#### Unit V

Price Decision- Concept, and Meaning of Price and Pricing, Significance of Pricing Decision, Factors affecting price determination;  
Pricing Methods and Techniques, Pricing policies and strategies; Discounts and rebates.

#### Unit VI

Place Decision- Nature, functions, and types of distribution channels; Distribution channel intermediaries; Channel management decisions, Marketing channel system - Functions and flows; Channel design, Channel management - Selection, Training, Motivation and evaluation of channel members;

#### Unit VII

Promotion Decision- Communication Process; Promotion mix – advertising, personal selling, sales promotion, publicity and public relations, other promotion mix elements. Media selection; Advertising effectiveness; Sales promotion – tools and techniques.

### LEARNING OUTCOMES

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module
L1	Understand the scope of marketing and its role and impact on acquiring and retaining customers;	A, B, D
L2	Analyze macro- and micro- marketing environment and apply marketing research;	A, B, C, D
L3	Analyze buyer behavior concept at consumer and organizational markets;	A, B, C, D
L4	Apply the principles of market segmentation, targeting, and positioning;	A, B, C, D
L5	Demonstrate knowledge and apply the elements of a marketing mix elements, including product strategy, pricing, distribution, and communication, in a digital environment;	A, B, C, D

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

### Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY

- Marketing Management, second edition by Greg W. Marshall and Mark W. Johnston, ISBN-13: 978-0-07-802886-1, McGraw Hill Education.

- Kotler, Philip, and Kevin Keller. Marketing Management. 13th ed. Prentice Hall, 2008
- Best, Roger J. Market-Based Management – Strategies for Growing Customer Value and Profitability. 5th ed. Prentice Hall, 2009.

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

## CORE COURSE

# CODE: CIP101 - HUMAN RESOURCE MANAGEMENT

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

### LEARNING OBJECTIVES AND OUTCOMES

The objective of this course is to endow the student with a broad perspective on themes and issues of Human Resource Management along with their relevance and application. It will help the students to build up and refine decision making skills so that they can help organizations effectively conduct personnel management and employee relations.

#### UNIT I

Human Resources Management (HRM) : Meaning, Nature and Scope, Difference between HRM and Personnel Management, HRM functions and objectives, Evolution of HRM environment – external and internal.

#### UNIT II

Evolution and principles of HR, HR Vs. Personnel functions, Role of HR managers. Strategic Human Resource Management and Strategic management processes – Environmental Scanning, Strategy Formulation, implementation and evaluation.

Human Resources planning: Definition, purposes, processes and limiting factors; Human Resources Information system (HRIS); costing of human resources; assessing HEVA (human economic value-added)

#### UNIT III

Job Analysis – Job Description, Job Specification. The systematic approach to recruitment: recruitment policy, recruitment procedures, recruitment methods and evaluation. The systematic approach to selection: the selection procedure, the design of application form, selection methods, the offer of employment, and evaluation of process.

Training and Development: Purpose, Methods and issues of training and management development programmes.

#### UNIT IV

Performance Appraisal: Definition, Purpose of appraisal, Procedures and Techniques including



## UNIT V

Discipline and Grievance Procedures: Definition, Disciplinary Procedure, Grievance Handling Procedure.  
Industrial Relations: Nature, importance and approaches of Industrial Relations.  
Promotion, Transfer and Separation: Promotion – purpose, principles and types; Transfer – reason, principles and types; Separation – lay-off, resignation, dismissal, retrenchment, Voluntary Retirement Scheme.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Demonstrate understanding of: <ul style="list-style-type: none"> <li>• Current global trends and issues related to Human Resource Management</li> <li>• best HR practice in high-performance organizations</li> <li>• potential changes in HR practices over the coming decade</li> </ul>	Yes	✓ ✓ ✓			✓ ✓ ✓
L2	Apply theory, concepts and models to HR practice in the following areas: <ul style="list-style-type: none"> <li>• Strategic planning</li> <li>• Recruitment</li> <li>• Performance Management</li> <li>• Employee Engagement and Retention</li> <li>• Action Research</li> </ul>	Yes	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
L3	Analyse, evaluate and provide creative solutions to complex HR problems, including: <ul style="list-style-type: none"> <li>• Organizational structure and culture</li> <li>• Employee / Industrial Relations</li> <li>• Dealing with inter-personal issues</li> <li>• Strategic leadership in the field of HR</li> </ul>	Yes		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	
L4	Communicate effectively with peers and line management in terms of: <ul style="list-style-type: none"> <li>• Communication technologies</li> <li>• Use of presentation tools and techniques</li> <li>• Writing of effective HR documents</li> <li>• Financial analysis of human capital benefits and costs</li> </ul>	Yes		✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
L5	<ul style="list-style-type: none"> <li>• Lead and participate in virtual team meetings and assignments</li> <li>• Develop collective problem-solving skills with colleagues</li> <li>• Make informed judgements related to professional and ethical HR challenges</li> <li>• Take responsibility for initiatives and projects</li> </ul>				✓ ✓ ✓ ✓	✓ ✓ ✓ ✓

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Armstrong- A Handbook of Human Resource Management, 13th Edition Luis R. Gómez-Mejía, David B.Balkin & Robert L. Cardy - Managing Human Resources 6/E,
- Managing Human Resources, 10th edition Wayne F. Cascio
- Al Ariss, A. (Ed.) (2014) Global Talent Management, Challenges, Strategies, and Opportunities, Springer International Publishing, Switzerland.
- The Global Challenge: International Human Resource Management, 2nd edition Paul Evans, Vladimir Pucik, Ingmar Bjorkman, McGraw Hill
- Newman, A., Ober, S. 2016 Business Communication In Person, in Print, Online 10th Edition, Cengage Learning



## CORE COURSE

# CODE: CIP 102 - FINANCIAL ACCOUNTING AND REPORTING

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course is an introduction to Financial Accounting & Reporting designed for business students with the assumption that the knowledge of a unique accounting system (the US, the UK or the French one) is not sufficient. The main purpose of this course is to deal with the measurement of value created (and value creation from the point of view of outside decision-makers) and the use of financial accounting information.

## LEARNING OBJECTIVES AND OUTCOMES

When you successfully complete this course, you should be able to:

- **Understand** the process of accumulating, identifying, measuring and recording economic information
- **Appreciate** the use of accounting information for external decision making
- **Understand** the underlying similarities and differences of generally accepted accounting principles in the world
- **Understand** the importance of financial statement analysis for fund managers, financial analysts, strategy advisors and the *stakeholders* of the company
- **Master** the different “tools” used to perform a financial statement analysis.

### General introduction

- Definition of financial accounting
- Users of financial accounting
- Introduction to the accounting process

### Introduction to the financial statements

- Balance sheet
- Accounting equation (balance sheet equation)
- Income statement
- Notes to financial statements
- Principle of double entry
- Examples of transactions

### Introduction to the financial statements

- Notion of depreciation
- Consumption and inventory
- Profit appropriation

- Introduction to financial statement analysis

## **Accounting principles and end-of-period adjustments**

### **Accounting principles**

**End-of-period entries: adjusting entries, change in value of fixed assets, change in value of current assets**

### **International accounting**

- International Accounting - Harmonization
- Comparative accounting
- Presentation of IASB – List of International Accounting Standards

### **Financial statements presentation**

- Balance sheet
- Income statement
- Notes to financial statements
- Statement of cash flows

### **Tangible assets**

- Basic principles: definition, difference between tangible assets and inventories, difference between tangible assets and expenses
- Acquisition: definition of acquisition cost
- Depreciation: main concepts; straight line and declining balance methods; how to record depreciation
- Self-constructed assets
- Intangible assets
- Definition
- Recognition
- Treatment of changes in value
- Accounting for R&D

### **Inventories**

- Classification of inventory
- Recording of inventory
- Financial analysis of inventory

### **Introduction to financial instruments Business combinations**

- Consolidation: full consolidation, equity method and proportional consolidation
- Accounting for goodwill

### **Statement of cash flows**

- Objectives and usefulness of a statement of cash flows
- Preparation of the statement of cash flows (IAS 7/FAS 95 model)
- Analysis of the statement of cash flows

### **Income statement analysis**

- Common-size income statements
- Common-size income statements by nature: value added statement and statement of intermediate balances

### **Balance sheet analysis**

- Common-size balance sheets
- Common-size balance sheet: the link between working capital, working capital needs and net cash

### **Ratio analysis**

### **Corporate social responsibility**

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	<b>Understand</b> the process of accumulating, identifying, measuring and recording economic information	NO	X	X		
L2	<b>Appreciate</b> the use of accounting information for external decision making	YES	X	X	X	X
L3	<b>Understand</b> the underlying similarities and differences of generally accepted accounting principles in the world	NO	X	X	X	
L4	<b>Understand</b> the importance of financial statement analysis for fund managers, financial analysts, strategy advisors and the <i>stakeholders</i> of the company	NO	X	X		
L5	<b>Master</b> the “utopia financial statement analysis. I don’t know”	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Dyckman, Thomas R., et al. Financial & Managerial Accounting for Decision Makers. 3rd Ed. Cambridge Pub.
- “Value-Based Management with Corporate Social Responsibility” by Martin, Petty, and Wallace, Oxford Institute Press, 2nd Edition, 2009 (ISBN-13: 978-0-19-534038-9 is available via [www.abebooks.com](http://www.abebooks.com))

## CORE COURSE

# CODE: CIP 103 - CORPORATE POLICY AND ETHICS

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course will prepare students to understand and apply ethical decision-making models within an organizational management model. These models will introduce students to ethical skills, vocabulary, and other tools necessary to behave in an ethical manner, not only within organizations but in society at large.

This course also aims to provide students with solid skills to know and deal with the fundamentals of ethics. They are enabled to analyze business, social and environmental issues that are relevant to the development of Corporate Social Responsibility and sustainable business practices. The course focuses on the CSR practices of Multinational Corporations (MNCs), the challenges and opportunities of acting responsibly in the arena often called “the global village”. It also assesses the role of small and medium-sized enterprises (SMEs) in acting responsibly in a highly competitive environment. It discusses government strategies to attract Foreign Direct Investment (FDI) and the dilemmas these present for responsible business practice and the complex interactions between stakeholders, firms, and government.

The course provides a comprehensive introduction to ethical considerations in business. Students are enabled to develop a deeper understanding of how to act responsibly towards all business stakeholders while, at the same time, not neglecting the firm’s profitability. The course will discuss models of how CSR can create a sustainable ROI for companies. Students are encouraged to gain awareness of the interconnectedness of organizations and nations in a globalized world and how their actions as managers will affect different stakeholders, nations and the world as a whole.

## LEARNING OBJECTIVES AND OUTCOMES

When the course is complete students should be able to:

- Understand the scope and content of ethical theory (including its limitations) and its relevance for diverse institutional and operational business contexts
- Apply the theoretical precepts of ethical theory in order to evaluate real-life situations, clarify ethical alternatives, articulate associated moral values and explain techniques of moral reasoning
- Appreciate the significance of corporate governance in shaping the values and practices of an organisation and articulate complex issues in corporate governance under local and global settings
- Assess of the content and objectives of corporate social responsibility policies while discussing current ethical questions, economic, social and environmental policy frameworks in which CSR takes place

- Understand the relevance of ethical reasoning to one's own professional career and to be aware of the constraints that organisational life can sometimes place on moral self-determination.
- Demonstrate a greater awareness of cross-cultural variations in assessing moral issues through case based discussions with other members of learning groups.
- Identify critical issues of CG and CSR, including corporate ownership structures, transparency, board practices, CSR strategy formulation and implementation, and their impact on different stakeholders
- Know how to integrate management control issues with corporate governance as a firm-specific objective to achieve superior company performance and greater accountability

The course provides a comprehensive introduction to ethical considerations in business. Students are enabled to develop a deeper understanding of how to act responsibly towards all business stakeholders while, at the same time, not neglecting the firm's profitability. The course will discuss models of how CSR can create a sustainable ROI for companies. Students are encouraged to gain awareness of the interconnectedness of organizations and nations in a globalized world and how their actions as managers will affect different stakeholders, nations and the world as a whole.

### **Introduction to Business Ethics and Corporate Social Responsibility**

- Introduction to Ethics and CSR
- The Pro's and Con's
- Corporate Citizenship
- Social responsiveness and performance

### **Theory of Ethics**

- Ethical egoism and subjectivism
- Cultural relativism
- Theory and practice

### **Environmental Ethics**

- Approaches to environmental issues
- Opposition to green environmentalism
- Sustainable development
- ROI of sustainable environmental

### **Ethical Decision-Making**

- The behavioural complex affecting ethical decision-making
- Models of ethical decision-making
- Factors affecting ethical decision-making

### **CSR and Ethics in a Global Context**

- Global business activity and practice
- Operating in conflict zones
- Bottom-of-the Pyramid – doing business in poverty markets
- Corruption and its impact on the national and global economy

### **Governing organisations**

- Defining corporate governance
- Key features of governance
- National and international dimensions of governance
- Shareholding, ownership and control
- Employee representation
- Boards of directors

### **Auditing and Reporting Social Performance**

- Voluntary initiatives
- Voluntary codes
- Social accounting
- Drivers for social and environmental reporting
- Principles on report content

### **Managing Ethics Internally**

- Managing corporate ethics
- Corporate values & culture
- Compliance groups
- Ethical change management

### **Environmental Responsibility**

- Framing the link between business and the environment
- Principles: responsibility and precaution
- Context: social, political, and legal aspects
- Solutions to environmental problems

- Environmental measurement and management

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the scope and content of ethical theory (including its limitations) and its relevance for diverse institutional and operational business contexts	Yes 1, 3, 4, 5	x	x		x
L2	Apply the theoretical precepts of ethical theory in order to evaluate real-life situations, clarify ethical alternatives, articulate associated moral values and explain techniques of moral reasoning.	Yes 1, 2, 3, 4, 5	x	x	x	x
L3	Appreciate the significance of corporate governance in shaping the values and practices of an organisation and articulate complex issues in corporate governance under local and global settings.	Yes 1, 2, 3, 4, 5	x	x	x	x
L4	Assess of the content and objectives of corporate social responsibility policies while discussing current ethical questions, economic, social and environmental policy frameworks in which CSR takes place.	Yes 1, 3, 4, 5	x	x		x
L5	Understand the relevance of ethical reasoning to one's own professional career and to be aware of the constraints that organisational life can sometimes place on moral self-determination.	Yes 1, 2, 3, 4, 5	x	x		x
L6	Demonstrate a greater awareness of cross-cultural variations in assessing moral issues through case-based discussions with other members of learning groups.	Yes 1, 2, 3, 4, 5	x	x	x	x
L7	Identify critical issues of CG and CSR, including corporate ownership structures, transparency, board practices, CSR strategy formulation and implementation, and their impact on different stakeholders.	Yes 1, 2, 3, 4, 5	x	x	x	x
L8	Know how to integrate management control issues with corporate governance as a firm-specific objective to achieve superior company performance and greater accountability	Yes 1, 2, 3, 4, 5	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D -Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Boylan, M. (2000). *Business Ethics*. Pearson.
- Post, J.E., Lawrence, A.T. Weber, J. (2001). *Business and Society, Corporate Strategy, Public Policy, Ethics*, McGraw Hill.

- Recommended articles are available on Moodle, listed under each session.



## CORE COURSE

# CODE: CIP 104 - STATISTICS AND DATA ANALYSIS

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course aims to equip CIP students with the relevant mathematical tools to be used in business situations. The objective is that students are able to formulate, analyse and implement a quantitative model to support a business decision. The lectures will describe various concepts in the areas of probability, statistics and calculus to be used in a variety of business cases in the following areas: finance, marketing, operations, human resources and project management. The course will give students the opportunity to solve real cases, which will require the use of IT programs and applications.

## TOPIC OUTLINE

- Fundamentals of Statistics. Data Analysis. Measures of central location and dispersion
- Introduction to probability and probability distributions.
- Introduction to regression analysis
- Multiple regression analysis and analysis of results
- Advanced regression analysis: Relaxing some classical assumptions
- Decision Analysis
- Financial Mathematics
- Linear Programming. The Basics
- Linear Programming. Application to management problems

## LEARNING OUTCOMES.

- Obtain an appreciation for the breadth of statistical applications in business.
- Learn how to construct and interpret summarization procedures for quantitative and qualitative data.
- Learn how to use probability information in the decision making process. 4. Understand the importance of sampling and how results from samples can be used to make inferences about population parameters.
- Learn how to construct and interpret interval estimate of a population mean.
- Learn how to formulate and test hypotheses about a population mean.
- Understand how regression analysis can be used to develop an equation that estimates how two variables are related.
- Learn how the analysis of variance procedure can be used to determine if means of more than

two populations are equal.

- Hypothesis testing: Single population, two populations, z-test, t-test, one-tailed and two-tailed tests, chi-square tests, F-test for the variances, analysis of variance (ANOVA), and regression analysis.
- Understand the role that statistical data analysis plays in managerial decision making process.
- Learn how to use statistical software for computations,

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Obtain an appreciation for the breadth of statistical applications in business.	YES	X	X		X
L2	Learn how to construct and interpret summarization procedures for quantitative and qualitative data.	YES	X		X	X
L3	Learn how to use probability information in the decision making process, Hypothesis testing: Single population, two populations, z-test, t-test, one-tailed and two-tailed tests, chi-square tests, F-test for the variances, analysis of variance (ANOVA), and regression analysis.	YES	X	X	X	X
L4	Understand the role that statistical data analysis plays in managerial decision making process,	NO	X	X		X
L5	Understand how regression analysis can be used to develop an equation that estimates how two variables are related, Learn how to use statistical software for computations.	YES	X	X	X	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

Bibliography: TBD

- QUANTITATIVE METHODS FOR BUSINESS / Anderson, David Ray ; Sweeney, Dennis J ; Williams, Thomas Arthur. -- Cincinnati, Ohio: South-Western College Pub. STATISTICS / Hays, William L. -- Fort Worth: Harcourt Brace College
- STATISTICAL THINKING (Improving Business Performance) / Roger Hoerl and Donald D. Snee, Duxbury (Thomson Learning)
- APPLIED SIMULATION MODELING / Seils, Ceric and Tadikamalla, Duxbury Applied Series (Thomson Learning)
- MAKING HARD DECISIONS / Robert T. Clemen and Terence Reilly, Duxbury (Thomson)

Learning).

- DATA ANALYSIS & DECISION MAKING WITH MICROSOFT EXCEL, Al-bright, Winston and Zappe, (Thomson-Duxbury).

## CORE COURSE

# CODE: CIP 105 - BUSINESS LAW SEMINAR

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 2

Course duration: 5 weeks

Total contact hours: 17.5 (7.5 hrs Lectures + 10hrs Discussion Forums)

Total exam hours: 2

Total study hours: 28 (20hrs Self-directed + 2hrs Research + 6hrs Specific Assignments) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The seminar is designed to introduce students to some of the legal topics they are likely to encounter in their future management careers and give them an opportunity to understand the meaning of some key concepts as well as developing some basic legal skills.

The objective is not to learn in detail all the applicable rules in any given area of the law, but rather to explore some of those most relevant to global companies, acquiring a solid foundation in them.

## COURSE AND LEARNING OBJECTIVES

- Demonstrate the relationship between law and business activity by developing in students an awareness of legal principles involved in business transactions.
- Provide students with a basic understanding of substantive law in the area of contracts.
- Develop students' skills in analytical thinking and logical reasoning as a technique for making law based decisions.
- Provide students with an understanding of conflict resolution from an international perspective.
- Provide students with knowledge of the key legal issues in developing business from an international perspective.
- Develop an understanding of the legal and business considerations when evaluating the different business structures available for expansion.
- Gain knowledge of the specific legislation and business practices to be aware of when carrying out business within the EU and China.

On completion of the course the students will be able to:

- Understand the relationship between law and business.
- Recognise the key elements of a valid contract and have a basic understanding of how to draft one.
- Determine the points to be covered in an international sale of good contract from both a practical and legal perspective.
- Evaluate the key points when deciding on which business structure to choose in a process of

internationalisation.

- Draft a letter of intent / memorandum of understanding.
- Understand the need to ensure compliance with EU legislation and the steps to do so.
- Recognise the legal requirements to be met to enter into the Chinese market

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module ?	A	B	C	D
L 1	Demonstrate a critical understanding of the principle theories, concepts and principles.	Yes	X	X		
L 2	In using a significant range of the principal specialised skills, techniques, practices and/or materials associated with the subject/discipline/sector.	Yes			X	
L 3	Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector	Yes	X	X	X	X
L 4	Communicate, using appropriate methods, to a wide range of audiences with different levels of expertise / knowledge.				X	
L 5	Work in a peer relationship with specialist practitioners					

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Liuzzo, A and Calhoun Hughes, R (2019). *Essentials of Business Law*. McGraw Hill.
- Kubasek, N. & al. (2020). *Dynamic Business Law*. 5th Edition. McGraw Hill.
- Recommended articles are available on Moodle, listed under each session.

## CORE COURSE

# CODE: CIP 200 - INTERNATIONAL MARKETING

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course intends to provide an experienced-based approach to marketing theory and its practical application. The course is designed to enable the students to learn the basics of marketing. Topics of the syllabus shall be addressed and discussed from an application-oriented perspective.

## LEARNING OUTCOMES

At the end of the course the student will be able to:

- Analyze the role of marketing in world markets in the complex global competitive environment landscape.
- Contrast and examine the complex business environment from political, cultural, legal, technological, and economical angles and industry perspectives.
- Critically evaluate and formulate marketing strategies in the international context.
- Assess the interdependence between marketing and sales strategies.
- Examine and evaluate the basic principles, objectives, and issues when developing international channels of distribution

### Unit I

Core Concepts of Marketing:

Concept, Meaning, definition, nature, scope and importance of marketing, Goods – Services Continuum, Product, Market, Approaches to Marketing – Product – Production - Sales – Marketing – Societal – Relational. Concept of Marketing Myopia, Holistic Marketing Orientation, Customer Value, Adapting marketing to new liberalised economy - Digitalisation, Customisation, Changing marketing practices

### Unit II

Market Analysis and Selection:

Nature and Contents of Marketing Plan, Marketing environment, Controllable and Uncontrollable factors effecting marketing decisions, Analyzing latest trends in Political, Economic, Socio-cultural and Technical Environment, Concept of Market Potential & Market Share, Concept, Characteristics of consumer and organizational markets,

Buyer Behaviour, 5 step Buyer decision process

Meaning and concept of market segmentation, Bases for market segmentation, Types of market segmentation, Effective segmentation criteria, Evaluating & Selecting, Target Markets, Concept of Target Market, Positioning and differentiation strategies, Concept of positioning – Value Proposition & USP, Marketing Information System, Strategic marketing planning and organization.

### Unit III

Product Decision- Concept of a product; Classification of products; Major product decisions; Product line and product mix; Branding; Packaging and labelling; Product life cycle – strategic implications; New product development and consumer adoption process.

### Unit IV

Price Decision- Concept, and Meaning of Price and Pricing, Significance of Pricing Decision, Factors affecting price determination; Pricing Methods and Techniques, Pricing policies and strategies; Discounts and rebates.

### Unit V

Place Decision- Nature, functions, and types of distribution channels; Distribution channel intermediaries; Channel management decisions, Marketing channel system - Functions and flows; Channel design, Channel management - Selection, Training, Motivation and evaluation of channel members; Promotion Decision- Communication Process; Promotion mix – advertising, personal selling, sales promotion, publicity and public relations; Media selection; Advertising effectiveness; Sales promotion – tools and techniques.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Analyze the role of marketing in world markets in the complex global competitive environment landscape.	Yes	x	x	x	X
L2	Contrast and examine the complex business environment from political, cultural, legal, technological, and economical angles and industry perspectives.	Yes	x	x	x	
L3	Critically evaluate and formulate marketing strategies in the international context.	Yes	x	x		X
L4	Assess the interdependence between marketing and sales strategies.	Yes	X	x	x	x
L5	Examine and evaluate the basic principles, objectives, and issues when developing international channels of distribution .	Yes	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skill

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)



## **BIBLIOGRAPHY**

- Cateora, P., Gilly, M. & Graham, J. (2011). International Marketing, 15th edition.
- Keegan and Green, Global Marketing 8th Edition eBook, McGraw-Hill.

## CORE COURSE

# CODE: CIP 201 - ENTREPRENEURSHIP AND INNOVATION MANAGEMENT

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Technological innovation is increasingly the source of sustainable competitive advantage for firms around the world. However, building an organization to successfully and repeatedly bring technological innovations to market is a daunting managerial challenge. In this course we examine the practices and processes that managers use to manage innovation effectively including:

The processes used to create and exploit innovations along the technology, market and strategy dimensions.

Moving innovations from idea to market.

The structures and incentives organizations must put into place to effectively allow talented individuals (from different functions) to execute innovation processes.

The strategies that a firm must consider to most effectively exploit the value of their innovation, including choosing which ideas to pursue and developing innovation platforms that incorporate multiple product options, portfolios and standards.

The processes, structures and strategies for exploring, executing and exploiting innovations that established firms can use to renew their innovation foundations in the face of potentially disruptive innovations.

## LEARNING OUTCOMES

By completion of the course, you will have:

- Introduction to Technological Innovation
  - Sources of innovation,
  - Types & patterns of innovation
  - Radical versus incremental innovation
  - S-curves of product development and consumer uptake,
  - Learning curve,
  - Entry timing,
  - Methods of assessing & ranking innovation projects
- Management strategies & Company Structure for innovation such.
  - R&D teams, organizational structures and incentive to innovate,
  - Portfolio management,

- Idea generation processes
- The challenges of innovation in large and small firms;
- Choosing, protecting & exploiting innovations;
  - Innovation Funnel & Stage Gate Process,
  - Patents
  - Complimentary Platforms
  - Economics
  - Product Launch
- Innovation Case Studies and Analysis
  - Studying examples of successful innovation.
  - Culture
  - Success factors
  - Identification & evaluation of poor innovative performance
  - Compare and contrast innovation difficulties and advantages in small & large firms

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Describe sources, types & patterns of innovation	Yes	X	x		
L2	Understands the different strategies and structures companies use to promote innovation. Can weigh the pros & cons of each structure and understands why different companies may choose different structures.	Yes	x	x	x	
L3	Understands factors that contribute towards successful innovations. Able to work within a team to analyses and rank innovation options, understanding how outcome uncertainty may affect group decision making	Yes	X	X	X	x
L4	Analyze case studies of innovation in firms and be able to critically discuss the pros and cons of the strategies used.	Yes	X	X		x
L5	Recognize and understand the key errors and traps in pursuing new innovations.	Yes	x	x		

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

- Kathleen R. Allen, Launching New Ventures: An Entrepreneurial Approach, 6 th ed. (SouthWestern/Cengage, 2012)
- Eric Ries, The Lean Startup (Crown Business, 2011)

## CORE COURSE

# CODE: CIP 202 - ADVANCED MANAGERIAL ACCOUNTING

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	CIP 102 FINANCIAL ACCOUNTING AND REPORTING CIP 104 STATISTICS AND DATA ANALYSIS
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course is an intensive introduction to the preparation and interpretation of financial information for investors (external users) and managers (internal users) and to the use of financial instruments to support system and project creation. The course adopts a decision-maker perspective on accounting and finance with the goal of helping students develop a framework for understanding financial, managerial, and tax reports. Also, we will see how cost-volume-profit relationships and incremental analysis provide managers the information to support their decision-making. Issues such as accounting for responsibility centers and transfer pricing will also be introduced.

## LEARNING OUTCOMES:

After studying all materials and resources presented in the course, the student will be able to:

- Identify the role and scope of financial and managerial accounting and the use of accounting information in the decision making process of managers.
- Define operation and capital budgeting, and explain its role in planning, control and decision making.
- Prepare an operating budget, identify its major components, and explain the interrelationships among its various components.
- Explain methods of performance evaluation.
- Use appropriate financial information to make operational decisions.
- Demonstrate use of accounting data in the areas of product costing, cost behavior, cost control, and operational and capital budgeting for management decisions.

## TOPIC OUTLINE

- Introduction to Financial Accounting
- Assets and Liabilities
- Financial Statement Analysis
- Review and Exercises
- Midterm Exam
- Management Accounting
- Cost-Volume-Profit Analysis
- Incremental Analysis
- Responsibility Accounting and Transfer Pricing

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Identify the role and scope of financial and managerial accounting and the use of accounting information in the decision making process of managers.	NO	x	x		
L 2	Define operation and capital budgeting, and explain its role in planning, control and decision making.	NO	x	x		
L 3	Prepare an operating budget, identify its major components, and explain the interrelationships among its carious components.	YES		x	x	x
L 4	Explain methods of performance evaluation.	YES		x	x	x
L 5	Use appropriate financial information to make operational decisions.  Demonstrate use of accounting data in the areas of product costing, cost behavior, cost control, and operational and capital budgeting for management decisions.	YES			x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Burns, Quinn, Warren, and Oliveira (2013). Management Accounting, McGraw-Hill.
- Horngren, C., A. Bhimani, S. Datar and G. Foster (2008). Management and Cost Accounting, Prentice-Hall.
- Anthony, Govindarajan, Hartmann, Kraus and Nilsson (2014). Management Control Systems, McGraw-Hill.
- Zimmerman (2013). Accounting for Decision-making and Control, McGraw-Hill.

## CORE COURSE

# CODE: CIP 203 - THE GLOBAL ECONOMY

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	Understanding of Macroeconomic and Microeconomic Principles
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course is elective. The main goal of the first part of the course is to introduce students to both classical and modern theories of international trade in goods and services, as well as empirical research on trade. A substantial fraction of the course is dedicated to examination of efficient trade policies. The aim of the second part of the course is to introduce students to introductory level of theories of international finance flows, determination of interest and exchange rates in interconnected economies, macroeconomic policies available to the government, and the nature of financial crises.

## COURSE OBJECTIVES

- Compare alternative theories of international trade
- Analyse and test international trade models
- Evaluate the impact of tariffs and non-tariff barriers
- Identify the validity and efficiency of protectionist policies
- Estimate the impact of preferential trade arrangements
- Read and analyse the nation's balance of payment
- Understand how a foreign exchange market operates
- Predict movements in the value of the Euro and other currencies in response to changes in the world economy and macroeconomic policies
- Compare the exchange rate regimes and international monetary standards
- Analyse international investment, banking, debt, and risk
- Explain financial crises in emerging economies, their causes and solutions

## LEARNING OUTCOMES

- Discuss and explain specific policy issues such as 'environmentalism as protectionism'; international dumping; the choice of exchange rate regime; the desirability of free capital flows
- Apply a specific framework to illustrate the connection between a variety of models and approaches. Explain the connections between Ricardian, Heckscher-Ohlin and the specific factors models in trade theory, or between the 'monetary approach' and the 'asset approach' in exchange rate theory
- Explain how international economic theory has been shaped by real world events.

## TOPIC OUTLINE

- An Introduction to International Trade
- Tools of Analysis for International Trade Models
- The Classic Model of International Trade
- The Heckscher-Ohlin Model
- Trade Models
- Alternative Theories
- Tariffs
- Non-tariff Barriers
- Commercial Policy
- Preferential Trade Arrangements
- International Trade and Economic Growth
- An Introduction to International Finance
- The Balance of Payment
- The Foreign Exchange Market
- Prices and Exchange Rates.
- Purchasing Power Parity
- Interest rates and Exchange Rates
- Alternative International Money Standards

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Distinguish various conceptualizations and theories of the (economic) globalization phenomenon, e.g. Ricardian, Heckscher-Ohlin models.	YES	X	X		
L2	Analyze global trade and finance governance structures and assess their policies and role in a global economy.	YES	X	X	X	X
L3	Examine strategies and techniques of trans-national corporations in a global economy.	YES		X	X	X
L4	Determine the key issues and future challenges for the globalized world economy of the 21st century, such as environmentalism as protectionism; international dumping; the choice of exchange rate regime; the desirability of free capital flows	YES	X	X		
L5	Debate the causes and policy actions surrounding economic crises, recognize the underpinnings of the global financial system.	NO	X	X		

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills



## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- International Economics Theory and Policy (International Edition by Paul R. Krugman, Maurice Obstfeld (Author)
- Vonnegut, A. (2018). *Inside the Global Economy, A practical guide*. United Kingdom: Rowman & Littlefield.
- NYU Stern Department of Economics. (2016). *The Global Economy*. USA: New York Institute's Center for Global Economy and Business.
- Recommended articles are available on Moodle, listed under each session.

## CORE COURSE

# CODE: CIP 204 - GLOBAL STRATEGIC MANAGEMENT

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course emphasizes the value and process of strategic management. In addition to familiarizing students with new subject matter, students are expected to integrate and apply their prior learning to strategic decision making in organisations. The Strategic Management course is designed to explore an organisation's vision, mission, examine principles, techniques and models of organisational and environmental analysis, discuss the theory and practice of strategy formulation and implementation such as corporate governance and business ethics for the development of effective strategic leadership.

## LEARNING OBJECTIVES

Upon completion of the course, students should be able to:

- Demonstrate systematic understanding of areas which are fundamental to the development of successful strategy in the global context and a critical awareness of the effects of organisational context, structure and culture on global strategy implementation for innovation, creation and growth of new ventures, and sustainable organisational performance.
- Integrate global strategic thinking into the holistic management of a multinational organisation
- Critically analyse the complexity and the interconnections between various dimensions of multinational enterprises engaged in international activities such as international finance and accounting, international HRM, ethics, sustainability and government-business relations
- Demonstrate an ability to assess the complexities of strategic decision making and effectively play their part in managing resources across national boundaries

## COURSE CONTENT

### UNIT I

Introduction, Strategic Management, Business Policy, Corporate Strategy, Basic Concept of Strategic Management, Mission, Vision, Objectives, Impact of globalization, Basic Model of Strategic Management, Strategic Decision Making.

## UNIT II

Impact of Internet and E-Commerce, Role of Strategic Management in Marketing, Finance, HR and Global Competitiveness.

Environmental Scanning, Industry Analysis, Competitive Intelligence ETOP Study, OCP, SAP Scanning,

## UNIT III

Corporate Analysis, Resource based approach, Value-Chain Approach, Scanning Functional Resources, Strategic Budget and Audit.

SWOT Analysis, TOWS Matrix, Various Corporate Strategies: Growth/ Expansion, Diversification, Stability, Retrenchment & Combination Strategy.

## UNIT IV

Process of Strategic Planning, Stages of corporate development, Corporate Restructuring, Mergers & Acquisitions, Strategic Alliances, Portfolio Analysis, Corporate Parenting, Functional Strategy, BCG Model, GE 9 Cell, Porters Model: 5 Force and Porters Diamond Model, Strategic Choice.

## UNIT V

Strategy Implementation through structure, through Human Resource Management: through values and ethics. Mc Kinsey's 7S Model, Organization Life Cycle, Management and Control, Activity based Costing, Strategic Information System.

Case Study related to the Entire Syllabus.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Demonstrate systematic understanding of areas which are fundamental to the development of successful strategy in the global context and a critical awareness of the effects of organisational context, structure and culture on global strategy implementation for innovation, creation and growth of new ventures, and sustainable organisational performance.	NO	X	X		
L 2	Integrate global strategic thinking into the holistic management of a multinational organisation	NO	X	X	X	
L 3	Critically analyse the complexity and the interconnections between various dimensions of multinational enterprises engaged in international activities such as international finance and accounting, international HRM, ethics, sustainability and government-business relations	YES	X	X	X	X
L 4	Demonstrate an ability to assess the complexities of strategic decision making and effectively play their part in managing resources across national boundaries	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice: 25 % (adjustable)**

## BIBLIOGRAPHY

- Jones, M. (2011) Creative accounting, fraud and international accounting scandals.
- Wiley. Mallin, C. (2010) Corporate Governance, 2nd edition. OUP.
- Gray, R., & Bebbington, J. (2001) Accounting for the Environment.
- Sage Griffiths, I. (1995) New Creative Accounting: how to make to profits what you want them to be.
- Perks, R. (1995) Accounting and Society.
- Hoskisson, Hitt, Ireland & Harrison. Competing for Advantage (3rd ed.). Cengage.
- Barney, Jay B. Gaining and Sustaining Competitive Advantage. FOURTH Edition. Prentice-Hall, NJ.

## CORE COURSE

# CODE: CIP 205 - COMMUNICATION SKILLS SEMINAR

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 1

Course duration: 5 weeks

Total contact hours: 12.5 (7.5hrs Lectures + 5hrs Discussion Forums)

Total exam hours: 1

Total study hours: 15 (10hrs Self-directed + 2hrs Research + 3hrs Specific Assignments) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The seminar is designed to provide a comprehensive overview of organizational communications and enable to effectively create communications strategies including the construction of messages. The course will focus on developing the skills required to effectively create communications strategies aimed to improve the management of organizations.

## COURSE AND LEARNING OBJECTIVES

- Demonstrate critical and innovative thinking.
- Display competence in oral, written, and visual communication.
- Apply communication theories.
- Show an understanding of opportunities in the field of communication.
- Use current technology related to the communication field.
- Respond effectively to cultural communication differences.
- Communicate ethically.
- Demonstrate positive group communication exchanges.

The seminar will have the following outline:

Introduction to Organizational Communication; Business Communication, Communication in Business; Decision-making, Motivation, Feedback and Conflict Management; Strategic Organizational Communication: case studies; Internal Communications Campaigns; Alignment in times of Change and Crisis; Organizational Communication in the Future

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Demonstrate critical and innovative thinking.	YES	X	X		
L 2	Display competence in oral, written, and visual communication; Apply communication theories.	YES	X	X		X
L 3	Show an understanding of opportunities in the field of communication; Use current technology related to the communication field.	NO	X	X	X	X
L 4	Respond effectively to cultural communication differences; Communicate ethically.	NO	X	X	X	X
L 5	Demonstrate positive group communication exchanges.	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- The Social Styles Handbook: Adapt Your Style to Win Trust (Wilson Learning Library), by Tom Kramlinger
- HBR Guide to Better Business Writing, by Bryan A. Garner
- Crucial Conversations: Tools for Talking When Stakes Are High, by Kerry Patterson & Joseph Grenny

## CORE COURSE

# CODE: CIP 300 - OPERATIONS MANAGEMENT

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

### LEARNING OBJECTIVE

The course is designed to make the students familiar with different types of Production, plant layout and material handling, operations planning and control, inventory management, quality management etc. and to acquaint them with appropriate tools and techniques needed for understanding the operational situation and also understanding the logistics management.

At the end of the course the students will be able to:

- Gaining an appreciation of the strategic importance of operations and supply chain management in a global business environment
- Be able to describe the impact of operations and supply chain management on other functions within a firm, as well as on the competitive position of the firm
- Developing a working knowledge of the concepts and methods related to designing and managing operations and to create value along the supply chain.
- Learning a skill set for continuous improvement
- Enable learners to recognise the role of technology & strategy in operations management

#### Unit I

Operations Management – An overview, Definition of production and operations management, Production Cycle, Classification of operations, New Product Development, Product Design, Plant Location, Layout Planning

#### Unit II

Forecasting as a planning tool, Forecasting types and methods, Exponential smoothening, Measurement of errors, Monitoring and Controlling forecasting models, Box- Jenkins Method. Productivity and Work study, Method study, Work Measurement.



Basic Concept & Philosophy of Supply Chain Management; Essential features, Various flows (cash, value and information)

### Unit III

*Recent Issues in SCM* : Role of Computer / IT in Supply Chain Management, CRM Vs SCM, Benchmarking concept, Features and Implementation, Outsourcing-basic concept, Value Addition in SCM-concept of demand chain management.

Production Planning techniques, Routing Decisions, Line of Balance, Scheduling types & principles, master production schedule.

### Unit-IV

Inventory Management – Objectives, Factors, Process, Inventory control techniques- ABC, VED, EOQ, SED,FSN analysis. Basic concepts of quality, dimensions of quality, Juran's quality trilogy, Deming's 14 principles, PDCA cycle, Quality circles, Quality improvement and cost reduction- 7QC tools and 7 new QC tools, ISO 9000-2000 clauses, coverage QS 9000 clauses, coverage. Six Sigma, Total Productive Maintenance (TPM)

### Unit V

*Logistics Management*: Logistics as part of SCM, Logistics costs, different models, logistics sub-system, inbound and outbound logistics, bullwhip effect in logistics, Distribution and warehousing management.

*Purchasing & Vendor management*: Centralized and Decentralized purchasing, functions of purchase department and purchase policies. Use of mathematical model for vendor rating / evaluation, single vendor concept, management of stores, accounting for materials.

## LEARNING OUTCOMES

Gaining an appreciation of the strategic importance of operations and supply chain management in a global business environment .Understand how operations relates to other business functions.

Being able to describe the impact of operations and supply chain management on other functions within a firm, as well as on the competitive position of the firm. Being aware of the global nature of operations and the complexity of supply chains.

Developing a working knowledge of the concepts and methods related to designing and managing operations and to create value along the supply chain. The basic steps involved in bringing a product/service to market from its design through production and delivery.

Learning a skill set for continuous improvement: The ability to conceptualize how systems are interrelated, to organize activities effectively, to analyze processes critically, to make decisions based on data, and to push for continual process improvement.

Enable learners to recognise the role of technology & strategy in operations management

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Gaining an appreciation of the strategic importance of operations and supply chain management in a global business environment	Yes 1, 2, 3, 4, 5	x	x	x	x

L 2	Being able to describe the impact of operations and supply chain management on other functions within a firm, as well as on the competitive position of the firm	Yes 1, 2, 3	x	x		
--------	--	-------------------	---	---	--	--

L 3	Developing a working knowledge of the concepts and methods related to designing and managing operations and to create value along the supply chain.	Yes 1, 2	x	x		
L 4	Learning a skill set for continuous improvement	Yes 3, 5	x	x		x
L 5	Enable learners to recognise the role of technology & strategy in operations management	Yes 4, 5	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- The Goal by Goldratt and Cox. North River Press, 3rd edition, 2004
- Managing Business Process Flows Principles of Operations Management (MBPF) by Anupindi, Chopra, Deshmukh, Van Mieghem and Zemel. Prentice-Hall, 3rd edition, 2011.

## CORE COURSE

# CODE: CIP 301 - STRATEGIC LEADERSHIP IN ORGANIZATIONS

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Strategic Management and Leadership are critical factors for success in the not-for-profit sector. The course seeks to explore general topics of relevance in the fields of Strategic Management and Leadership. This course examines the basic concepts and tools for strategic management. It focuses on the analysis, design and implementation of competitive strategies and takes a management perspective examining how best practices in each functional area are integrated into an overall competitive strategy. Students explore the impact of a workforce on leadership practices and decision making while examining new organizational structures.

This course examines the basic concepts and tools for strategic management. The course focuses on the analysis, design and implementation of competitive strategies from a nonprofit perspective. The course takes a management perspective examining how best practices in each functional area are integrated into an overall competitive strategy. Students explore the impact of a workforce on leadership practices and decision making while examining new organizational structures. Course assignments include assigned readings, class discussions, group/team work, presentations, written reports, memorandums and both individual and group exercises.

## COURSE AND LEARNING OBJECTIVES

- Develop in-depth knowledge of their management and leadership strengths
- Further develop their analytical, oral and written communication skills.
- Identify areas where personal and professional growth might improve their performance.
- Increase their knowledge of critical management tools such as strategic planning
- Draw on theories that have reshaped the concept of leadership
- Use knowledge to make strategic business decisions and enhance organizational effectiveness
- Analyze change management trends
- Demonstrate the ability to think critically in relation to strategic and leadership decisions
- Clearly identify goals and develop strategic ways to use resources to achieve them
- Use enhanced collaboration, team building and management skills to encourage better communication, delegation and trust.
- Decipher the underlying structure of difficult conversations.
- Explore strategic imagination and its role in shaping organizations.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Integrate and apply knowledge of strategic tools and knowledge gained in basic courses to understand the strategic decisions that organizations make.	YES	x	x	x	
L2	Engage in formulation and implementation of business strategy using broad knowledge and understanding of strategic management tools.	YES	x	x	x	x
L3	Holistically and critically analyze and evaluate organizational situations and develop creative solutions, using a strategic management perspective.	YES	x	x	x	x
L4	Conduct and present a credible business analysis and strategic planning in a team setting.	YES	x	x	x	x
L5	Identify and harness individual strengths to enhance leadership and motivation of others towards a strategic vision.	YES		x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

Forum 5% Mandatory

Midterm: > 40% (Recommendation 30%)

Final 30-40%. (Recommendation 40%)

Quizzes Multiple Choice 25 %

## BIBLIOGRAPHY

- Level Three Leadership: Getting Below the Surface Fourth Edition (Clawson, Prentice-Hall, 2008)
- The Art of the Long View: Planning for the Future in an Uncertain World, (Peter Schwartz, Currency Doubleday, 1996)
- Our Iceberg is Melting, (John Kotter and Holger Rathgeber, St. Martin's Press, 2006)

# CODE: CIP 302 - CORPORATE FINANCE

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	CIP202 ADVANCED MANAGERIAL ACCOUNTING
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course focuses on corporate finance from the managerial point of view. Students will engage in vivid discussions about the key considerations behind fundamental choices CFOs face. Students will also gain insight on the company's financial decision-making processes and learn how to make educated financial decisions.

Corporate financial management involves the process through which the corporation creates value through its capital allocation decisions.

Using a blend of quantitative tools and analyses, managers forecast financial needs and opportunities, assess the value of these opportunities, and implement a strategy for achieving the company's financial goals. Major corporate finance decisions include capital budgeting decisions, valuation analysis, financing decisions, risk management, and dividend policy. Students will learn how to analyze how a company functions by looking into the yearly reports disclosed by companies. They will gain knowledge on how to apply the most important ratios (e.g. leverage/ return on investment) and will be able to analyze the company results.

## COURSE AND LEARNING OBJECTIVES

The objective of this course is to cover the theory and practice of corporate finance.

Students progress from a general overview of the financial and corporate world to evaluating companies' investments, planning to raise funds and assessing and valuing the firm. In other words, students explore the fundamentals of corporate finance, the value, the risk, the financing, the debt and payout policies. Students will also learn financial analysis while attempting to reflect on long-term and short-term financial planning. Finance theory and practice are integrated throughout the course, reflecting the extent to which real-world practice has been profoundly shaped by modern developments.

After completing this course, students should be able to:

- Understand the corporate finance theories, concepts and tools, differentiate financial markets to institutions and critically assess the role of accounting versus finance
- Evaluate companies' investments in real assets, by applying the methods to value bonds and stocks as well as using the net present value and the discounted cash-flow analysis.
- Plan to raise funds for companies' investments while developing a plan to raise funds for a company, reviewing the risks of companies' investment and reporting on debt and pay out policies.
- Assess and value the firm by explaining the role of long-term and short-term financial planning and developing a financial analysis.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module ?	A	B	C	D
L 1	Understand the corporate finance theories, concepts and tools, differentiate financial markets to institutions and critically assess the role of accounting versus finance	Yes  1, 3, 5	x	x		x
L 2	Evaluate companies' investments in real assets, by applying the methods to value bonds and stocks as well as using the net present value and the discounted cash-flow analysis	Yes  1, 2, 3, 4, 5	x	x	x	x
L 3	Plan to raise funds for companies' investments while developing a plan to raise funds for a company, reviewing the risks of companies' investment and reporting on debt and pay-out policies	Yes  1, 2, 3, 4, 5	x	x	x	x
L 4	Assess and value the firm by explaining the role of long-term and short term financial planning and developing a financial analysis	Yes  1, 2, 3, 4, 5	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

Brealey, R., Myers, S. and Marcus, A. (2020). Fundamentals of Corporate Finance. McGraw Hill.  
Recommended articles are available on Moodle, listed under each session.

# CODE: CIP 303 - INFORMATION TECHNOLOGY STRATEGY

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums) Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course focuses on the role of Management Information Systems in today's companies. At a time when the percentage of companies' budgets dedicated to IT is increasing, students will learn why technology has gained such an important position in today's business.

Though not a "technical" course, but It will provide an overview of the technology in today's companies and explain how companies make the most of their investment.

## COURSE AND LEARNING OBJECTIVES

This course will provide an overview of the Information technology environment in today's companies and explain how companies make the most of their investment.

At the end of the course the students will be able to:

- Evaluate the impact of different types of information systems common in today's companies
- Examine data resources that companies must access to build effective management of information systems.
- Critically assess the breadth and depth of IT applications for the purpose of developing information systems
- Analyze how efficiently managed systems contribute to the value chain and value web of a company
- Discuss ethical, privacy and security issues related to the use of data and technology in today's business environment.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Asses sed in this module ?	A	B	C	D
L 1	Evaluate the impact of different types of information systems common in today's companies.	Y	✓	✓		
L 2	Examine data resources that companies must access to build effective management of information systems.	Y	✓	✓		



L 3	Critically assess the breadth and depth of IT applications for the purpose of developing information systems.	Y	✓	✓		✓
L 4	Analyze how efficiently managed systems contribute to the value chain and value web of a company.	Y	✓	✓		✓
L 5	Discuss ethical, privacy and security issues related to the use of data and technology in today's business environment.	y	✓	✓		✓

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Austin, Robert D., Lynda M. Applegate, and Deborah Soule. Corporate Information Strategy and Management: Text and Cases. 8th ed. McGraw-Hill, 2008.
- Getting the Most out of Information Systems v. 2.0 by John Gallagher

# CODE: CIP304 - NEGOTIATION SEMINAR

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 2

Course duration: 5 weeks

Total contact hours: 17.5 (7.5hrs Lectures + 10hrs Discussion Forums)

Total exam hours: 2

Total study hours: 28 (20hrs Self-directed + 2hrs Research + 6hrs Specific Assignments) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The purpose of this course is to understand the theory and processes of negotiation so that you can negotiate successfully in a variety of settings. The course is designed to be relevant to the broad spectrum of negotiation problems that are faced by managers and professionals. A basic premise of this course is that while a manager needs analytical skills to discover optimal solutions to problems, a broad array of negotiation skills is also needed to get these solutions accepted and implemented. The course will allow participants the opportunity to develop these skills experientially and to understand negotiation in useful analytical frameworks. If you take advantage of everything that this course has to offer, you will be comfortable and adept in many of your future negotiations.

## COURSE AND LEARNING OBJECTIVES

The seminar's objective is to improve negotiation skills by focusing on Elements of the students' personal Negotiation Model, Principles of Negotiation and Process of Negotiation.

By the end of the course students should be able to:

- Improve their ability to negotiate effectively
- Improve their ability to analyze negotiation situations and the behaviour of others, recognize strategies and tactics used and to respond effectively
- Develop a strategic approach/plan for effective negotiations
- Develop a tool box of 'principled' tactics
- Gain confidence as a negotiator
- Gain a greater understanding of themselves, their strengths and weaknesses

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Improve your ability to negotiate effectively	N	Y	Y		
L 2	Improve your ability to analyse negotiation situations and the behaviour of others, recognize strategies and tactics used and to respond effectively	Y	Y	Y	Y	Y
L 3	Develop a strategic approach/plan for effective negotiations	Y	Y	Y	Y	Y
L 4	Gain confidence as a negotiator	N	Y	Y		
L 5	Gain a greater understanding of yourself, your strengths and your weaknesses	N	Y	Y		

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

Forum 5% Mandatory

Midterm: > 40% (Recommendation 30%)

Final 30-40%. (Recommendation 40%)

Quizzes Multiple Choice 25 %

## BIBLIOGRAPHY

- Lewicki, Saunders and Minton, Essentials of Negotiation, Irwin (Second Edition).
- Moore, The Mediation Process, Jossey Bass (Second Edition)
- Ury, Getting Past No: Negotiating with Difficult People, Bantam.
-

# Course Catalog 2023 – 2024

## **Finance Courses**

*Last revised on March, 2024*

**European Business Institute of Luxembourg**  
Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent.

## **CONTENTS**

CF100 - FOUNDATIONS OF FINANCE	3
CF102 - QUANTITATIVE METHODS FOR FINANCE	16
CF103 FIXED INCOME SECURITIES AND CREDIT MARKETS	23
CF104 - SIMULATED STOCK MARKET PORTFOLIO	29
CF200 RISK MANAGEMENT IN FINANCIAL MARKETS	35
CF201- FINANCIAL MARKETS AND INSTITUTIONS	42
CF202 - FUNDAMENTALS OF BLOCKCHAIN	48
CF203 MICROECONOMIC THEORY,MACRO- &	54
CF204 FINANCIAL LAB; BLOOMBERG TERMINALS/REUTERS EIKON	61
CF300 ADVANCED CORPORATE FINANCE	67
CF301 CORPORATE INVESTMENT AND FINANCIAL POLICY	73
CF302 - MERGERS, BUYOUTS AND CORPORATE	79
CF303 PORTFOLIO MANAGEMENT	85
CF304 CRYPTOCURRENCY PORTFOLIOS AND MOCK COIN DEVELOPMENT SEMINAR	92
CF305 CAPSTONE PROJECT IN FINANCE	98

# **CF100 - FOUNDATIONS OF FINANCE**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

### **Setting**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

### **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

### **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

### **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

### **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.

- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this syllabus and to make changes to the academic curriculum at any time and without prior notice.



## CORE COURSE

## CODE: CF 100 FOUNDATIONS OF FINANCE

### COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course focuses on the practical and conceptual problems associated with financial management. The treatment of all areas involves theoretical concepts and the application of these concepts to contemporary business situations for the purpose of corporate decision-making. All topics reflect the impact on the overall value and risk of the company. Topics covered include, but are not limited to: Accounting statements and cash flow, time value of money, valuation of debt and equity, capital budgeting and project evaluation techniques. In parallel, the course will aim to identify how such aforementioned can be implemented/complemented in open blockchain models that allow challenges and opportunities.

### LEARNING CONTENT AND OBJECTIVES

Foundations of Finance is designed to familiarise students with the components of the financial system as well as to introduce them to the basic ideas underpinning finance, including the time value of money, diversification, arbitrage and Fintech. In doing so, the course provides students with the introductory exposure to financial transactions, institutions and markets including debt, equity foreign exchange and derivative markets and the instruments traded therein.

On satisfying the requirements for this course, students will have the knowledge and skills to

- Understand financial transactions, institutions and markets, including money markets, stock markets, foreign exchange, derivatives markets and contracts.
- Understand the ideas behind the time value of money and be able to calculate the value of cash flows relating to a number of financial instruments.
- Understand the concept of diversification, including the risk and return relationship and have the ability to calculate optimal weights for a portfolio comprising of two financial assets
- Understand concepts in Fintech for risk management purposes.

#### Unit 1: An Introduction To Financial Management

- Financial Statement Analysis
- Ratio Analysis

**Unit 2: Discounted Cash Flow**

- Time Value of Money
- NPV, Profitability Index

**Unit 3: Risk & Return, Capital Asset, & Pricing Model**

- Arbitrage pricing
- Beta, CAPM

**Unit 4: Stock Valuation, Financial Markets**

- Fundamentals & Ratio Analysis
- ETFs, Derivatives and Hedging

**Unit 5: Market Efficiency & Behavioral Finance**

- Ratio Analysis
- Sharpe ratio

**Unit 6: Cost of Capital & Valuation**

- WACC
- Decision Criteria

**Unit 7: Capital Structure**

- Debt & Equity Assessment
- Growth Strategies

**Unit 8: Capital Budgeting**

- NPV, IRR
- Capital Rationing

**Unit 9: Fintech**

- Big Data
- Cryptocurrencies and Blockchain

**Unit 10: International Corporate Finance**

- Strategic Planning
- Risk management
- Global Financial Markets
- Ethical considerations

**LEARNING OUTCOMES**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand financial transactions, institutions and markets, including money markets, stock markets, foreign exchange, derivatives markets and contracts.	YES	x	x		
L2	Understand the ideas behind the time value of money and be able to calculate the value of cash flows relating to a number of financial instruments.	YES	x	x		
L3	Understand the concept of diversification, including the risk and return relationship and have the ability to calculate optimal weights for a portfolio comprising of two financial assets.	YES			x	x

L4	Understand concepts in Fintech for risk management purposes.	YES	x	x		
----	--	-----	---	---	--	--

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Fundamentals of Corporate Finance, Brealey et. al, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students’ case solutions and their peer-evaluations.

Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students’ posts. Students are encouraged to express their own opinions, which may differ from the others’, including the instructor’s one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CODE:CF101 - FINANCIAL REPORTING AND STATEMENT ANALYSIS**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by, forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.

- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF101 FINANCIAL REPORTING AND STATEMENT ANALYSIS

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Course description: Financial Reporting and Statement Analysis introduces students to intermediate financial accounting issues. Tangible and intangible assets, leases, changes in Shareholders Equity, Statement of Cash flows and Consolidation are the main topics covered. IAS/ IFRS standards are vast and complex and will be investigated. The course adopts the decision-maker perspective of accounting, emphasizing the relationship between the reported data and the underlying economic events that generated them, providing prospective users of financial statements with a clear understanding of the accounting fundamentals as effective financing and investment decision-makers. A deep financial statement analysis will be required. Students will be asked to prepare a fundamental analysis of a listed company.

## LEARNING OBJECTIVES AND OUTCOMES

This course will explore and help students to:

- Provide a detailed analysis of Tangible, Intangible, Leases and Stockholder Equity items;
- Determine the impact of different financial reporting alternatives and of management choices on the recognition and valuation of operations;
- Prepare and interpret Cash-flow statements;
- Understand the relevant concepts for consolidation of accounts;
- Produce a well-structured financial report's analysis linking the examination of the financial statements to the company's strategy and to its investment and financial decisions.

On successful completion of the course students should be able to:

- Describe and apply the basic techniques of financial statement analysis;
- Explain the relationship between strategic business analysis, accounting analysis and financial analysis;
- Identify and utilize value-relevant information contained within financial statements;
- Recognize and explain the fundamental role of accounting numbers in the valuation of entities and the key financial claims on these entities assets (equity and debt securities);
- Understand the impact of financial reporting choices on the usefulness of reported earnings to predict future performance;
- Prepare a written analysis of a listed company, which incorporates and synthesizes the strategic, accounting and financing techniques covered in the course;
- Work effectively in a team environment

#### **Unit 1: Basic Financial Statements**

- Introduction to Financial Statements
- Ethics Fraud and Governance

#### **Unit 2: Property, Plant and Equipment**

- Depreciation
- Acquisition

#### **Unit 3: Intangible Assets: Concept and Valuation**

- Goodwill
- Amortization

#### **Unit 4: Stockholders Equity and Paid-In Capital**

- Corporations
- Market Value

#### **Unit 5: Statement of Cash Flows**

- Preparation of Statements
- Managing Cash Flow

#### **Unit 6: Consolidation Financial Statements:**

- Harmonization of Reporting/IFRS
- Foreign Subsidies and reporting

#### **Unit 7: Financial Statement Analysis**

- Tools of analysis
- The measure of liquidity, risk, profitability
- Ethical considerations

## **LEARNING OUTCOMES**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Describe and apply the basic techniques of financial statement analysis;	YES	X	X	X	X
L2	Explain the relationship between strategic business analysis, accounting analysis and financial analysis;	YES	X	X	X	X



L3	Identify and utilize value-relevant information contained within financial statements;	YES	X	X	X	X
L4	Recognize and explain the fundamental role of accounting numbers in the valuation of entities and the key financial claims on these entities assets (equity and debt securities); Understand the impact of financial reporting choices on the usefulness of reported earnings to predict future performance;	YES	X	X	X	X
L5	Prepare a written analysis of a listed company, which incorporates and synthesizes the strategic, accounting and financing techniques covered in the course; Work effectively in a team environment	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Financial and Managerial Accounting, Williams et al., McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students’ case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students’ posts. Students are encouraged to express their own opinions, which may differ from the others’, including the instructor’s one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is

recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF102 - QUANTITATIVE METHODS FOR FINANCE**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall

learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of

knowledge/expertise.

- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

## CODE: CF102 QUANTITATIVE METHODS FOR FINANCE

### COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course reviews descriptive statistics, exploratory data, and probability distributions. We will then examine the theory and methods of statistical inference, emphasizing those applications most useful in modelling business problems. Topics include sampling theory, estimation, hypothesis testing, linear regression, analysis of variance, and several advanced applications of the general linear model.

### LEARNING OBJECTIVES AND OUTCOMES

- To provide a basic understanding of the value and use of quantitative methods in administrative and operational problem solving and decision-making.
- To develop an understanding of a variety of statistical and quantitative techniques applicable to a wide range of business situations.
- To recognize particular techniques and their applications so as to be able to apply these techniques in problem-solving for management decision making.

At the end of the course, students will have

- learned and understood the value of quantitative methods in administrative and operational problem solving and decision-making.
- they will be introduced to a variety of statistical and quantitative techniques applicable to a wide range of business situations.
- students will be able to recognize and apply techniques and their applications in problem-solving for decision making.

- students will be introduced to quantitative business methods such as decision theory, forecasting, simple linear regression, linear programming as well as optional topics multiple linear regression and queuing theory.
- students will be introduced to software tools and their use for problem-solving and decision making in applications such as linear programming and regression models.
- students will apply quantitative techniques to business problem situations and analyse the results.

#### **Unit 1: Descriptive Statistics/Predictive Analytics**

- Dot plots, stem and leaf
- Descriptive analytics

#### **Unit 2: Probability and Probability Models**

- Elementary rules
- Bayes Theorem

#### **Unit 3: Hypothesis Testing**

- The null and alternative hypothesis
- t-tests, z tests,

#### **Unit 4: Simple Linear Regression**

- Modelling simple regression and assumptions
- Testing significance

#### **Unit 5: Multiple regression and model Building**

- Modelling multiple regression
- Dummy variables

#### **Unit 6: Time Series and forecasting**

- Components and models in forecasting
- Smoothing

## **LEARNING OUTCOMES**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	learned and understood the value of quantitative methods in administrative and operational problem solving and decision-making.	NO	X	X	X	
L2	They will be introduced to a variety of statistical and quantitative techniques applicable to a wide range of business situations.	NO	X	X	X	
L3	Students will be able to recognize and apply techniques and their applications in problem-solving for decision making.	YES	X	X	X	X

L4	Students will be introduced to quantitative business methods such as decision theory, forecasting, simple linear regression, linear programming as well as optional topics multiple linear regression and queuing theory.	NO	X	X	X	
L5	Students will be introduced to software tools and their use for problem-solving and decision making in applications such as linear programming and regression models.	NO	X	X	X	
L6	Students will apply quantitative techniques to business problem situations and analyse the results.	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills  
– Transferable Skills

D

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Business Statistics in Practice, Bowerman et al., McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students’ case solutions and their peer-evaluations.

Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students’ posts. Students are encouraged to express their own opinions, which may differ from the others’, including the instructor’s one. Debates with arguments are encouraged.



PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF103 FIXED INCOME SECURITIES AND CREDIT MARKETS**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the

descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:

- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded. We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF103 FIXED INCOME SECURITIES AND CREDIT MARKETS

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Course description: The goals of this course are to describe important fixed income securities and markets and develop tools for valuing fixed income securities and managing interest rate risk. The course covers traditional bonds and term structure concepts as well as fixed-income derivatives and interest rate modelling.

## LEARNING OBJECTIVES AND OUTCOMES

- Introduce important fixed income securities such as bonds, forward rate agreements, futures, swaps, interest rate options (Caps, Floors, and Swap options)
- Develop tools for pricing and hedging the fixed income securities
- Discuss tools for managing interest rate risk
- Introduce term structure models

On completion of the course, students will be able to:

- Identify and distinguish between the different types of fixed income securities;
- Demonstrate how to apply derivative instruments to hedge the risks and enhance the returns of fixed income securities;
- Make use of analytic tools in bond portfolio management and interest rate risk management;
- Identify various sources of credit risk and apply structural models to estimate the risk

**Unit 1: Introduction and Valuation of Fixed Cash Flows**

- Valuation
- Yield to maturity
- No arbitrage valuation

**Unit 2: The Interest Rate Sensitivity of Instruments with Fixed Cash Flows**

- Duration and convexity

**Unit 3: Introduction to Variable Cash Flows**

- Floating rate notes
- Inverse floaters
- Interest rate Swap

**Unit 4: Valuation and Interest Rate Sensitivity of Interest-Rate Dependent Cash Flows**

- Valuing cash flows
- Characteristics of Interest rates

**Unit 5: Fixed-Income Options**

- Callable bonds
- Caps, floors
- Swap options

**Unit 6: The Credit Market**

- Credit risk
- Credit default swaps

**LEARNING OUTCOMES**

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Identify and distinguish between the different types of fixed income securities;	NO	X	X	X	X
L2	Demonstrate how to apply derivative instruments to hedge the risks and enhance the returns of fixed income securities;	YES	X	X	X	X
L3	Make use of analytic tools in bond portfolio management and interest rate risk management;	YES	X	X	X	X
L4	Identify various sources of credit risk and apply structural models to estimate the risk	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Colquitt, J., Credit Risk Management: How to Avoid Lending Disasters and Maximise Earnings, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF104 - SIMULATED STOCK MARKET PORTFOLIO**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with



the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by, forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

#### CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### COURSE EVALUATION

Course evaluation: Study Load per 2 ECTS course	Total 57.5 hrs.
- Lectures: one hour per week for (5 weeks)	7.5 hours
- Self-directed content learning & preparation: 4 hours per week (5 weeks)	20 hours
- Specific assignments: 1 x 1 hour assignment	1 hour
- Research assignments for Module	2 hours
- Course Preparation and Discussion Forums: 4 hours per week for 5 Weeks	20 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded. We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF104 SIMULATED STOCK MARKET PORTFOLIO

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 2

Course duration: 5 weeks

Total contact hours: 15 (5hrs Lectures + 10hrs Discussion Forums) Total exam hours: 2

Total study hours: 28 (20hrs Self-directed + 2hrs Research + 6hrs Specific Assignments) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This seminar will provide the student with the tools necessary for simulating a portfolio and evaluating investments, including stocks, bonds, options and commodities. Additionally, it presents a systematic methodology for constructing efficient portfolios and evaluating portfolio performance.

## LEARNING OBJECTIVES AND OUTCOMES

At least 20 transactions in stocks (domestic and international markets). 10 of these securities will be towards the buy-and-hold strategy (1 each of the 10 securities). Students will buy options in Calls and Puts as well as ETF's and commodities. Week starts on Monday and ends on Sunday. Minimum 12 transactions each week. Students keep a log of the stock, as to why they bought or why you sold them. All transactions will be new transactions. A report is to be turned in at the end of the semester. At the end of the game (end of 12th week of starting the game), all accounts will be closed and all account details may be deleted from the simulation site website. There will be one formal presentation of the complete game.

Upon completion of this course, the student should be able to:

- Understand and utilize the principles of risk and return and diversification in the analysis of investments and portfolios
- Appreciate and include the effects of the external environment (political, economic and cultural for both the domestic and global map)
- Identify, analyze, evaluate and select investment choices from among the various types of investments including stocks, bonds, commodities and derivatives

- Determine investment goals based on current conditions, needs and plans and the near and long term future
- Construct artificial and actual portfolios using strategies that reflect investment goals and financial conditions

### Unit 1: Investments and background issues

Key definitions, investment vehicles, algorithms of decision making.

- Key definitions
- Investment vehicles

### Unit 2: Investment Instruments

- Fundamental Analysis
- Indicators

### Unit 2: Strategies and tools

- Technical indicators
- Graph analysis,
- Candlesticks patterns
- Bollinger bands

## LEARNING OUTCOMES

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand and utilize the principles of risk and return and diversification in the analysis of investments and portfolios	NO	X	X		
L2	Appreciate and include the effects of the external environment (political, economic and cultural for both the domestic and global map)	NO	X	X		
L3	Identify, analyze, evaluate and select investment choices from among the various types of investments including stocks, bonds, commodities and derivatives	NO	X	X		
L4	Determine investment goals based on current conditions, needs and plans and the near and long term future	YES	X	X	X	X
L5	Construct artificial and actual portfolios using strategies that reflect investment goals and financial conditions	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: "An Introduction to Financial Markets and Institutions" by Burton, Nesiba and Lombra, published by Thomson / South-Western. This book is recommended not required.

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in "course weightings" section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF200 RISK MANAGEMENT IN FINANCIAL MARKETS**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

2 ECTS Seminars are scheduled over the duration of the semester and all courses finish within one semester. Certificate seminar courses consist of 20 contact hours and a total of 2 exam hours. Contact hours are usually scheduled as 7.5 hours (1.5) class sessions in the semester and 2 hours of discussion forum per week for 5 weeks. Research assignments and course preparation amount to 13 hours. Midterm and final exams take place as per the instructors decision.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by, forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.

- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 2 ECTS course</b>	<b>Total 57.5 hrs.</b>
- Lectures: one hour per week for (5 weeks)	7.5 hours
- Self-directed content learning & preparation: 4 hours per week (5 weeks)	20 hours
- Specific assignments: 1 x 1 hour assignment	1 hour
- Research assignments for Module	2 hours
- Course Preparation and Discussion Forums: 4 hours per week for 5 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.



## CORE COURSE

# CODE: CF200 RISK MANAGEMENT IN FINANCIAL MARKETS

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course explains different types of financial crises, why financial intermediaries exist, how to identify, measure and manage risks in financial institutions. The focus is on interest rate risk, market risk, credit risk, and foreign exchange and liquidity risks. The course gives a good understanding of how to run financial institutions, sovereign debt crises and how to regulate markets to avoid crises. This process, known as the risk management process, is becoming an increasingly important tool in the management of a business and personal financial health. An effective and efficient corporate risk management program leads to knowledge and control of costs and an improved bottom line. The risk management process involves identification of risks and associated potential costs, analysis of the causes of risk of financial loss, determination of various strategies to treat risk, selection of strategies appropriate to the goals and objectives of the business, implementation of the selected strategies, management and monitoring of results. Making adjustments, adapting to external and internal forces, and crisis or disaster management are incorporated in the corporate risk management process.

## LEARNING OBJECTIVES AND OUTCOMES

This course will examine the way in which business and society make an assessment of, control and transfer risk. The goal of this course is to engage students in active discovery of risk management principles. Students will be prepared to function in a business environment, developing an awareness of the challenges, the tools, and the process of designing and implementing a risk management program. This course focuses on the ways in which businesses and society assess, control, and transfer risk.

Upon completion of the course, students will know the main concepts to quantify and manage all kind of risks of financial institutions. They will:

- Understand the meaning of risk and the ethical considerations
- Know the role and purpose of risk management.
- Be conversant with the core elements of the risk management process.
- Understand the different categories of risk.
- Critically be able to assess current trends in risk management.
- Have the ability to evaluate the position of insurance within risk management.
- Understand the key risk management lessons learnt from major loss events

#### **Unit 1: Understanding the meaning of risk**

- Risk and certainty
- Probability theory
- Risk perception
- Ethical Considerations

#### **Unit 2: The Role and purpose of risk management**

- Benefits of risk management
- Roles and responsibilities, management, compliance and audit functions

#### **Unit 3: The core elements of the risk management process**

- Risk register
- Risk management standards
- Regulatory and corporate governance context

#### **Unit 4: Categories of risk**

- Financial, operational, Insurance strategic and reputation
- Categorising risks
- Cause, events and effects

#### **Unit 5: Current trends in risk management**

- Enterprise risk management (ERM)
- Governance Risk and Compliance (GRC)
- Risk aggregation and correlation

#### **Unit 6: Insurance within Risk management**

- Alternatives to insurance, risk transfer

#### **Unit 7: Key lessons from major loss events**

- Examples,
- Consequences of failure in risk management systems

## LEARNING OUTCOMES

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the meaning of risk and the ethical considerations	NO	X	X	X	X
L2	Know the role and purpose of risk management.	NO	X	X	X	X
L3	Be conversant with the core elements of the risk management process	YES	X	X	X	X
L4	Understand the different categories of risk.	YES	X	X	X	X
L5	Critically be able to assess current trends in risk management.	YES	X	X	X	X
L6	Have the ability to evaluate the position of insurance within risk management.	YES	X	X	X	X
L7	Understand the key risk management lessons learnt from major loss events	NO	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Measuring and Managing Credit Risk, Servigny & Renault, McGraw Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are

responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF201- FINANCIAL MARKETS AND INSTITUTIONS**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.

- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF201 FINANCIAL MARKETS AND INSTITUTIONS

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course gives fundamental knowledge on the structure, function and role of the financial system in light of the complex web of links and interconnections with the banking sector. The course will cover financial intermediaries, financial instruments and the different markets where credit institutions are active players.

## LEARNING OBJECTIVE AND OUTCOME

The objective of this course is to provide students with an introduction to the theory and practice of financial markets and institutions.

- To help students to gain a thorough understanding of the workings of financial markets and of financial instruments
- To introduce the students to the management of financial markets and institutions in an international context

On completion of this course, the student will be able to:

- understand and critically discuss economic principles behind the determination of interest rates.
- Be conversant with what determines the demand and supply of money.
- communicate thoughts and critically discuss why financial institutions exist.
- understand and critically discuss how the prices of equities are determined and different degrees of stock market efficiency.
- evaluate and distinguish between different types of money and bond markets instruments and how these markets work.



**Unit 1: Fundamentals of Financial Markets**

- Interest rates and valuation
- The behaviour of interest rates

**Unit 2: Fundamentals of Institutions**

- Financial Crisis
- Central Banks and Monetary Policy

**Unit 3: Financial Markets**

- Money Markets
- Bond Markets
- Stock Markets
- Forex Markets
- Decentralised Markets and Fintech

**Unit 4: Financial Institutions**

- Banking and Management
- Financial Regulation
- Banking Industry/OTC
- Ethical considerations and governance

**LEARNING OUTCOMES**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	understand and critically discuss economic principles behind the determination of interest rates..	YES	X	X	X	X
L2	Be conversant with what determines the demand and supply of money.	YES	X	X	X	X
L3	communicate thoughts and critically discuss why financial institutions exist.	YES	X	X	X	X
L4	understand and critically discuss how the prices of equities are determined and different degrees of stock market efficiency.	YES	X	X	X	X
L5	evaluate and distinguish between different types of money and bond markets instruments and how these markets work	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Financial Markets and Institutions, Saunders, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF202 - FUNDAMENTALS OF BLOCKCHAIN TECHNOLOGIES**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall

learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of

knowledge/expertise.

- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments.

Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF202/BSDL200 FUNDAMENTALS OF BLOCKCHAIN TECHNOLOGIES

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The goal of this course is to empower students on how to work within and competently understand the changes occurring in Fintech. This course will allow students to effectively learn the use of digital cryptocurrencies. In this course, the student will develop an appreciation and understanding of how to apply their knowledge as a technical and operational skill to enable and impact business and economic spheres through a total grasp of the interoperability that has driven the interest and adoption of cryptocurrencies in business and government.

## LEARNING OBJECTIVE AND OUTCOME

In learning about the disruptive force of Fintech, students will apply themselves in a project-based approach to learning that builds upon a foundational understanding of the Blockchain. They will apply this learning to real-world challenges and questions in order to fully understand the benefits, limits and disruptive force of the Blockchain.

When the course is complete students be able to:

- Competently engage in digital currency purchases
- Understand the implications of the blockchain in finance
- Engage employers in the beneficial cost efficiencies of the blockchain
- Adopt the crypto technology to a bespoke corporate requirement

**Unit 1: Overview of the technology**

- Basic technical description of blockchain technology
- History and achievements

**Unit 2: Cryptographic hashes**

- Item Definition
- SHA 256/DSHA256/SHA3
- Encryption
- Digital signatures

**Unit 3: How Bitcoin works**

- Blockchain structure
- Distributed consensus

**Unit 4: Bitcoin ecosystem**

- Hard soft forks
- Wallets hot/cold
- Exchanges
- Mining

**Unit 5: Beyond Bitcoin**

- Decentralization
- Private blockchains
- Altcoins
- Smart contracts

**Unit 6: Digital currency challenges**

- Scalability
- Identity
- Proposed solutions

**LEARNING OUTCOMES**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Competently engage in mock digital currency purchases	YES	X	X	X	X
L2	Understand the implications of the blockchain in finance	NO	X	X	X	X
L3	Engage employers in the beneficial cost efficiencies of the blockchain	NO	X	X	X	X
L4	Adopt the crypto technology to a bespoke corporate requirement	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: "Bitcoin and Cryptocurrency Technologies" by Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller and Steven Goldfeder.

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in "course weightings" section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.



# **CF203 MICROECONOMIC THEORY,MACRO- & MONETARY ECONOMICS**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## COURSE CONTENT AND LEARNING OUTCOMES

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

### SETTING

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

### CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

### CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

### CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.

- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

#### **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF203 MICROECONOMIC THEORY, MACRO & MONETARY ECONOMICS

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course is an introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis will be placed on the allocation of resources and distribution of income through the price system. In addition, this course will also focus on aggregative economics, including national income, monetary and fiscal policy, and international trade.

## LEARNING OBJECTIVE AND OUTCOME

In the first part of this course, students will develop simple graphical and mathematical models of decision-making by individual economic agents: consumers, workers, and businesses. They will analyze interactions between these agents in product and factor markets using concepts of market demand, supply, and equilibrium. Finally, we demonstrate the efficiency of perfectly competitive markets, describe the conditions under which that efficiency arises, and examine market failures that occur when those conditions are not met. The second part of the course students explore how GDP, inflation, unemployment, and other macroeconomic aggregates are measured in practice. The second part develops analytical models of macroeconomic performance and growth in the long run. This part also focuses on short-run (business-cycle) fluctuations and fiscal and monetary policies.

At the completion of this course, students will be able to:

- identify the microeconomic foundations of the macroeconomy and explain how these foundations inform the performance of the macroeconomy.
- identify essential measures for assessing micro and macroeconomic performance

- explain contemporary theories of economic growth, evaluate these theories in light of economic performance, and apply one or several of the theories to predict economic performance.
- describe component elements in micro and macro theory,
- elucidate the full aggregate demand/aggregate supply model and explain its origins, uses, and limitations.
- develop a full model illustrating the connection of the financial sector to the micro and macroeconomy and describe the components of the financial sector, how they have evolved, and what factors have influenced their evolution. –
- analyze and evaluate alternative models explaining the role of fiscal and monetary policy in the domestic and international macroeconomics.

#### **Unit 1: Supply and Demand**

- Scarcity
- Opportunity cost

#### **Unit 2: Elasticity and its applications**

- Demand and supply measures
- Cross price elasticity

#### **Unit 3: Supply-demand and government policies**

- Positive and Negative Externalities
- Carbon Credits and Government intervention

#### **Unit 4: Efficiency of Markets**

- The pricing mechanism
- Simple linear regression

#### **Unit 5: Theory of the Firm**

- Profit maximization modelling
- Efficiency measures

#### **Unit 6: Measuring a nation's income**

- GDP, GNP
- Net and Gross National Income

#### **Unit 7: Unemployment**

- NAIRU
- Types of unemployment

#### **Unit 8: The Monetary system**

- Quantum Theory of Money
- Monetary Policy

#### **Unit 9: Aggregate Demand and Aggregate Supply**

- Keynesian economics
- Neoclassic theory
- Fiscal vs. Monetary

## LEARNING OUTCOMES

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Identify the microeconomic foundations of the macroeconomy and explain how these foundations inform the performance of the macroeconomy. identify essential measures for assessing micro and macroeconomic performance	YES	X	X	X	X
L2	explain contemporary theories of economic growth, evaluate these theories in light of economic performance, and apply one or several of the theories to predict economic performance.	YES	X	X	X	X
L3	describe component elements in micro and macro theory, elucidate the full aggregate demand/aggregate supply model and explain its origins, uses, and limitations.	YES	X	X	X	X
L4	develop a full model illustrating the connection of the financial sector to the micro and macroeconomy and describe the components of the financial sector, how they have evolved, and what factors have influenced their evolution. –	YES	X	X	X	X
L5	analyze and evaluate alternative models explaining the role of fiscal and monetary policy in the domestic and international macroeconomics.	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Macro-economics, Collander, McGraw-Hill; Principles of Microeconomics, Frank, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions

and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

**Team-work.** Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

**Peer-evaluation.** The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

**DISCUSSION FORUMS** are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

**PROJECT.** Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

**EXAMS.** The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF204 FINANCIAL LAB; BLOOMBERG TERMINALS/REUTERS EIKON**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors



proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate

to a subject/discipline/sector, for example:

- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 2 ECTS course</b>	<b>Total 57.5 hrs.</b>
- Lectures: one hour per week for (5 weeks)	7.5 hours
- Self-directed content learning & preparation: 4 hours per week (5 weeks)	20 hours
- Specific assignments: 1 x 1 hour assignment	1 hour
- Research assignments for Module	2 hours
- Course Preparation and Discussion Forums: 4 hours per week for 5 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments.

Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

## CODE: CF204 FINANCIAL LAB; BLOOMBERG TERMINALS/ REUTERS EIKON

### COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 2

Course duration: 5 weeks

Total contact hours: 15 (5hrs Lectures + 10hrs Discussion Forums) Total exam hours: 2

Total study hours: 28 (20hrs Self-directed + 2hrs Research + 6hrs Specific Assignments) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course is an introduction to Bloomberg, the global financial markets database providing news, analytics, real-time pricing for over 5 million securities worldwide plus extensive historical pricing and stock charts. This is also an introduction to Eikon, a professional platform from Thomson Reuters which includes historical and current data for equities and other asset classes including commodities, fixed income and money markets.

### LEARNING OBJECTIVE AND OUTCOME

- This course is designed to teach students the nature and availability of financial data. The focus of the course will be on equity, futures, FX, options, swaps, CDS, interest rate swaps etc. They will learn to navigate a Bloomberg terminal. Students will also cover the Thomson–Reuters Tick history data and basics of using this data.

After taking this course, students will be able to:

- Understand how to navigate the available data using the Bloomberg terminal.
- Retrieve relevant information for their projects.
- Learn how to use Bloomberg Excel API.
- Understand how to navigate Eikon and Thomson Reuters Sirca Historical Data.
- Perform simple data analysis on data sets.

### Unit 1: Bloomberg Navigation

- Introduction
- Hanlon Financial Systems Lab overview

### Unit 2: Bloomberg Fundamental Analysis

- Equity
- Fixed Income
- Forex

### Unit 3: Thomson Reuters Tick

- Web interface and API

## LEARNING OUTCOMES

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand how to navigate the available data using the Bloomberg terminal.	NO	X	X	X	X
L2	Retrieve relevant information for their projects.	YES	X	X	X	X
L3	Learn how to use Bloomberg Excel API.	YES	X	X	X	X
L4	Understand how to navigate Eikon and Thomson Reuters Sirca Historical Data.	NO	X	X	X	X
L5	Perform simple data analysis on data sets.	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: To be provided

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF300 ADVANCED CORPORATE FINANCE**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the

descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.

- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

#### **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.



## CORE COURSE

## CODE: CF300 ADVANCED CORPORATE FINANCE

### COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course provides students with an understanding of how companies can grow and consolidate their financial position. Mergers and acquisitions (M&A) are studied as a way of consolidating companies. Most firms grow their business in four ways: organically, via acquisitions, by way of alliances, or through strategic acquisitions. Organic growth includes investing in technology, creating new products, and hiring new people. Alliances, joint ventures, strategic acquisitions, and mergers, which are often handled by the M&A division of an investment bank. The second part of the course provides students with concepts, principles and a basic understanding of derivative-related financial instruments (Forwards, Futures, Swaps and Options) and their use in investment and Corporate Financial Management. This course will also be looking to investigate the role of Fintech in relation to benchmark currencies and market exchanges.

### LEARNING OBJECTIVE AND OUTCOME

- Explain financial markets and functions of corporate finance
- Calculate and Interpret the time value of money and the discount cash flow
- Identify factors that drive M&A activity
- Understand the IPO and role of VCs
- Calculate and analyze different components of the derivatives market, including SWAPS and futures
- Classify and distinguish various types of risk and market opportunities

A key objective of this course is to develop analytical tools for making a sound investment and financing decisions while developing reasoning and analytical thinking skills.

On successful completion of this course, students will be able to:

- Critically evaluate theoretical research in corporate finance
- Explain the implications of theory for practical financial management
- Compare various models of investment decision-making under uncertainty
- Investigate the impact of alternative financing proposals that a firm may face in both the short and long term and argue recommendations

#### **Unit 1: Basic Concepts in valuation. DCF Valuation**

- DCF Valuation
- Cash flow estimates

#### **Unit 2: Mergers/Corporate Restructuring**

- Leveraged Buyouts
- Mergers and Acquisitions
- Due Diligence

#### **Unit 3: How Companies issue Securities**

- Venture Capital
- IPOs
- Rights Issues
- Private Placement

#### **Unit 4: Derivatives and Risk Management/ Forwards and Futures**

- Risk and risk management
- Stock index futures

#### **Unit 5: Swaps**

- Interest rates SWAPS
- Currency SWAPS
- Commodities SWAPS

#### **Unit 6: Options**

- Fundamentals, calls, puts
- Advanced options strategies (straddles)

#### **Unit 7: International Currency Markets**

- Forex markets, exchange and arbitrage
- SDRs, Forex and digital currencies
- Ethical considerations

### **LEARNING OUTCOMES**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Critically evaluate theoretical research in corporate finance	YES	X	X	X	X
L2	Explain the implications of theory for practical financial management	YES	X	X	X	X
L3	Compare various models of investment decision-making under uncertainty	YES	X	X	X	X

L4	Investigate the impact of alternative financing proposals that a firm may face in both the short and long term and argue recommendations	YES	X	X	X	X
----	--	-----	---	---	---	---

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Fundamentals of Corporate Finance, Brealey et. al, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students’ case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students’ posts. Students are encouraged to express their own opinions, which may differ from the others’, including the instructor’s one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF301 CORPORATE INVESTMENT AND FINANCIAL POLICY**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

1 ECTS seminars are scheduled over the duration of the semester and all courses finish within one semester. Certificate seminar courses consist of 7.5 (1.5) contact hours. Contact hours are usually scheduled as five (5) one (1) hour class sessions in the semester and 2 hours of discussion forum per week for 5 weeks. Research assignments and course preparation amount to 11 hours. Assessments take place as per the instructors decision.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.

- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments.

Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF301 CORPORATE INVESTMENT AND FINANCIAL POLICY

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course examines techniques and issues in corporate finance with a focus on corporate investment decisions. The course covers several aspects of valuation in a corporate setting: estimation of free cash flow, stock valuation along with recognition of growth opportunities, risk management strategies, estimation of beta using online data, and specifying market scenarios to identify sustainable growth outcomes when evaluating investment proposals. Further topics include merger and acquisition strategies, the examination of options embedded in corporate capital structures, incentive-aligning compensation including executive stock options, and techniques for measuring financial performance including Economic Value Added.

## LEARNING OBJECTIVE AND OUTCOME

- To understand the characteristics of various financial policies including investment in assets and capital structure
- To understand the key factors affecting financial performance
- To understand the features of specific forms of domestic and international business finance and identify the circumstances when each is appropriate
- To understand the key variables affecting financial performance, and
- To understand the principles of risk minimisation strategies including exchange rate and interest rate risk management.

On successful completion of this course, students will be able to:

- Apply percent of sales approach to identify external financing needed at a given growth rate, and use formulas and pricing models to measure growth opportunities
- Employ various capital budgeting techniques in decision-making
- Apply option pricing models including real options methods, to evaluate corporate investments
- Utilise leading techniques in the valuation of merger and acquisition strategies
- Analyse corporate investment decisions in the context of corporate diversification and corporate governance

- Identify & apply ethical principles relevant to the finance profession

#### Unit 1: Long term financing

- Bond and stock valuation
- Cost of capital
- Dividend returns

#### Unit 2: Performance Analysis and Business Planning

- Financial Statement Analysis
- Financial Forecasting
- Business valuation
- Bankruptcy and Restructuring

#### Unit 3: Long-term investment decision

- Capital budgeting-Evaluation methods
- Capital Budgeting-Cash flow methods
- Capital Budgeting Risk Analysis
- Lease analysis

#### Unit 4: Working capital policy

- Cash management
- Credit policy/Receivables management
- Hedging Futures and options

### LEARNING OUTCOMES

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Apply percent of sales approach to identify external financing needed at a given growth rate, and use formulas and pricing models to measure growth opportunities	YES	X	X	X	X
L2	Employ various capital budgeting techniques in decision-making	YES	X	X	X	X
L3	Apply option pricing models including real options methods, to evaluate corporate investments	YES	X	X	X	X
L4	Utilise leading techniques in the valuation of merger and acquisition strategies	YES	X	X	X	X
L5	Analyse corporate investment decisions in the context of corporate diversification and corporate governance	YES	X	X	X	X
L6	Identify & apply ethical principles relevant to the finance profession	NO	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills



## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Foundations of Financial Management, Block & Danielsen, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF302 - MERGERS, BUYOUTS AND CORPORATE RESTRUCTURINGS**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the

descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:

- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF302 MERGERS, BUYOUTS AND CORPORATE RESTRUCTURINGS

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course focuses on identifying ways to increase firm value through corporate restructuring. Specific topics include mergers and tender offers, spin-offs, carve-outs, divestitures, takeover defence strategies, bankruptcy and bankruptcy acquisitions, international acquisitions, leveraged buyouts. We will cover the theory, practice and empirical evidence related to each of these topics. Emphasis will be placed on valuation analysis, understanding deal types, understanding expectations on outcomes, transactional evaluation, and strategic considerations.

## LEARNING OBJECTIVE AND OUTCOME

The aim of the course is for the students to understand the motivations, decision processes, transaction execution, and valuation consequences of financial, business, and organizational restructuring by corporate units. The course facilitates developing ability among students to plan, evaluate, and execute corporate restructuring strategies using financial modelling and quantitative techniques. In addition, the objective of this course is to enable students to appreciate the fundamental issues involved in the structure and functioning of the market for corporate control within the framework of finance theory

At the end of this course, students should be able to:

- Discuss the basic steps that the merging firms go through in a typical M&A process, starting from deal initiation until deal completion

- Apply the relevant valuation techniques to assess the values of the assets of the merging firms
- Describe the key negotiation items between the merging firms in a merger process and assess their economic implications for both parties.

#### Unit 1: Valuation Strategies

- Tender offers and the free rider problem
- Measurements of performance
- Current trends in restructuring
- Valuing distressed businesses

#### Unit 2: Structuring transactions

- Mergers vs. Tender Offers
- Means of payment
- Tax effects

#### Unit 3: Takeover defences

- Merger negotiations
- Tactics of takeover attack/defence

#### Unit 4: International M&A

- Measurement of performance
- Drivers of M&A activity

#### Unit 5: Bankruptcy acquisition

- Bankruptcy auctions and fire-sales
- Divestitures, spin-offs, and equity carve-outs
- Distressed debt investments

## LEARNING OUTCOMES

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Discuss the basic steps that the merging firms go through in a typical M&A process, starting from deal initiation until deal completion	NO	X	X	X	X
L2	Apply the relevant valuation techniques to assess the values of the assets of the merging firms	YES	X	X	X	X
L3	Describe the key negotiation items between the merging firms in a merger process and assess their economic implications for both parties.	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum 5% Mandatory**

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

- Bibliography: The Art of M&A: A Merger Acquisition Buyout Guide, Reed & Lajoux, McGraw-Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF303 PORTFOLIO MANAGEMENT**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall



learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

## **SETTING**

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate

to a subject/discipline/sector, for example:

- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 4 ECTS course</b>	<b>Total 113 hrs.</b>
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments.

Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF303 PORTFOLIO MANAGEMENT

## COURSE DETAILS

Course level: Certificate Course category: Core Course Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course will focus on the application of financial theory to the issues and problems of investment management. Topics will include portfolio optimization and asset allocation, the basics of bond pricing and debt portfolio management, the theory of asset pricing models and their implications for investment as well as techniques for evaluating investment management performance. The course will build upon the analytical skills developed in prior courses.

## LEARNING OBJECTIVE AND OUTCOME

Students will learn to design and implement an investment policy statement for an individual or institutional investor that establishes their financial objectives, risk tolerances, constraints, and investment and monitoring policies. Topics include:

- setting investment objectives and policies
- ethical standards and fiduciary duties
- diversification and asset allocation
- capital markets and market efficiency
- equity portfolio management
- fixed-income portfolio management
- alternative investments portfolio management
- evaluating portfolio performance, and monitoring and rebalancing portfolios

Upon completing this course, students will be able to:

- Construct a policy statement reflecting the objectives and risk tolerances of various types of individual and institutional investors.
- Formulate a personal code of ethics based on industry standards and fiduciary duties.
- Evaluate the effect of risk on investment decisions.
- Justify their view on market efficiency using both theoretical and empirical arguments.
- Analyze the gains from diversification and asset allocation
- Develop an integrated portfolio management plan including equities, fixed income assets and alternative investments reflecting the goals, risk tolerance, and circumstances of individual and institutional investors.
- Appraise portfolio performance using appropriate methodologies.
- Assess various monitoring and rebalancing strategies.

#### Unit 1: Securities markets and Investment Vehicles

- Asset classes
- Role of global security exchanges
- Market regulation
- Utility and Risk aversion

#### Unit 2: Portfolio theory and quantitative tools

- Risk and return features
- Sharpe ratio and portfolio efficiency
- CAPM and Markowitz optimization

#### Unit 3: Models with Multiple sources of risk

- APT: Theory
- APT: Estimation

#### Unit 4: Investment Management

- Active vs. passive management
- Liquidity
- International Diversification
- Risk Management
- Ethical considerations

## LEARNING OUTCOMES

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Construct a policy statement reflecting the objectives and risk tolerances of various types of individual and institutional investors.	YES	X	X	X	X
L2	Formulate a personal code of ethics based on industry standards and fiduciary duties.	YES	X	X	X	X

L3	Evaluate the effect of risk on investment decisions.	YES	X	X	X	X
L4	Justify their view on market efficiency using both theoretical and empirical arguments.	YES	X	X	X	X
L5	Analyze the gains from diversification and asset allocation	YES	X	X	X	X
	Develop an integrated portfolio management plan including equities, fixed income assets and alternative investments reflecting the goals, risk tolerance, and circumstances of individual and institutional investors.	YES	X	X	X	X
	Appraise portfolio performance using appropriate methodologies; Assess various monitoring and rebalancing strategies.	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Bibliography: Principles of investment, Bodie, McGraw Hill

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students' case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students' posts. Students are encouraged to express their own opinions, which may differ from the others', including the instructor's one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

# **CF304 CRYPTOCURRENCY PORTFOLIOS AND MOCK COIN DEVELOPMENT SEMINAR**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 20 contact hours and 10 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## COURSE CONTENT AND LEARNING OUTCOMES

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

### SETTING

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

### CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

### CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by, forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

### CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.



- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

#### **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### **COURSE EVALUATION**

<b>Course evaluation: Study Load per 2 ECTS course</b>	<b>Total 57.5 hrs.</b>
- Lectures: one hour per week for (5 weeks)	7.5 hours
- Self-directed content learning & preparation: 4 hours per week (5 weeks)	20 hours
- Specific assignments: 1 x 1 hour assignment	1 hour
- Research assignments for Module	2 hours
- Course Preparation and Discussion Forums: 4 hours per week for 5 Weeks	20 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CF304 CRYPTOCURRENCY PORTFOLIOS AND MOCK COIN DEVELOPMENT SEMINAR

## COURSE DETAILS

Course level: Certificate

Course category: Core Course Course credits: 2

Course duration: 5 weeks

Total contact hours: 20 (10hrs Lectures + 10hrs Discussion Forums) Total exam hours: 2

Total study hours: 28 (20hrs Self-directed + 2hrs Research + 6hrs Specific Assignments) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This seminar covers financial derivatives such as forwards, futures, swaps, and options to show students how to mitigate or even eliminate unwanted risks. The main objective is to help students gain the necessary skills for pricing and hedging of derivative securities, and for using them for investment, risk management, and prediction purposes. The seminar will simulate a wide range of applications and real-life cases, including the use of derivatives in asset management, the valuation of corporate securities such as stocks and corporate bonds, interest rate derivatives, credit derivatives, as well as crude oil derivatives and currency derivatives. It is necessary to stress that students as a prerequisite understand fundamentals in order to explore topics at a technical level.

## LEARNING OBJECTIVE AND OUTCOME

The seminar will consist of five general topics:

- Introduction to Derivative Securities: What is a derivative? Why are derivatives important? Who uses derivatives? Where are they traded? Evolution of this market
- Forward and Future Contracts: Defining, pricing, using, and valuing forward contracts, defining futures; trading futures on simulation; marking-to-market; margins; leverage
- Hedging with Futures: Cross-hedging with index futures; dynamic rolling futures strategies; basis risk; security/maturity mismatch
- Introduction to Swaps: Defining, pricing, using, and valuing swaps
- Introduction to Options: Call and put options; option terminology; margins;
- Simulation activities

At the end of the seminar students will:

- Be able to understand the technical components of a blockchain
- Have created a Blockfolio of cryptocurrencies
- Be in possession of a hot and cold wallet

- Have created a mock coin and tracked its progression in the mining community
- Understand more advanced uses of the blockchain such as escrow services, asset registration, attestation and smart contracts
- Understand alternatives to bitcoin, such as alt-coins, IOU-based systems and Ethereum
- Understand what parallels and differences cryptocurrencies have with the existing monetary and banking systems
- Understand likely frameworks for regulating cryptocurrencies
- Be able to place cryptocurrencies in the context of disruptive innovations and understand their potential for growth or development

#### Unit 1: Introduction to Derivative Securities

#### Unit 2: Forward and Future Contracts

#### Unit 3: Introduction to Swaps

#### Unit 4: Hedging with Futures

#### Unit 5: Introduction to Options

### LEARNING OUTCOMES

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Be able to understand the technical components of a blockchain	YES	X	X	X	X
L2	Have created a Blockfolio of cryptocurrencies Be in possession of a hot and cold wallet Have created a mock coin and tracked its progression in the mining community	YES	X	X	X	X
L3	Understand more advanced uses of the blockchain such as escrow services, asset registration, attestation and smart contracts	NO	X	X	X	X
L4	Understand alternatives to bitcoin, such as alt-coins, IOU-based systems and Ethereum	NO	X	X	X	X
L5	Understand what parallels and differences cryptocurrencies have with the existing monetary and banking systems	NO	X	X	X	X
	Understand likely frameworks for regulating cryptocurrencies Be able to place cryptocurrencies in the context of disruptive innovations and understand their potential for growth or development					

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- No required Textbook. Online readings will be assigned. Derivatives Markets (3rd edition), by Robert L McDonald.
- John C. Hull, Options, Futures, and Other Derivatives (10th Edition)
- Sheldon Natenberg, Option Volatility and Pricing: Advanced Trading Strategies and Techniques (2nd Edition)
- Kerry Back, A Course in Derivative Securities: Introduction to Theory and Computation.

Students are expected to read the material for webinars, participate in discussions, complete all the assignments and exams. Students must at all times conduct themselves in accordance with high ethical standards. Grading follows the criteria set out in “course weightings” section.

ASSIGNMENTS include case studies, discussion forums, course project, exams. Submission deadlines should be followed, and failure to respect them will result in a percentage deduction.

CASE STUDIES. The case study assignments will assess course outcomes, analytical abilities, understanding of theory and its application to practical cases. The case assignments (case descriptions and relevant questions) will be provided by the instructor. The case solutions (answers to the questions) should be submitted by the students according to the course schedule. Answers should be as specific as possible.

Team-work. Some case-studies are supposed to be done in teams of 3-4 students. Teams are responsible for timely written submissions; it is expected that all the students in the teams participate in case preparation.

Peer-evaluation. The case solutions (anonymously) will be assessed by other students. The instructor will assess and give feedback on both: students’ case solutions and their peer-evaluations. Peer-evaluations will also be shown to students (students will see how other students have evaluated their work). The guidelines for peer-evaluation will be given by the instructor.

DISCUSSION FORUMS are assessed based on quality, not on quantity or the size of the students’ posts. Students are encouraged to express their own opinions, which may differ from the others’, including the instructor’s one. Debates with arguments are encouraged.

PROJECT. Course project will include Marketing Plan development for a particular company and product. Project will be done by the students individually. The company and product/service for the project is expected to be chosen by the student; if needed the instructor may help the student with it. It is recommended to choose the company related to the work/experience of the student. The project should be submitted by students in written, by parts, according to the course schedule.

EXAMS. The exams comprise essay-type and mini-case-based questions. Exams will evaluate understanding of the material and the ability to apply marketing theory in practical situations.

## **CORE COURSE**

# **CF305 CAPSTONE PROJECT IN FINANCE**

## **INTRODUCTION**

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 25-30 hours of workload, The EBU course load consists of 900 hours of self-directed study. Contact hours may include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One Certificate in Finance (CF) Certificate semester consists of 10 weeks of class sessions and exam sessions. The capstone course is to be completed 6 months after the end of Term III upon completion of all courses.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester. This course scheduling does not apply to the Final Capstone Project course.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## COURSE CONTENT AND LEARNING OUTCOMES

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by SCQF Scottish Quality and Qualifications Framework, level 11, corresponding also with the descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

### SETTING

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

### CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

### CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by, developments at the forefront.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

### CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

#### CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

#### COURSE EVALUATION

Course evaluation: Study Load per 36 ECTS course	Total 900 hrs.
- Self-directed content preparation, learning & research	900 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.





# Course Catalog

## 2023 – 2024

### **Data Science and Artificial Intelligence Courses**

*Last revised on March, 2024*



**European Business Institute of Luxembourg**  
Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent.

## CONTENTS

<b>INTRODUCTION</b>	<b>3</b>
CODE: CDA100 - DATA SCIENCE IN REAL LIFE	6
CODE: CDA101 - STATISTICS ESSENTIALS	8
CODE: CDA102 - INTRODUCTION TO ARTIFICIAL INTELLIGENCE	11
CODE: CDA103 - DATA SCIENCE WITH R	13
CODE: CDA104 - PYTHON FOR DATA SCIENCE	15
CODE: CDA200 - DATA SCIENCE WITH PYTHON	17
CODE: CDA201 - MACHINE LEARNING	20
CODE: CDA202 - TABLEAU DESKTOP 10	22
CODE: CDA203 - DATA HADOOP & SPARK DEVELOPER	24
CODE: CDA204 - DATA SCIENCE CAPSTONE PROJECT	26
CODE: CDA300 - R PROGRAMMING FOR DATA SCIENCE	28
CODE: CDA301 - DEEP LEARNING FUNDAMENTALS	30
CODE: CDA302 - DEEP LEARNING WITH TENSORFLOW	32
CODE: CDA303 - NATURAL LANGUAGE PROCESSING	34

## **INTRODUCTION**

This catalog provides course syllabi for all certificate in Data Science and Artificial Intelligence (CDA) certificate courses. Unless mentioned otherwise, course structure, as well as course evaluation are standardized for all certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload, consisting of 10 contact hours and 20 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work, research, etc.

One certificate semester consists of 10 weeks of class sessions and exam sessions.

## **COURSE PLANNING**

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## **COURSE SCHEDULING**

Courses are scheduled over the full duration of the semester and all courses finish within one semester. certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 10 of each semester.

## **COURSE STRUCTURE**

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## **COURSE CONTENT AND LEARNING OUTCOMES**

All courses are certificate level and are taught according to a student centered approach. Course content listed should be regarded as indicative course content. Learning outcomes listed are reference points and should be regarded as intended learning outcomes for what students are expected to be able to do at the end of the course. Assessments done in the course should address these learning outcomes. The learning outcomes are established according to Benjamin Bloom's taxonomy for

cognitive learning. Based on this framework, courses at certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

The overall learning of the courses at the certificate program corresponds to the level descriptors of the European Qualifications Framework (EQF) for second cycle qualification. The overall learning of the certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.
- A critical understanding of the principal theories, concepts and principles.
- A critical understanding of a range of specialised theories, concepts and principles.
- Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by, forefront developments.
- In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation or development.
- In demonstrating originality and/or creativity, including in practices.
- To practise in a wide and often unpredictable variety of professional level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualise and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

#### CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS

- Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

#### CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your own work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practise in ways which draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

### COURSE EVALUATION

Course evaluation: Study Load per 4 ECTS course	Total 113 hrs.
- Lectures: one hour and a half per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 4 hours per week (10 weeks)	40 hours
- Formative Assessments/Research assignments	36 hours
- Course Preparation and Discussion Forums: 2 hours per week for 10 Weeks	20 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CDA100 - DATA SCIENCE IN REAL LIFE

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Data Science is the highly sought field of the century. Explore the truth about what Data Science is and hear from real practitioners telling real stories about what it means to work in Data Science and use cases for the same.

### LEARNING OBJECTIVES:

- Gain fundamental knowledge of what is Data Science and what do Data Science people do
- Learn about Data Science in a business context and what is the future of Data Science
- Understand Data Science applications and discover some use cases for Data Science

## CONTENT

Lesson 1 - Defining Data Science

Lesson 2 - What Does a Data Science Professional Do?

Lesson 3 - Data Science in Business

Lesson 4 - Use Cases for Data Science

Lesson 5 - Data Science People

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Gain fundamental knowledge of what is Data Science and what do Data Science people do	No	x	x		
L2	Learn about Data Science in a business context and what is the future of Data Science	YES	x	x		
L3	Understand Data Science applications and discover some use cases for Data Science	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD

## CORE COURSE

# CODE: CDA101 - STATISTICS ESSENTIALS

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	Mathematics - Statistics and Probability
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Statistics is the science of assigning a probability to an event based on experiments. It is the application of quantitative principles to the collection, analysis, and presentation of numerical data. Students will learn the fundamentals of Data Science, statistics, and Machine Learning with this course. It will enable students to define statistics and essential terms related to it, explain measures of central tendency and dispersion, and comprehend skewness, correlation, regression, distribution.

Students will be able to make data-driven predictions through statistical inference.

## LEARNING OBJECTIVES

- Understand the fundamentals of statistics
- Work with different types of data
- How to plot different types of data
- Calculate the measures of central tendency, asymmetry, and variability
- Calculate correlation and covariance
- Distinguish and work with different types of distribution
- Estimate confidence intervals
- Perform hypothesis testing
- Make data-driven decisions
- Understand the mechanics of regression analysis
- Carry out regression analysis
- Use and understand dummy variables
- Understand the concepts needed for data science even with Python and R



## CONTENT

Lesson 1 - Introduction  
 Lesson 2 - Sample or Population Data?  
 Lesson 3 - The Fundamentals of Descriptive Statistics  
 Lesson 4 - Measures of Central Tendency, Asymmetry, and Variability  
 Lesson 5 - Practical Example: Descriptive Statistics  
 Lesson 6 - Distributions  
 Lesson 7 - Estimators and Estimates  
 Lesson 8 - Confidence Intervals: Advanced Topics  
 Lesson 9 - Practical Example: Inferential Statistics  
 Lesson 10 - Hypothesis Testing: Introduction Lesson  
 Lesson 11 - Hypothesis Testing: Let's Start Testing!  
 Lesson 12 - Practical Example: Hypothesis Testing  
 Lesson 13 - The Fundamentals of Regression Analysis  
 Lesson 14 - Subtleties of Regression Analysis  
 Lesson 15 - Assumptions for Linear Regression Analysis  
 Lesson 16 - Dealing with Categorical Data  
 Lesson 17 - Practical Example: Regression Analysis

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the fundamentals of statistics, work with different types of data and Learn how to plot different types of data	YES	X	X	X	X
L2	Calculate the measures of central tendency, asymmetry, and variability Calculate correlation and covariance Distinguish and work with different types of distribution	YES	X	X	X	X
L3	Estimate confidence intervals Perform hypothesis testing Make data-driven decisions	YES	X	X	X	X
L4	Understand the mechanics of regression analysis and carry out regression analysis	YES	X	X	X	X
L5	Use and understand dummy variables Understand the concepts needed for data science even with Python and R	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

**BIBLIOGRAPHY: TBD**

## CORE COURSE

# CODE: CDA102 - INTRODUCTION TO ARTIFICIAL INTELLIGENCE

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Introduction to Artificial Intelligence course is designed to help learners decode the mystery of Artificial Intelligence and understand its business applications. The course provides an overview of Artificial Intelligence concepts and workflows, Machine Learning, Deep Learning, and performance metrics.

Students learn the difference between supervised, unsupervised, and reinforcement learning-be exposed to use cases, and see how clustering and classification algorithms help identify Artificial Intelligence business applications.

## LEARNING OBJECTIVES:

- Meaning, purpose, scope, stages, applications, and effects of Artificial Intelligence
- Fundamental concepts of Machine Learning and Deep Learning
- Difference between supervised, semi-supervised and unsupervised learning
- Machine Learning workflow and how to implement the steps effectively
- The role of performance metrics and how to identify their essential methods

## CONTENT

Lesson 1 - Decoding Artificial Intelligence

Lesson 2 - Fundamentals of Machine Learning and Deep Learning

Lesson 3 - Machine Learning Workflow

Lesson 4 - Performance Metrics

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Meaning, purpose, scope, stages, applications, and effects of Artificial Intelligence	YES	x	x	x	x
L2	Fundamental concepts of Machine Learning and Deep Learning	YES	x	x	x	x

L3	Difference between supervised, semi-supervised and unsupervised learning	YES	x	x	x	x
L4	Machine Learning workflow and how to implement the steps effectively	YES	x	x	x	x
L5	The role of performance metrics and how to identify their essential methods	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD

## CORE COURSE

# CODE: CDA103 - DATA SCIENCE WITH R

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	Mathematics - Statistics and Probability
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Students will learn the major step to a data scientist being learning R - the upcoming and most in-demand open source technology. R is an extremely powerful Data Science and analytics language which has a steep learning curve and a very vibrant community. This is why it is quickly becoming the technology of choice for organizations who are adopting the power of analytics for competitive advantage

## LEARNING OBJECTIVES:

- Gain a foundational understanding of business analytics
- Install R, R-studio, and workspace setup, and learn about the various R packages
- Master R programming and understand how various statements are executed in R
- Gain an in-depth understanding of data structure used in R and learn to import/export data in R
- Define, understand and use the various apply functions and DPYR functions
- Understand and use the various graphics in R for data visualization Gain a basic understanding of various statistical concepts
- Understand and use hypothesis testing method to drive business decisions
- Understand and use linear, non-linear regression models, and classification techniques for data analysis
- Learn and use the various association rules and Apriori algorithm
- Learn and use clustering methods including K-means, DBSCAN, and hierarchical clustering

## CONTENT

Lesson 1 - Introduction to Business Analytics  
 Lesson 2 - Introduction to R Programming  
 Lesson 3 - Data Structures  
 Lesson 4 - Data Visualization  
 Lesson 5 - Statistics for Data Science I  
 Lesson 6 - Statistics for Data Science II  
 Lesson 7 - Regression Analysis  
 Lesson 8 - Classification  
 Lesson 9 - Clustering  
 Lesson 10 - Association

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Gain a foundational understanding of business analytics Install R, R-studio, and workspace setup, and learn about the various R packages	YES	x	x	x	x
L2	Master R programming and understand how various statements are executed in R Gain an in-depth understanding of data structure used in R and learn to import/export data in R	YES	x	x	x	x
L3	Define, understand and use the various apply functions and DPLYR functions	YES	x	x	x	x
L4	Understand and use the various graphics in R for data visualization Gain a basic understanding of various statistical concepts	YES	x	x	x	x
L5	Understand and use hypothesis testing method to drive business decisions	YES	x	x	x	x
L6	Understand and use linear, non-linear regression models, and classification techniques for data analysis	YES	x	x	x	x
L7	Learn and use the various association rules and Apriori algorithm	YES	x	x	x	x
L8	Learn and use clustering methods including K-means, DBSCAN, and hierarchical clustering	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

Forum 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD

## CORE COURSE

# CODE: CDA104 - PYTHON FOR DATA SCIENCE

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	Intermediate Python Programming Course
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Students will review Python for Data Science with this introductory course and familiarize themselves with programming. Carefully crafted by EBU, upon completion of this course students will be able to write Python scripts, perform fundamental hands-on data analysis using the Jupyter- based lab environment, and create their own Data Science projects.

## LEARNING OBJECTIVES:

- Write a Python program by implementing concepts of variables, strings, functions, loops, conditions
- Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes
- Work with data in Python such as reading and writing files, loading, working, and saving data with Pandas

## CONTENT

Lesson 1 - Python Basics

Lesson 2 - Python Data Structures

Lesson 3 - Python Programming Fundamentals

Lesson 4 - Working with Data in Python

Lesson 5 - Working with NumPy arrays

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Write a Python program by implementing concepts of variables, strings, functions, loops, conditions	YES	x	x	x	x
L2	Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes	YES	x	x	x	x
L3	Work with data in Python such as reading and writing files, loading, working, and saving data with Pandas	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD



## CORE COURSE

# CODE: CDA200 - DATA SCIENCE WITH PYTHON

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	CDA104 PYTHON FOR DATA SCIENCE (4 ECTS)
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This Data Science with Python course will establish student mastery of Data Science and analytics techniques using Python. With this Python for Data Science Course, students learn the essential concepts of Python programming and gain in-depth knowledge in data analytics, Machine Learning, data visualization, web scraping, and natural language processing. Python is a required skill for many Data Science positions, so this is an essential interactive, hands-on course.

## LEARNING OBJECTIVES:

- Gain an in-depth understanding of Data Science processes, data wrangling, data exploration, data visualization, hypothesis building, and testing. You will also learn the basics of statistics
- Install the required Python environment and other auxiliary tools and libraries
- Understand the essential concepts of Python programming such as data types, tuples, lists, dicts, basic operators and functions
- Perform high-level mathematical computing using the NumPy package and its vast library of mathematical functions
- Perform scientific and technical computing using the SciPy package and its sub-packages such as Integrate, Optimize, Statistics, IO, and Weave
- Perform data analysis and manipulation using data structures and tools provided in the Pandas package
- Gain expertise in Machine Learning using the Scikit-Learn package
- Gain an in-depth understanding of supervised learning and unsupervised learning models such as linear regression, logistic regression, clustering, dimensionality reduction, K-NN and pipeline

- Use the Scikit-Learn package for natural language processing Use the matplotlib library of Python for data visualization
- Extract useful data from websites by performing web scraping using Python
- Integrate Python with Hadoop, Spark, and MapReduce

## CONTENT

Lesson 1 - Data Science Overview

Lesson 2: Data Analytics Overview

Lesson 3: Statistical Analysis and Business Applications

Lesson 4: Python Environment Setup and Essentials

Lesson 5: Mathematical Computing with Python (NumPy)

Lesson 6 - Scientific computing with Python (Scipy) Lesson

7 - Data Manipulation with Pandas

Lesson 8 - Machine Learning with Scikit-Learn

Lesson 9 - Natural Language Processing with Scikit Learn

Lesson 10 - Data Visualization in Python using matplotlib. Visualize data in python using matplotlib and plot them.

Lesson 11 - Web Scraping with BeautifulSoup

Lesson 12 - Python integration with Hadoop MapReduce and Spark

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Gain an in-depth understanding of Data Science processes, data wrangling, data exploration, data visualization, hypothesis building, and testing.	YES	x	x	x	x
L2	Install the required Python environment and other auxiliary tools and libraries, Understand the essential concepts of Python programming such as data types, tuples, lists, dicts, basic operators and functions	YES	x	x	x	x
L3	Perform high-level mathematical computing using the NumPy package and its vast library of mathematical functions	YES	x	x	x	x
L4	Perform scientific and technical computing using the SciPy package and its sub-packages such as Integrate, Optimize, Statistics, IO, and Weave	YES	x	x	x	x
L5	Perform data analysis and manipulation using data structures and tools provided in the Pandas package	YES	x	x	x	x
L6	Gain expertise in Machine Learning using the Scikit-Learn package Gain an in-depth understanding of supervised learning and unsupervised learning models such as linear regression, logistic regression, clustering, dimensionality reduction, K-NN and pipeline	YES	x	x	x	x
L7	Use the Scikit-Learn package for natural language processing Use the matplotlib library of Python for data visualization	YES	x	x	x	x

L8	Extract useful data from websites by performing web scraping using Python Integrate Python with Hadoop, Spark, and MapReduce	YES	x	x	x	x
----	---	-----	---	---	---	---

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

### Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

**BIBLIOGRAPHY: TBD**

## CORE COURSE

# CODE: CDA201 - MACHINE LEARNING

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrsResearch)

Language of instruction: English

Recommended	CDA104 PYTHON FOR DATA SCIENCE (4 ECTS) Mathematics - Statistics and Probability
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This Machine Learning course examines automation of data analysis to enable computers to learn and adapt through experience to do specific tasks without explicit programming. Students will master Machine Learning concepts and techniques, including supervised and unsupervised learning, mathematical and heuristic aspects, and hands-on modeling to develop algorithms and prepare students for their role with advanced Machine Learning knowledge.

## LEARNING OBJECTIVES:

- Master the concepts of supervised and unsupervised learning, recommendation engine, and time series modeling
- Gain practical mastery over principles, algorithms, and applications of Machine Learning through a hands-on approach that includes working on four major end-to-end projects and 25+ hands-on exercises
- Acquire thorough knowledge of the statistical and heuristic aspects of Machine Learning
- Implement models such as support vector machines, kernel SVM, naive Bayes, decision tree classifier, random forest classifier, logistic regression, K-means clustering and more in Python
- Validate Machine Learning models and decode various accuracy metrics. Improve the final models using another set of optimization algorithms, which include Boosting and Bagging techniques
- Comprehend the theoretical concepts and how they relate to the practical aspects of Machine Learning

## COURSE CONTENT

Lesson 1: Introduction to Artificial Intelligence and Machine Learning

Lesson 2: Data Preprocessing

Lesson 3: Supervised Learning

Lesson 4: Feature Engineering

Lesson 5: Supervised Learning-Classification

Lesson 6: Unsupervised Learning

Lesson 7: Time Series Modelling

Lesson 8: Ensemble Learning

Lesson 9: Recommender Systems

Lesson 10: Text Mining

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Master the concepts of supervised and unsupervised learning, recommendation engine, and time series modeling	YES	x	x	x	x
L2	Gain practical mastery over principles, algorithms, and applications of Machine Learning through a hands-on approach that includes working on four major end-to-end projects and 25+ hands-on exercises	YES	x	x	x	x
L3	Acquire thorough knowledge of the statistical and heuristic aspects of Machine Learning	YES	x	x	x	x
L4	Implement models such as support vector machines, kernel SVM, naive Bayes, decision tree classifier, random forest classifier, logistic regression, K-means clustering and more in Python					
L5	Validate Machine Learning models and decode various accuracy metrics. Improve the final models using another set of optimization algorithms, which include Boosting and Bagging techniques	YES	x	x	x	x
L6	Comprehend the theoretical concepts and how they relate to the practical aspects of Machine Learning	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD



## CORE COURSE

# CODE: CDA202 - TABLEAU DESKTOP 10

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Tableau Desktop 10 training will help students master the various aspects of the program and gain skills such as building visualization, organizing data, and designing dashboards. Students will also learn concepts of statistics, mapping, and data connection. It is an essential asset to those wishing to succeed in Data Science.

## LEARNING OBJECTIVES:

- Grasp the concepts of Tableau Desktop 10, become proficient with statistics and build interactive dashboards
- Master data sources and data blending, create data extracts and organize and format data
- Master arithmetic, logical, table and LOD calculations and ad-hoc analytics
- Become an expert on visualization techniques such as heat map, tree map, waterfall, Pareto, Gantt chart and market basket analysis
- Learn to analyze data using Tableau Desktop as well as clustering and forecasting techniques
- Gain command of mapping concepts such as custom geocoding and radial selections
- Master Special Field Types and Tableau Generated Fields and the process of creating and using parameters
- Learn how to build interactive dashboards, story interfaces and how to share your work

## CONTENT

Lesson 1 - Getting Started with Tableau

Lesson 2 - Working with Tableau

Lesson 3 - Deep diving with Data and Connections  
 Lesson 4 - Creating Charts  
 Lesson 5 - Adding Calculations to your workbook  
 Lesson 6 - Mapping Data in Tableau  
 Lesson 7 - Dashboards and Stories Lesson  
 8 - Visualizations for an Audience

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Grasp the concepts of Tableau Desktop 10, become proficient with statistics and build interactive dashboards	YES	x	x	x	x
L2	Master data sources and data blending, create data extracts and organize and format data	YES	x	x	x	x
L3	Master arithmetic, logical, table and LOD calculations and ad-hoc analytics	YES	x	x	x	x
L4	Become an expert on visualization techniques such as heat map, tree map, waterfall, Pareto, Gantt chart and market basket analysis	YES	x	x	x	x
L5	Learn to analyze data using Tableau Desktop as well as clustering and forecasting techniques	YES	x	x	x	x
L6	Gain command of mapping concepts such as custom geocoding and radial selections	YES	x	x	x	x
L7	Master Special Field Types and Tableau Generated Fields and the process of creating and using parameters	YES	x	x	x	x
L8	Learn how to build interactive dashboards, story interfaces and how to share your work	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD



## CORE COURSE

# CODE: CDA203 - DATA HADOOP & SPARK DEVELOPER

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	CDA101 STATISTICS ESSENTIAL (4 ECTS)
Co-requisites	CDA104 PYTHON FOR DATA SCIENCE (4 ECTS)
Prohibited Combinations	N/A

## COURSE OVERVIEW

This Big Data Hadoop Training Course helps students master Big Data and Hadoop Ecosystem tools, such as HDFS, YARN, MapReduce, Hive, Pig, HBase, Spark, Flume, Hadoop Frameworks, and additional concepts of Big Data processing life cycle. Throughout this online instructor-led Hadoop Training, students will gain an understanding of how the different components in the eco system come together to enable data ingestion, processing and analysis.

## LEARNING OBJECTIVES:

- Learn how to navigate the Hadoop Ecosystem
- Understand Hadoop cluster architecture and various operations
- Ingest real time data using Flume
- Implement partitioning, bucketing, and indexing in Hive
- Work with RDD in Apache Spark

## CONTENT

Lesson 1- Introduction to Big Data and Hadoop

Lesson 2 – Introduction to different components of Hadoop Ecosystem

Lesson 3 - Hadoop Cluster Architecture – HDFS and HDFS Operations

Lesson 4 - MapReduce Framework Lesson 5 - Hadoop YARN

Lesson 6 - Hadoop Ecosystems - Hive Lesson 7 - Hadoop Ecosystems – Pig Lesson 8 - Hadoop Flume – Streaming Data Ingestion using Flume

Lesson 9 - Introduction to Apache Spark, RDD

Lesson 10 - Data sharing using Spark RD

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Learn how to navigate the Hadoop Ecosystem and understand how to optimize its use	YES	x	x	x	x
L2	Perform DataFrame operations in Spark using HIVE SQL	YES	x	x	x	x
L3	Implement partitioning, bucketing, and indexing in Hive	YES	x	x	x	x
L4	Streaming Data Ingestion using Flume	YES	x	x	x	x
L5	Work with RDD in Apache Spark	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Hadoop – The Definitive Guide by Tom White, O'Reilly Publications
- Hadoop Operations by Eric Sammers, O'Reilly Publications

## CORE COURSE

# CODE: CDA204 - DATA SCIENCE CAPSTONE PROJECT

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: N/A

Total contact hours: N/A

Total exam hours: N/A

Total study hours: Self-directed Research 76hrs

Language of instruction: English

Pre-requisites	Completion of Term I, II and III courses
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This Data Science Capstone project will give students an opportunity to implement the skills learned throughout this Program by putting into practice the knowledge and skills they have learned during their coursework. Students will learn how to solve a real-world, industry-aligned Data Science problem, from data processing and model building and showcase business results and insights. The project is one of the final steps in the Program.

Students will continue this Capstone independently. This is therefore an opportunity to independently develop and implement a data science solution and explore potential employment partnerships. Students should showcase their expertise in Data Science to future or current employers.

## LEARNING OBJECTIVES:

- The Problem / Challenge; Describe the problem or challenge to be addressed in the project. Include the context of the problem such as the organization, locality, industry etc.
- Data Acquisition; Describe the source and method used to acquire the data for the project
- Data Processing; In this step, students will apply various data processing techniques to make raw data meaningful. Students must subscribe to SQL coding resource <https://www.blazesql.com>
- Model Building and Fitting - This will be performed using Machine Learning algorithms like regression, multinomial Naïve Bayes, SVM, tree-based algorithms, etc.
- Unsupervised Learning - Clustering to group similar kind of transactions/reviews using NLP and related techniques to devise meaningful conclusions.
- Model Deployment - Deploy the model and demonstrate its working in a real-world scenario.
- Results - are to be submitted in the Submission Area for final evaluation as per the rubric

**CONTENT**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Data Processing - In this step, students will apply various data processing techniques to make raw data meaningful.	YES	x	x	x	x
L2	Model Building - Students will leverage techniques such as regression and decision trees to build Machine Learning models that enable accurate and intelligent predictions. Students may explore Python, R or SAS to build your model. Students will follow the complete model-building exercise from data split to test and training and validating data using the k-fold cross-validation process.	YES	x	x	x	x
L3	Model Fine-tuning - Students will apply various techniques to improve the accuracy of their model and select the champion model that provides the best accuracy.	YES	x	x	x	x
L4	Dashboarding and Representing Results - As the final step, students will be required to export their results into a dashboard with meaningful insights using Tableau	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

**Assessments**

Pass/Fail/Pass with Distinction

Mandatory Midterm Exam: N/A

Final Exam: N/A

Quizzes Multiple Choice: N/A

**BIBLIOGRAPHY: TBD**

## CORE COURSE

# CODE: CDA300 - R PROGRAMMING FOR DATA SCIENCE

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	CDA100 DATA SCIENCE IN REAL LIFE (4 ECTS) and CDA101 STATISTICS ESSENTIAL (4 ECTS)
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Students to gain insight into the R Programming language with this introductory course. An essential programming language for data analysis, R Programming is a fundamental key to becoming a successful Data Science professional. In this course students will learn how to write R code, learn about R's data structures, and create your own functions. After the completion of this course, students will be fully able to begin their first data analysis.

## LEARNING OBJECTIVES:

- Learn about math, variables, and strings, vectors, factors, and vector operations
- Gain fundamental knowledge on arrays and matrices, lists, and data frames
- Get understanding on conditions and loops, functions in R, objects, classes, and debugging
- Learn how to accurately read text, CSV and Excel files plus how to write and save data objects in R to a file
- Understand and work on strings and dates in R

## CONTENT

Lesson 1 - R Basics

Lesson 2 - Data Structures in R

Lesson 3 - R Programming Fundamentals

Lesson 4 - Working with Data in R Lesson 5  
- Stings and Dates in R

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Learn about math, variables, and strings, vectors, factors, and vector operations	YES	X	X	X	X

L2	Gain fundamental knowledge on arrays and matrices, lists, and data frames	YES	X	X	X	X
L3	Get understanding on conditions and loops, functions in R, objects, classes, and debugging	YES	X	X	X	X
L4	Learn how to accurately read text, CSV and Excel files plus how to write and save data objects in R to a file	YES	X	X	X	X
L5	Understand and work on strings and dates in R	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD

## CORE COURSE

# CODE: CDA301 - DEEP LEARNING FUNDAMENTALS

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	CDA100 DATA SCIENCE IN REAL LIFE (4 ECTS) and CDA101 STATISTICS ESSENTIAL (4 ECTS) Mathematics - Linear Algebra
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course is designed to help students learn the fundamentals of Deep Learning. It will make students familiar with the concepts of Deep Learning, Convolutional neural networks, and the effectiveness of Deep Learning. This course examines the rapidly growing field in Data Science with neural networks .

## LEARNING OBJECTIVES:

- Gain understanding of Deep Learning
- Understand Deep Learning models such as convolutional networks, recurrent nets, Autoencoders, Recursive Neural Tensor Nets, and Deep Learning Use Cases
- Comprehend Deep Learning platforms and software libraries

## CONTENT

Lesson 1 - Introduction to Deep Learning

Lesson 2 - Deep Learning Models

Lesson 3 - Additional Deep Learning Models

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Gain understanding of Deep Learning	YES	x	x	x	x
L2	Understand Deep Learning models such as convolutional networks, recurrent nets, Autoencoders, Recursive Neural Tensor Nets, and Deep Learning Use Cases	YES	x	x	x	x
L3	Comprehend Deep Learning platforms and software libraries	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBD



## CORE COURSE

# CODE: CDA302 - DEEP LEARNING WITH TENSORFLOW

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	CDA101 STATISTICS ESSENTIAL (4 ECTS) , CDA104 PYTHON FOR DATA SCIENCE (4 ECTS), and CDA201 MACHINE LEARNING (4 ECTS)
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Deep Learning with Tensorflow will refine the students Machine Learning knowledge and make them an expert in Deep Learning using TensorFlow. Students will master the concepts of Deep Learning and TensorFlow to build artificial neural networks and traverse layers of data abstraction. This course will help students learn to unlock the power of data and in Artificial Intelligence.

## LEARNING OBJECTIVES:

- Understand the difference between linear and non-linear regression
- Comprehend Convolutional Neural Networks and their applications
- Gain familiarity on Recurrent Neural Networks (RNN) and Autoencoders
- Learn how to filter with Restricted Boltzmann Machine

## CONTENT

Lesson 1 - Introduction to TensorFlow

Lesson 2 – Convolutional Neural Networks (CNN)

Lesson 3 – Recurrent Neural Networks (RNN)

Lesson 4 - Unsupervised Learning

Lesson 5 - Autoencoders

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the difference between linear and non-linear regression	YES	x	x	x	x
L2	Comprehend Convolutional Neural Networks and their applications	YES	x	x	x	x

L3	Gain familiarity on Recurrent Neural Networks (RNN) and Autoencoders	YES	x	x	x	x
L4	Learn how to filter with Restricted Boltzmann Machine	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

### Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY: TBD

## CORE COURSE

# CODE: CDA303 - NATURAL LANGUAGE PROCESSING

## COURSE DETAILS

Course level: certificate

Course category: Core Course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 35 (15hrs Lectures + 20hrs Discussion Forums)

Total exam hours: 4

Total study hours: 76 (40hrs Self-directed + 36hrs Research)

Language of instruction: English

Recommended	Term I and Term II Courses
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This Natural Language Processing course will give Students a detailed look at the science behind applying Machine Learning algorithms to process large amounts of natural language data. Students will learn the concepts of Natural Language understanding, Feature Engineering, Natural Language Generation and Speech Recognition techniques.

## LEARNING OBJECTIVES:

- Learn how to perform text processing and find a pattern
- Find the most relevant document by applying TF-IDF
- Write a script for applying parts-of-speech and extraction on focus words
- Create your own NLP module
- Classify the cluster for articles
- Create a basic speech model
- Convert speech to text

## CONTENT

Lesson 1 - Introduction to Natural Language Processing

Lesson 2 - Feature Engineering on Text Data

Lesson 3 - Natural Language Understanding Techniques

Lesson 4 - Natural Language Generation

Lesson 5 - Natural Language Processing Libraries

Lesson 6 - Natural Language Processing with Machine Learning and Deep Learning

Lesson 7 - Speech Recognition Technique

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Learn how to perform text processing and find a pattern	YES	x	x	x	x

L2	Find the most relevant document by applying TF-IDF	YES	x	x	x	x
L3	Write a script for applying parts-of-speech and extraction on focus words	YES	x	x	x	x
L4	Create your own NLP module	YES	x	x	x	x
L5	Classify the cluster for articles	YES	x	x	x	x
L6	Create a basic speech model	YES	x	x	x	x
L7	Convert speech to text	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

**BIBLIOGRAPHY: TBD**



# Course Catalog

## 2023 – 2024

### CE Education Courses

*Last revised on March, 2024*



**European Business Institute of Luxembourg**

Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent.

## CONTENTS

<b>INTRODUCTION</b>	<b>3</b>
CODE: CE100 - EDUCATION IN CONTEXT: HISTORY, PHILOSOPHY AND SOCIOLOGY	6
CODE: CE101 TEACHING FOR DIVERSE AND INCLUSIVE CLASSROOMS	9
CODE: CE200 CONTEMPORARY GLOBAL CHALLENGES IN EDUCATION POLICY AND LEADERSHIP PRACTICE	12
CODE: CE201 LEARNING THEORY AND IMPLICATIONS FOR INSTRUCTION	15
CODE: CE300 GAMES AND VIRTUAL SIMULATIONS FOR LEARNING	18
CODE: CE301 CURRICULUM DESIGN AND INSTRUCTIONAL DECISION MAKING	23
CODE: CE102 ASSESSMENT AND EVALUATION	26
CODE: CE103 CREATING POSITIVE CLASSROOM ENVIRONMENTS	29
CODE: CE202 INSTRUCTIONAL TECHNIQUES FOR THE PRIMARY AND MIDDLE SCHOOL CLASSROOM	32
CODE: CE203 SPECIAL EDUCATIONAL NEEDS: INCLUSIVE APPROACHES	36
CODE: CE302 INTEGRATION OF LEARNING TECHNOLOGY	40
CODE: CE303 ADVANCED PRACTICES FOR TEACHING THE STEM FIELDS	43

## INTRODUCTION

This catalog provides course syllabi for all Certificate of Education (CE) Certificate courses. Unless mentioned otherwise, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU CE course load consists of 30-40 contact hours and 200-240 study hours. Contact hours include lectures, discussion forums, and examinations and study hours include independent study, practical work, and research forums, etc. One Certificate semester consists of 10 weeks of class sessions.

## COURSE PLANNING

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites. A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## COURSE SCHEDULING

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 35 contact hours, 1-2 midterm exam hours, and 2 final exam hours. Contact hours are usually scheduled as 15 hours (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid-term exams take place in week 5 and final exams take place in week 10 of each semester.

## COURSE STRUCTURE

Students are provided a strong theoretical foundation and are introduced to the various concepts to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions through real-life examples and comprehensive case studies.

## COURSE CONTENT AND LEARNING OUTCOMES

All courses are Certificate level and are taught according to a student-centered approach. Course content listed should be regarded as indicative course content. Learning outcomes listed are reference points and should be regarded as intended learning outcomes for what students are expected to be able to do at the end of the course.

Assessments done in the course should address these learning outcomes. The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate-level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

The overall learning of the courses at the Certificate program corresponds to the level descriptors proposed by European Quality (EQF), corresponding with the descriptors for second-cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.



The descriptor for the second cycle is in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005. This is in the framework of the Bologna process corresponding to the learning outcomes for EQF level 7.

## **SETTING**

- Operational Context: The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- Autonomy and responsibility for actions: The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology, and conventions.
- A critical understanding of the principal theories, concepts, and principles.
- A critical understanding of a range of specialized theories, concepts, and principles.
- Extensive, detailed, and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
- A critical awareness of current issues in a subject/discipline/sector and one or more specialisms.

## **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS, AND UNDERSTANDING**

- Apply knowledge, skills, and understanding:
- In using a significant range of the principal professional skills, techniques, practices, and/or materials associated with the subject/discipline/sector.
- In using a range of specialized skills, techniques, practices, and/or materials that are at the forefront of, or informed by forefront developments.
- In applying a range of standard and specialized research and/or equivalent instruments and techniques of enquiry.
- In planning and executing a significant project of research, investigation, or development.
- In demonstrating originality and/or creativity, including in practices.
- To practice in a wide and often unpredictable variety of professional-level contexts.

## **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Apply critical analysis, evaluation, and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector.
- Identify, conceptualize and define new and abstract problems and issues.
- Develop original and creative responses to problems and issues.
- Critically review, consolidate and extend knowledge, skills, practices, and thinking in a subject/discipline/sector.
- Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.

## **CHARACTERISTIC 4: COMMUNICATION, ICT, AND NUMERACY SKILLS**

- Use a wide range of routine skills and a range of advanced and specialized skills as appropriate to a subject/discipline/sector, for example:
- Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise.
- Communicate with peers, more senior colleagues, and specialists.
- Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit the purpose.
- Undertake critical evaluations of a wide range of numerical and graphical data.

## CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY, AND WORKING WITH OTHERS

- Exercise substantial autonomy and initiative in professional and equivalent activities.
- Take responsibility for your work and/or significant responsibility for the work of others.
- Take significant responsibility for a range of resources.
- Work in a peer relationship with specialist practitioners.
- Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.
- Practice in ways that draw on critical reflection on your own and others' roles and responsibilities.
- Manage complex ethical and professional issues and make informed judgements on issues not addressed by current professional and/or ethical codes or practices.

## COURSE EVALUATION

Course evaluation: Study Load per 10 ECTS course	Total 245 hrs.
- Lectures: one hour per week for (10 weeks)	15 hours
- Self-directed content learning & preparation: 9 hours per week (10 weeks)	90 hours
- Specific assignments: 3 x 3-hour assignments	9 hours
- Formative Assessments/Research assignments	4 hours
- Course Preparation and Discussion Forums: 2.5 hours per day for 10 Weeks	125 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CORE COURSE

# CODE: CE100 - EDUCATION IN CONTEXT: HISTORY, PHILOSOPHY AND SOCIOLOGY

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course will examine the role of education across time and in different places in the world and the social and political influences that shaped the goals and structure of today's diverse educational systems. The contributions of classical and modern thinkers and their impact on contemporary education and the role and function of the teacher will be explored. Analysis of globalization and the nature of different educational systems and values will provide a context for reflecting on one's philosophy of education.

### Required Textbook and Materials:

The main required textbooks for this course are listed below and can be readily accessed. There may be additional required/recommended readings, supplemental materials, or other resources and websites necessary for lessons; these will be provided for you in the course's General Information and Forums area, and throughout the term via the weekly course Unit areas and the Learning Guides.

This course does not contain a main textbook; resources to all required reading will be provided in the course Learning Guide for each week.

## LEARNING CONTENT AND OBJECTIVES:

By the end of this course students will be able to:

- Examine the changing role of educational and instructional models (active learning, critical thinking), multiculturally, and/or overtime.
- Explore classical and modern philosophies and their impact on contemporary education.
- Explain the concept of education and its relationship with philosophy

- Analyze the globalization and the nature of different educational systems and values to reflect one's philosophy of education.
- Examine the global, social, and political influences that shaped the goals and structure of today's diverse educational systems.
- Understand the meaning and nature of educational sociology, sociology of education, and social organization
- Explain group dynamics, social interaction, social change, and the contribution of education to these aspects.

### Course Schedule and Topics:

This course will cover the following topics.

### Unit 1 – History and Purpose of Schooling in the European and International Context

### Unit 2 – Historical Global Foundations of Education

### Unit 3 – Philosophical Foundations of Education:

- Relationship Between Education and Philosophy
- Areas, of Philosophy and their Educational Implication
- Metaphysics, Epistemology and Axiology.
- Western Schools of Philosophy and their Educational Implication: Idealism, Naturalism, Realism and Pragmatism-their contribution to present day education.
- Modern Concept of philosophy: Logical analysis, Logical Empiricism, positive Realism and their Educational Implication.

### Unit 4 – Global Philosophical Foundations in Education

### Unit 5 – Sociological Foundations of Education

- Meaning, Nature and Scope of Education sociology
- Relationship between Sociology and Education
- Meaning and Nature of Educational Sociology and Sociology of education
- Education-as a social sub-system-specific characteristic
- Education and community with special reference the International Community

### Unit 6 – Social & Political Issues

### Unit 7 – Global Standings and Perspectives

### Unit 8 – The Role of Educators in a Changing World

- Introduction to Philosophy of Education Relationship Between Education and Philosophy Areas, of Philosophy and their Educational Implication- Metaphysics, Epistemology and Axiology. Western Schools of Philosophy and their Educational Implication: Idealism, Naturalism, Realism and Pragmatism-their contribution to present day education. Modern Concept of philosophy: Logical analysis, Logical Empiricism, positive Realism and their Educational Implication.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Examine the changing role of educational and instructional models (active learning, critical thinking), multiculturally, and/or overtime.	N	X			
L2	Explore classical and modern philosophies and their impact on contemporary education.	Y	X	X		

L3	Explain the concept of education and its relationship with philosophy	Y	X	X		
L4	Analyze the globalization and the nature of different educational systems and values to reflect one's philosophy of education.	N	X	X		
L5	Examine the global, social, and political influences that shaped the goals and structure of today's diverse educational systems.	N	X		X	X
L6	Understand the meaning and nature of educational sociology, sociology of education, and social organization	Y	X			
L7	Explain group dynamics, social interaction, social change, and the contribution of education to these aspects.	Y	X		X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE101 TEACHING FOR DIVERSE AND INCLUSIVE CLASSROOMS

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course provides students an opportunity to explore how diversity is manifested among organizational leaders, staff, and stakeholders in today's education environment in the context of policies, systems, histories, structures, and legislation. Participants will examine organizational and professional access and equity in the contexts of culture, ethnicity, race, sexual orientation, ability, and gender. Students will then apply the knowledge they gain from these explorations to the framing, analysis, and generation of solutions to contemporary educational problems. Through the assignments and resources, this course will address the tools for engagement by addressing the use of language and defining terms (and why they matter), sharing perspectives, looking at evidence and theories, employing a variety of strategies meant to increase understanding and participation, and then critiquing them all.

## LEARNING CONTENT AND OBJECTIVES:

- Define broadly the constructs of diversity, equity, access and retention.
- Explain the historical basis for and evolution to present time of and diversity policy in education.
- Analyze some of the equity effects of expanding access to education.
- Be able to distinguish opinions about causes of the achievement gap from research findings.
- Understand basic theories of identity development and the ways in which these theories are in flux.
- Understand how one's sense of self can vary with context.
- Describe what is typically meant by the labels "gifted," "special education" and "learning disability," and discuss strategies and challenges involved in categorizing students in this way.
- Describe challenges facing staff and students who are the subject of these differences and their organizational responses.
- Distinguish between sex, gender identity and expression, and sexual orientation as constructs.

- Understanding similarities among different religions and how employees might experience the workplace differently based on their spiritual and religious identity.
- Understanding civic belonging of immigrants.
- Understanding globalization of education, controversies regarding globalization and the relationships between globalization, education, technology, and migration.

By the end of this course students will be able to:

- Articulate key analytical constructs (such as race, ethnicity, gender, ability, sexual orientation, Socio-Economic Status) and how their individual and combined effects impact instruction, assessment, and leadership.
- Articulate the levels at which diversity and responses to diversity occur: individual, group, institutional, and structural.
- Analyze your own and others' experiences in various environments and how meaning-making can vary by the communities with which one affiliates and by personal and collective histories within the larger society.
- Analyze how perceptions of difference contribute to disparate educational opportunities and work environments.
- Analyze how you communicate values, intentionally and unintentionally, to communities through your choices of instructional practice, program and policy implementation, and resource distribution.
- Create a Statement of Problem paper that includes a synthesis of current practice and research about a topic related to diversity.
- Apply strategies and pedagogies for engaging groups in discussions that involve looking at the difference while tackling problems related to inequities in educational and professional outcomes and experiences.
- Evaluate institutional and structural policies and recommend strategies that could move institutions toward more equitable experiences and outcomes.
- Apply strategies to engage, verbally and in writing, your professional communities in considering access to and outcomes for your organization.

### **Course Schedule and Topics:**

This course will cover the following topics.

**Unit 1: Introduction: diversity, equity, access and retention**

**Unit 2: Achievement Gap and equity effects of expanding access to education**

**Unit 3: Basic theories of identity development**

**Unit 4: Race and Ethnicity I**

**Unit 5: Race and Ethnicity II**

**Unit 6: Ability**

**Unit 7: Language challenges and strategies**

**Unit 8: Gender, Sexual Orientation, identity and expression as constructs**

**Unit 9: Spirituality and Religious Identity**

**Unit 10: Understanding Immigration and Globalization of education**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module	A	B	C	D
L1	Articulate key analytical constructs (such as race, ethnicity, gender, ability, sexual orientation, Socio-Economic Status) and how their individual and combined effects impact instruction, assessment, and leadership.	N	X			
L2	Articulate the levels at which diversity and responses to diversity occur: individual, group, institutional, and structural.	N	X		X	X
L3	Analyze your own and others' experiences in various environments and how meaning-making can vary by the communities with which one affiliates and personal and collective histories within the larger society.	N		X	X	X
L4	Analyze how perceptions of difference contribute to disparate educational opportunities and work environments.	N			X	X
L5	Analyze how you communicate values, intentionally and unintentionally, to communities through your choices of instructional practice, program and policy implementation, and resource distribution.	N			X	X
L6	Create a Statement of Problem paper that includes a synthesis of current practice and research about a topic related to diversity.	Y			X	X
L7	Apply strategies and pedagogies for engaging groups in discussions that involve looking at the difference while tackling problems related to inequities in educational and professional outcomes and experiences.	Y			X	X
L8	Evaluate institutional and structural policies and recommend strategies that could move institutions toward more equitable experiences and outcomes.	Y			X	X
L9	Apply strategies to engage, verbally and in writing, your professional communities in considering access to and outcomes for your organization.	Y			X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA



## CORE COURSE

# CODE: CE200 CONTEMPORARY GLOBAL CHALLENGES IN EDUCATION POLICY AND LEADERSHIP PRACTICE

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course prepares future school leaders to effectively administer education programs and meet the challenges they will face in Primary and Secondary education. It provides the opportunity for students to have a clear understanding of how policy works in education, how to analyze and formulate educational policies, and who the key interest groups and players are in the making of policy. The course will equip students with the ability to generate ideas about how to evaluate policy implementation and provide useful feedback to policymakers. Using a systems approach to understanding leadership, the course combines coursework with real-world experiential learning.

## LEARNING CONTENT AND OBJECTIVES:

- Creating and Sustaining a Focus on Learning
- Creating and Sustaining a Culture of Continuous Improvement
- Creating and Sustaining Productive Relationships
- Creating and Sustaining Structures to Support an Effective School
- Managing Human Capital
- Self-Reflection and Professional Growth
- Professional Obligations
- Family and Community Engagement

## COURSE SCHEDULE AND TOPICS:

This course will cover the following topics.

### Unit 1: Sustaining a Focus on Learning:

- Planning for school improvement;
- Monitoring student performance;
- Providing opportunities for teacher reflection;
- Short and long-term planning to facilitate student achievement.

### Unit 2: Sustaining a Culture of Continuous Improvement:

- Setting expectations for teacher and student performance;
- Developing teachers through observation, feedback, and professional development;
- Gathering and analyzing data relative to student learning;
- Considering diversity of learners, e.g. ethnicity, abilities, and socioeconomic status.

### Unit 3: Sustaining Productive Relationships:

- Creating an environment that respects all stakeholders;
- Establishing opportunities for discourse among stakeholders for decision making;
- Creating communication processes for partnering with teachers and students.

### Unit 4: Sustaining Structures:

- Aligning curriculum, instruction, and standards;
- Allocating resources and developing structures to support school goals for student learning.

### Unit 5: Managing Human Capital:

- Collecting data related to teacher performance;
- Using teacher performance data to support effective instruction;
- Developing leadership capacity among teachers.

### Unit 6: Self-Reflection and Professional Growth:

- Using feedback from various sources to improve leadership practices;
- Seeking opportunities for continuous growth in leadership.

### Unit 7: Professional Obligations:

- Modeling and advocating fair and equitable treatment of all students and their families;
- Modeling integrity and honesty while respecting confidentiality.

### Unit 8: Family and Community Engagement:

- Involving parents, families, and community in policy implementation and program planning;
- Involving parents, families, and community in school improvement efforts.
- Connecting students and families to other social service and community agencies as needed.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Creating and Sustaining a Focus on Learning	N	X	X		
L2	Creating and Sustaining a Culture of Continuous Improvement	Y	X	X		
L3	Creating and Sustaining Productive Relationships	N	X	X		

L4	Creating and Sustaining Structures to Support an Effective School	Y				
L5	Managing Human Capital	N			X	
L6	Self-Reflection and Professional Growth	Y		X		X
L7	Professional Obligations	Y			X	X
L8	Family and Community Engagement	N				X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE201 LEARNING THEORY AND IMPLICATIONS FOR INSTRUCTION

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course is a study of human learning and cognitive organization and process. The content will provide an overview of the development of learning theory and cognitive models since the beginning of the scientific study of human learning and mental processes. Major theories concerning the learning process and their implications for the instructional process are investigated. The focus of the course will be the linkage between theory and educational practice. Attention will be given to the cognitive, affective, and sensory/psychomotor domains and implications for learning through different modalities. Contributions of neuroscience to understanding adolescent research are explored, and structural barriers to learning such as stereotype threat are discussed. Students will gain insights into the interplay of learner characteristics, prior experiences, the medium of instruction, and cultural influences and understand that learning is contextual, with no single theory universally applying to every student in every situation.

## LEARNING CONTENT AND OBJECTIVES:

By the end of the course, the candidate will:

- Become conversant with basic assumptions, concepts, and principles of each theory.
- Grasp possible implications of each theory for different instructional settings.
- Compare and contrast a range of theories in a variety of settings and age groups.
- Create, revise, and begin to use your theory of learning.
- Reflect on how learning theories impact every aspect of your life.
- Explain the interactions of students, teachers, and materials in classrooms and the implications of these interactions for classroom environments.
- Describe contemporary learners along a continuum of characteristics, i.e., socio-economic status,

ethnicity, gender, ability, among others, and discuss the implications of these characteristics for instruction in the contemporary classroom and in the future.

- Compare and contrast major theoretical positions on learning.
- Recognize and articulate how their philosophies and preferences for learning influence their educational practices.
- Examine motivation and its implications for learning and classroom practices environments.
- Utilize self-assessment for self-improvement and self-enhancement as educational professionals.

## COURSE SCHEDULE AND TOPICS

This course will cover the following topics.

**UNIT 1: Introduction; Learning and Teaching in the Classroom; Course Overview & Perspectives on Learning, theories of learning and their instructional applications in educational settings.**

**UNIT 2: Behavioral Analysis; Behaviorism and the Information Processing Model in Classroom Practices; Theoretical Overview, Modeling, Self-Efficacy, & Self-Regulation; Pavlovian Conditioning, Watson, Guthrie, Skinner, Thorndike, and Bandura.**

**UNIT 3: Cognitive Analysis; Complex Cognitive Processes, Concept Learning & Conceptual Change, viewpoints, and applications regarding the teaching/learning process including Bruner and Ausubel.**

**UNIT 4: Social Analysis; Observational, Social Learning; Identify humanistic viewpoints and applications regarding the teaching/learning process including Rogers; Recognize the significance of social learning theory and its implication for teaching.**

**UNIT 5: Constructivist; Piaget's, Bruner's, & Vygotsky's Theory.**

**UNIT 6: Who's Who in Human Learning.**

**UNIT 7: The Adolescent Brain and Neuroscience; Identify concepts and procedures that enable students to process and store information.**

**UNIT 8: Understanding Learner Characteristics; Understand human growth and development issues and concepts for childhood and early adolescence.**

**UNIT 9: Multiple Approaches to Curriculum Design.**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Become conversant with basic assumptions, concepts, and principles of each theory.	Y			X	X
L2	Grasp possible implications of each theory for different instructional settings	N			X	X
L3	Compare and contrast a range of theories in a variety of settings and age groups.	N	X	X		
L4	Create, revise, and begin to use your theory of learning.	N	X	X		

L5	Reflect on how learning theories impact every aspect of your life	N	X			
L6	Explain the interactions of students, teachers, and materials in classrooms and the implications of these interactions for classroom environments.	Y		X	X	
L7	Describe contemporary learners along a continuum of characteristics, i.e., socio-economic status, ethnicity, gender, ability, among others, and discuss the implications of these characteristics for instruction in the contemporary classroom and in the future.	Y		X		
L8	Compare and contrast major theoretical positions on learning.	Y	X			
L9	Recognize and articulate how their philosophies and preferences for learning influence their educational practices.	Y	X			X
L10	Examine motivation and its implications for learning and classroom practices environments.	N			X	X
L11	Utilize self-assessment for self-improvement and self-enhancement as educational professionals.	N			X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE300 GAMES AND VIRTUAL SIMULATIONS FOR LEARNING

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Today computer gaming is one of the fastest-growing areas of the information technologies industry as gamification has found a niche in the education, healthcare, health education, and military genres. The student will learn what cognitive processes happen in game playing, how gaming approaches can be applied to formal learning environments by understanding why people play games, why they like some games to others, how the game players interact with each other in a gaming environment, and gender issues. This course will explore the ever-evolving media and tools that will support human use, augment human learning and enhance communication at the individual and the social levels by having a more psychological and social focus rather than a technical one. Gamification has found a niche in the education, healthcare, health education, and military genres.

## LEARNING CONTENT AND OBJECTIVES

By the end of the course, the candidate will:

- Develop a theoretical understanding of cognitive, social and cultural aspects of computer games and simulations.
- Provide an understanding of the social, psychological, cultural and ethical issues associated with game design and use.
- Understand the origins and philosophy of games and video games in human history.
- Explain potentials of games on human psychology and learning.
- Inquire good and bad effects of video games and simulations on players and learners.
- Discover the areas that computer games can be used.

- Understand basic design elements of video games and suggest some design issues by using theoretical foundations.
- Evaluate the computer games with different perspectives.
- Understand the trends of video games and simulation research.
- Conduct a game research by considering the literature and analyze the data 1.
- Offer a set of first-hand experiences which augment conceptual understanding of course content.

## **COURSE SCHEDULE AND TOPICS**

This course will cover the following topics.

**UNIT 1: History of Computer Games: Theories and Concepts in Serious Game Design and Development**

**UNIT 2: Philosophy of the Games**

**UNIT 3: Philosophy of the Computer Games**

**UNIT 4: Psychology in the Games; Behavior and Motivation**

**UNIT 5: Player aggression, violence (emotional connections)**

**UNIT 6. Diversity in Game Culture**

**UNIT 7. Social Interaction and Online communities in Games and Virtual Environments**

**UNIT 8. Learning in Games and virtual environments (Commercial games, simulations, serious games and virtual environments)**

**UNIT 9. Design Issues of the Games**

**UNIT 10. Design Methods of the Games**

**UNIT 11. Assessment and Evaluation of the Games (Human Game Interaction, Usability, playability, heuristic evaluation of play, computer game criticism, game play analysis)**

**UNIT 12. Games and ethical issues.**

**UNIT 13. Trends & issues and future of educational game and simulations research (trends in conferences, journal papers, meta analyses)**

**Readings:**

### **Unit 1**

- Yilmaz, E., Cagiltay, K. (2005). History Of Digital Games in Turkey. Authors & Digital Games Research association DIGRA.
- The Video Game Revolution (video). <http://video.google.com/videoplay?docid=-4729348985218842392#>

### **Unit 2**

- Huizinga, J. (1955). Homo Ludens A Study of the Play-Element in Culture. Beacon Press. Boston, USA
- And, M. (2003). Oyun ve Bg. İstanbul: Yapı Kredi Yayınları.
- Caillois, R. (1958). Les jeux et les hommes (Man, play, and games). Librairie Gallimard, Paris.

### **Unit 3**

- Jarvinen, A. (2007): Games without Frontiers, Theories and Methods for Game Studies and Design. PhD Thesis, University of Tampere, Finland.
- Djaouti, D., Alvarez, J., Jessel, J.P., Methel, G. & Molinier, P. (2008). A Gameplay Definition through Videogame Classification, International Journal of Computer Games Technology, Vol. 2008, Article



ID 470350, 7 pages, 2008. doi:10.1155/2008/470350

- Elverdam, C. & Aarseth, E. (2007). Game Classification and Game Design: Construction Through Critical Analysis, *Games and Culture*, 2(1), 3-22
- Juul, J. (2003). The Game, the Player, the World: Looking for a Heart of Gameness, Keynote presented at the Level Up conference in Utrecht, November 4th-6th 2003, received on September 2010, from <http://www.jesperjuul.net/text/gameplayerworld/>

#### Unit 4

- Chen, J. (2007). Flow in Games (and Everything Else). *Communications of the ACM*. 50(4), 31- 34.
- Csikszentmihalyi, M (1990). *Flow : The Psychology of Optimal Experience*. Harper Perennial, London.
- Falstein, N. (2005). Understanding fun-the theory of natural funativity. In Rabin, S. (Ed), *Introduction to Game Development*
- Malone & Lepper (1987). Making Learning Fun: A Taxonomy of Intrinsic Motivations for Learning. In Snow, R. & Farr, M. J. (Ed), *Aptitude, Learning, and Instruction Volume 3: Conative and Affective Process Analyses*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Snow, R., & Farr, M. Cognitive-conative-affective processes in aptitude, learning, and instruction: An introduction. In R. Snow & M. Farr (Eds.), *Conative and affective process analysis* (Vol. 3, 1987, pp. 1-10). Hillsdale, NJ: Erlbaum Associates.

#### Unit 5

- Mandatory readings of Carnagey, N. L. & Anderson, C. A. (2004). Violent video game exposure and aggression. *Minerva Psychiatr.*(45), p. 1-18.
- Goldstein, J. (2000). Effects of electronic games on children. *Electronic Games*. p.1-16
- Griffiths, M. (1999). Violent video games and aggression: A review of literature. *Aggression and Violent Behavior*, Vol. 4, No. 2, pp 203-212.
- Grodal, T. (2000). Video Games and the Pleasure of Control. in: D. Zillmann & Peter Vorderer, (Eds.). *Media entertainment: The psychology of its appeal* (pp 197-213). Mahwah, NJ: Lawrence Erlbaum Associates.
- Weber, R., Ritterfield, U. & Kostgina, A. (2006) Aggression and Violence as Effects of Playing Violent Video Games? In P. Vorderer & J. Bryant (Eds.), *Playing Video Games: motives, responses and consequences* (pp. 347-361). Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.

#### Unit 6

- Williams, D., Martins, N., Consalvo, M., Ivory, J., 2009. The virtual census: Representations of gender, race and age in video games. *New Media & Society* 11 (5), 815-834
- Weisman, S. (1983). Computer games for the frail elderly, *Gerontologist*, vol. 23 (4), pp. 361– 363, 1983
- Noble, R. , Ruiz, K., Destefano, M., and Mintz, J. (2003).“Conditions of Engagement in Game Simulation: Contexts of Gender, Culture and Age, Level Up: Digital Games Research Conference. Eds. Marinka C. & Joost R.DIGRA: Utrecht University, 2003.
- Subrahmanyam K. & Greenfield, P.M. 1998. Computer games for girls: What makes them play? In Cassell, J. & Jenkins, (Ed.), *From Barbie to Mortal Combat: Gender and Computer Games*. Cambridge, MA: MIT Press

#### Unit 7

- Axelsson, A.-S., & Regan, T. (2002). How Belonging to an Online Group Affects Social Behavior - a Case Study of Asheron's Call. Redmond, Washington: Microsoft Research
- Cole, H. & Griffiths, M. (2007) Social Interactions in Massively Multiplayer Online Role- Playing Gamers, *Cyberpsychology & Behavior*, Vol. 10, No. 4, pp. 575 – 583.
- Manninen T. (2000) Interaction in Networked Virtual Environments as Communicative Action - Social Theory and Multi-player Games. In proceedings of CRIWG2000 Workshop, October 18-20, Madeira, Portugal, IEEE Computer Society Press
- Tamborini, R., & Skalski, P. (2006). The role of presence in the experience of electronic games. In P. Vorderer & J. Bryant (Eds.), *Playing video games: Motives, responses, and consequences* (pp.

### Unit 8

- Becker, K. (2006). Pedagogy in Commercial Video Games. In D. Gibson, C. Aldrich & M. Prensky (Eds.), *Games and Simulations in Online Learning: Research and Development Frameworks*: dea Group Inc
- Gee, J. P. (2005). Good video games and good learning. *Phi Kappa Phi Forum*. 2005;85(2), 33–7.
- Lieberman, D. A. (2006). What can we learn from playing interactive games? In P. Vorderer & J. Bryant (Eds.), *Playing video games—Motives, responses, and consequences* (pp. 379–397). Mahwah, NJ: Lawrence Erlbaum Associates, Inc
- Ritterfeld, U. & Weber, R. (2006). Video Games for Entertainment and Education. In P. Vorderer & J. Bryant (Eds.), *Playing Video Games-Motives, Responses, and Consequences* (pp. 399-413). Mahwah, NJ: Lawrence Erlbaum, Inc.

### Unit 9

- Barry, I. (2005). Game Design. In Rabin, S. (Eds). *Introduction to Game Development* (pp. 99-160). Hingham, MA: Charles Rive Media, Inc
- Adams, E. (2010). *Fundamentals of Game Design* (2nd Ed). New Riders: Berkeley, CA. Chapter 12 - General Principles of Level Design
- Gunder, A. (2003). As if by magic: On Harry Potter as a novel and a computer game. In M. Copier & J. Raessens (Eds): *Level up: Digital games research conference*. Utrecht: Utrecht University.
- Dondlinger, M. J. (2007). Educational video game design: A review of the literature [Electronic Version]. *Journal of Applied Educational Technology*, 4, 21-31

### Unit 10

- Pagulayan, R. J., Keeker, K., Wixon, D., Romero, R. L., & Fuller, T. (2003). User-centered design in games. In J. A. Jacko & A. Sears (Eds.), *The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies and Emerging Applications* (pp. 883-906). Mahwah, NJ: Lawrence Erlbaum Associates
- Kaplan Akilli, G. & Cagiltay, K. (2006). An Instructional Design/Development Model for the Creation of Game-like Learning Environments: The FIDGE Model, In M. Pivec (Ed.), *Affective and emotional aspects of human computer interaction: Game-based and innovative learning approaches* (pp. 93-112). Amsterdam, Netherlands: IOS Press.
- Scaife, M. and Rogers, Y. (1999). Kids as informants: Telling us what we didn't know or confirming what we knew already, in A. Druin (Ed.), *The design of children's technology* (pp.29-50).Morgan Kaufmann, San Francisco, CA

### Unit 11

- Federoff, M.A. (2002). *Heuristics and Usability Guidelines for the Creation and Evaluation of Fun in Video Games*. MS Thesis, Department of Telecommunications, Indiana University, Bloomington, Indiana, USA, 2002
- Laitinen, S. (2005, Jun 6). Better Games Through Usability Evaluation and Testing. retrieved from [http://www.gamasutra.com/features/20050623/laitinen\\_02.shtml](http://www.gamasutra.com/features/20050623/laitinen_02.shtml)
- Cornett S. (2004). The Usability of Massively Multiplayer Online Roleplaying games: Designing for New Users. *Proceedings of the SIGCHI conference on Human factors in computing systems*, 6(1), pp 703-710
- Jørgensen, A.H. (2004). Marrying HCI/Usability and Computer Games: A Preliminary Look. In *Proceedings of NordiCHI*. pp. 393-396.

### Unit 12

- Sicart, M. (2009). *the Ethics of Computer Games*, MIT Press:Cambridge, MA (Chapter 2)
- Sicart, M. (2009). *the Ethics of Computer Games*, MIT Press:Cambridge, MA (Chapter 4)
- Zagal, J. P. (2009). Ethically Notable Video Games: Moral Dilemmas and Gameplay, *Proceedings of Digital Games Research Association (DiGRA)*, retrieved on April, 20 2010 from <http://www.digra.org/dl/db/09287.13336.pdf>

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Develop a theoretical understanding of cognitive, social and cultural aspects of computer games and simulations.	N	X	X		
L2	Provide an understanding of the social, psychological, cultural and ethical issues associated with game design and use.	N	X	X		
L3	Understand the origins and philosophy of games and video games in human history.	N	X	X		
L4	Explain potentials of games on human psychology and learning.	N			X	X
L5	Inquire good and bad effects of video games and simulations on players and learners.	N			X	X
L6	Discover the areas that computer games can be used.	N			X	X
L7	Understand basic design elements of video games and suggest some design issues by using theoretical foundations.		X		X	X
L8	Evaluate the computer games with different perspectives.	Y		X	X	
L9	Understand the trends of video games and simulation research.	N	X	X		
L10	Conduct a game research by considering the literature and analyzing the data 1.	Y	X	X		
L11	Offer a set of first-hand experiences which augment conceptual understanding of course content.	Y	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE301 CURRICULUM DESIGN AND INSTRUCTIONAL DECISION MAKING

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

In this course, students will learn to develop a curriculum and to evaluate it knowledgeably by engaging in curriculum design. The course will consider current issues in curriculum design and curriculum leadership. The major design frameworks for the development of curricula will be explored, including how decisions should be made about curriculums. Students will conduct mapping, at the primary and secondary levels of education for International school systems.

## LEARNING CONTENT AND OBJECTIVES

By the end of the course, the candidate will:

- To develop a significant piece of curriculum for one grade and subject.
- To understand and use curriculum design and evaluation frameworks.
- To critically examine issues in curriculum development and evaluation, including the roles of various stakeholders in decision-making about curriculum, the pros and cons of a national curriculum, and the characteristics of quality learning experiences.
- To understand and how to structure curriculum and create learning experiences that are broadly impactful for students.

## COURSE SCHEDULE AND TOPICS

This course will cover the following topics.

**UNIT 1: What is curriculum: Introductions;**

- Syllabus and course requirements;
- What is curriculum?
- Curriculum and the goals of education

**UNIT 2: Considering the goals of Primary and Secondary education in the development of curriculum;**

- Graduation goals and learning progressions;
- Subjects and strands for Primary and Secondary education

**UNIT 3: Backward design and the politics of curriculum decision-making;**

- Intro to standards and using standards to develop goals;

**UNIT 4: Standards, standardized tests, and curriculum;**

- Identifying priority standards and supporting standards

**UNIT 5: Organizing curricula around thinking and conceptual understanding;**

- The thinking curriculum;
- Using Bloom's Taxonomy to identify levels of thinking skills

**UNIT 6: Essential questions and unit themes;**

- standards infrastructure, including anchor standards,
- priority goals,
- supporting standards

**UNIT 7: Assessment and acceptable evidence;**

- Determining acceptable evidence of attainment;
- Summative and formative assessment;
- Intro to rubrics and scoring guides;;
- Outcome, evidence, criteria, task, rubric, use of results

**UNIT 8: Planning learning experiences;**

- the role of experience in education

**UNIT 9: Designing experiences for all learners, and planning lessons**

**UNIT 10: Curriculum Evaluation**

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	To develop a significant piece of curriculum for one grade and subject.	Y			X	X
L2	To understand and use curriculum design and evaluation frameworks.	Y	X		X	X
L3	To critically examine issues in curriculum development and evaluation, including the roles of various stakeholders in decision-making about curriculum, the pros and cons of a national curriculum, and the characteristics of quality learning experience	N		X		

L4	To understand and how to structure curriculum and create learning experiences that are broadly impactful for students.	Y	X		X	X
----	--	---	---	--	---	---

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

## CODE: CE102 ASSESSMENT AND EVALUATION

### COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

The concepts of measurement and evaluation as applied to behavioral sciences. How to measure the outcome of the teaching-learning process in Education. Cognitive, affective and psychomotor measurements. Teacher-made and standardized tests for Education. Interpretation and treatment of the outcomes of the measurements. Formative and summative evaluation. Alternative evaluation strategies. Using measuring tools to find desired properties (reliability, validity, usefulness). The measurement approaches are based on traditional tools (written exams, short response examinations, multiple-choice tests, oral poll and homework). Measurement on multi-dimensional tools (observations, interviews, research papers, research projects, self-assessment, attitudes scales). Assessment of learning outcomes.

### LEARNING CONTENT AND OBJECTIVES:

By the end of the course, the candidate will:

- Mention the purposes of measurement and evaluation.
- Describe the historical development of testing and evaluation.
- Enumerate the importance and functions of tests in education.
- Explain the concept of educational objectives
- Discuss the taxonomy of educational objectives.
- Describe the domains of educational objectives.
- List the uses of classroom tests.
- List the types of tests used in the classroom.
- Enumerate the advantages and disadvantages of subjective and objective testing. 1
- Explain test administration and scoring
- Estimate and interpret the reliability of a test.
- Explain the validity of a test as an instrument

- Describe the problems of grading tests.
- Explain quality control in the grading system.
- Develop a variety of item formats including multiple-choice and constructed response items
- Develop answer keys and scoring rubrics for different item formats

Upon successful completion of the course, students should be able to:

- Know how to develop relevant educational assessment
- Describe fundamental aspects on the quality of assessment procedures
- Evaluate tests and items using statistical and qualitative methods
- Incorporate meaning into test score scales using both norm-referenced and criterion-referenced procedures
- Use standard setting techniques to set “passing scores” and other performance standards on tests
- Develop appropriate documentation to properly communicate the quality of an assessment
- Understand the utility of educational assessments within the broader context of educational policy and decision making
- Use the results of standardized tests to help make decisions about students and educational systems
- Identify flaws in educational assessments
- Develop a sense for the ethical issues in educational measurement and evaluation
- Become successful decision makers, lifelong learners and adaptive
- Be culturally sensitive and empathetic
- Communicate effectively through written and electronic means
- Locate relevant information from a variety of sources and assimilate, interpret and apply knowledge

## **COURSE SCHEDULE AND TOPICS**

This course will cover the following topics.

**Week 1: Overview Of Testing, Measurement, Assessment And Evaluation**

**Week 2: Meaning Of Testing, Types Of Tests, Uses Of Tests, Function And Purpose Of Testing, Characteristics Of Effective Tests, Steps Involved In A Test Construction**

**Week 3: The Concept Of Measurement, Measurement Scales (Nominal, Ordinal, Ratio And Interval Scales)**

**Week 4: Types Of Items, Table Of Specifications Matching Objectives With Item Types**

**Week 5: Bloom’s Revised Taxonomy Of Objectives Educational Objectives, Basic Concepts In Assessment, Types Of Assessment, Teacher Made, Standardized, Authentic Assessments**

**Week 6: 8 Item Analysis Methods Item Discrimination, Item Difficulty, Distracter Analysis**

**Week 7: Types Of Validity Content, Construct, Criterion Related**

**Week 8: Representation Of Scores (Normal Distribution, Measures Of Central Tendency And Variation) Mean, Median, Mode, Range, Standard Deviation, Range**

**Week 9: Understanding Test Results Test Evaluation Grading System**

**Week 10: Computer Based Testing (Cbt), Historical Details Of Adaptive Testing**



<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Mention the purposes of measurement and evaluation.	N		X		
L2	Describe the historical development of testing and evaluation.	N	X	X		
L3	Enumerate the importance and functions of tests in education.	N	X	X		
L4	Explain the concept of educational objectives	N	X	X		
L5	Discuss the taxonomy of educational objectives.	N	X	X		
L6	Describe the domains of educational objectives.	N	X	X		
L7	List the uses of classroom tests.	N	X	X	X	X
L8	List the types of tests used in the classroom.	N	X	X	X	X
L9	Enumerate the advantages and disadvantages of subjective and objective testing. 1	N	X	X	X	X
L10	Explain test administration and scoring	N		X		
L11	Estimate and interpret the reliability of a test.	N		X		
L12	Explain the validity of a test as an instrument	N		X		
L13	Describe the problems of grading tests.	N		X		
L14	Explain quality control in the grading system.	N		X		
L15	Develop a variety of item formats including multiple-choice and constructed response items	Y			X	X
L16	Develop answer keys and scoring rubrics for different item formats	Y			X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE103 CREATING POSITIVE CLASSROOM ENVIRONMENTS

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course will draw on a variety of theoretical and practical perspectives, principles and research to provide students with a depth and breadth of knowledge that will enable professional decision-making and practice in establishing classroom management through positive behavioral support and ensuring student engagement in learning in Primary and Secondary classrooms through a variety of tools, including the use of digital literacies. The impact of the physical environment, transitions, procedures, norms and expectations on managing behavior will also be explored.

## LEARNING CONTENT AND OBJECTIVES

By the end of the course, the candidate will:

- Demonstrate an ability to engage students effectively in the learning process.
- Develop and maintain a positive learning environment in the classroom
- Plan, manage and deliver productive lessons.
- Use both high-tech and low-tech evidence-based strategies and tools to address the diverse learning needs of students and maintain learning engagement
- Manage difficult behaviors and create a safe and productive learning environment

## COURSE SCHEDULE AND TOPICS

This course will cover the following topics.

**UNIT 1: Elements of Classroom Management & The Positive Classroom;**

- A discussion of broad educational theories and philosophies.
- Why they are important to practitioners.
- How to build an educational and classroom management philosophy grounded in theory and evidence.

**UNIT 2: Creating & Implementing Rules & Procedures;**

- Creating and sustaining an effective school-wide behavior system.
- Emphasis of a behavior system on preventing problems and providing a comprehensive, consistent structure.
- How these systems differ across primary and secondary schools.
- An example of one model and how it can be used to form a philosophy as well as an evidence-based system.
- Positive Learning Framework.

**UNIT 3: Diversity Issues in the Classroom;**

- Culturally responsive behavior management.
- How to include students who identify as ethnically diverse, migrant, refugee, indigenous, LGBTI, as well as those involved in out of home care.

**UNIT 4: Communication, Collaboration, & Rapport;**

- Quality of teacher-student relationships and school home communication.
- Underpinning values –ethics of care (care for learners/care about learning).
- Establishing a positive classroom climate/ethos.
- Role of teacher communication/discourse in expressing/constituting cooperative student relations.
- Building positive relationships, understanding childhood and adolescence, knowing your students.

**UNIT 5: Curriculum, assessment, and pedagogy.**

- Best practices (Bloom's Taxonomy),
- Understanding that meeting key student academic needs significantly increases student motivation, learning, and on-task behavior.
- Developing methods for ensuring these needs are met within your classroom.
- Bullying.
- Professional Reflexivity.

**UNIT 6: Trauma informed practice.**

- The neurosequential model. Social and pedagogical implications of ICT on personalized and group learning.
- Ethical use of and access to reputable material, and curation.
- Staying safe online, cyberbullying and plagiarism.

**UNIT 7: Supporting students with intellectual disability and emotional and behavioral disabilities in the inclusive Primary and Secondary classroom settings.****UNIT 8: Discipline Challenges;**

- Responding to students in regard to the escalation cycle.
- Tier 3 behavioral interventions.

**UNIT 9: Understanding the place and significance of classroom organization in the development of best practice classroom management plans.**

- Analyzing classroom organization strategies to identify their theoretical underpinnings.
- Recognizing and appreciating a diversity of classroom organization strategies.

## UNIT 10: Professional Reflexivity Components of Classroom Management Plans.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Demonstrate an ability to engage students effectively in the learning process.	N		X	X	
L2	Develop and maintain a positive learning environment in the classroom.	N			X	
L3	Plan, manage and deliver productive lessons.	Y			X	X
L4	Use both high-tech and low-tech evidence-based strategies and tools to address the diverse learning needs of students and maintain learning engagement.	Y			X	X
L5	Manage difficult behaviors and create a safe and productive learning environment.	N			X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

### Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE202 INSTRUCTIONAL TECHNIQUES FOR THE PRIMARY AND MIDDLE SCHOOL CLASSROOM

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	CE301 Curriculum Design and Instructional Decision Making
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

In this course, the primary focus is on development of a specific set of planning skills Primary and Secondary school teachers need to appropriately design, implement, manage, and assess student learning. Students in this course will study cognitive, physical, and intellectual development of the school child; factors influencing instructional decisions; motivational techniques; content selection and organization; the breakdown of academic content into facts, concepts, generalizations, principles, and rules; performance objectives and their importance in the instructional planning process; long- and short-term planning processes; roles of content area and professional teaching standards in professional teacher behaviors; accommodations for diverse student backgrounds, situations, and needs; basic classroom management and discipline techniques; use of media and technology in the instructional process; elements of effective instructional practice; measurement and evaluation of students and programs; legal issues affecting the teacher's decision-making process; and the role of reflectivity in continuous instructional improvement.

## LEARNING CONTENT AND OBJECTIVES

By the end of the course, the candidate will:

- Understand and appropriately apply teaching, learning, and adolescent development theories to lesson, unit, and course design and implementation;
- Understand and appropriately apply assessment/measurement theories in the creation, interpretation, selection, and effective use of assessment tools for the school classroom (including standardized testing instruments);
- Understand and appropriately apply and evaluate effective classroom management strategies for the primary and secondary school level;

- Understand, apply, and evaluate delivery skills and delivery systems appropriate in implementing instruction and assessment at the primary and secondary school level;
- Select, understand, and effectively apply and assess a variety of basic teaching models and strategies that are appropriate for the primary and secondary level classroom;
- Demonstrate through performance and effectively explain in their own words the importance of cognitive and student development theories in the application of teaching, learning, and assessment processes;
- Understand, analyze, evaluate, and apply national and state content area learning standards for teaching, learning, planning, and assessment purposes;
- Understand and apply task analysis procedures in lesson, unit, and course curriculum design; and
- Effectively employ reflective teacher practices in the design, delivery, assessment, and re-design of teaching, learning, curriculum design, evaluation, and assessment strategies.

## **COURSE SCHEDULE AND TOPICS**

This course will cover the following topics.

### **UNIT 1: Overview of the philosophical foundations of teaching and learning;**

- Evaluate the Vygotskian foundations of optimal questioning and learning strategies;
- Compare contemporary models of teaching with constructivist ideals.

### **UNIT 2: Inquiry based learning;**

- Apply cognitive principles to lesson planning;
- Describe the value of making learning experience authentic.

### **UNIT 3: Learning together;**

- the social family of models,
- roles for all learners in cooperative settings.
- Assess the value of social learning versus individual learning.
- Explain potential role modifications to accommodate diversity and special needs learners in cooperative learning activities.

### **UNIT 4: Critical analysis of the applications of behaviorist instructional techniques.**

- Evaluate the utility of directed instruction in the context of constructivist ideals.
- Critically assess the impact of high stakes testing on higher order learning.

### **UNIT 5: Guided instruction strategy, integration and holistic perspectives on learning;**

- Describe strategies for integrating learning models for optimal learning.
- Evaluate problems in cognition that require hard scaffolding.

### **UNIT 6: Planning for diversity special needs students;**

- Equality as a guiding paradigm.
- Analyze issues that may hinder or promote diversity in learning organizations.
- Describe methods for including the theme of equity as a cornerstone for planning effective instruction.

### **UNIT 7: Model programs, constructivism and real world classrooms;**

- Evaluate constructivist examples with personal concepts of contemporary practice.
- Critique institutional paradigms that discourage constructivism in classroom practice.

### **UNIT 8: Thematic Planning. – Final Project**

- Application and evaluation of all course goals and objectives in a final project activity that assess the candidates understanding through the development of a thematic curricular unit, developed in a group planning context.

## Final Project:

The major project for this course is the design of a series of lesson plans utilizing a combination of different teaching strategies.

The project must meet the following criteria:

- There must be a minimum of five lesson plans in the series.
- Each lesson plan should be designed to cover a 1 ½ hour block.
- All lesson plans must be related to a central topic or theme, which is to be clearly identified at the beginning of your plan. The topic or theme is a matter for your group to decide upon.
- Objectives, methods, materials, information about your target audience and assessment strategy are to be included for each lesson plan. A unified assessment strategy for the entire series is perfectly acceptable. You are also encouraged to explore alternative assessment vehicles though it is not required.
- A minimum of three teaching strategies are to be used in the lesson plan series.
- Each lesson plan must include a discussion of the strategy used and why you believe it is the most appropriate for the topic or theme being addressed.
- In your lesson plan must include web-based material
- The Backward Design Model must be used to format all lesson plans.
- Pedagogical applications of technology must be used at least twice.
- The plan must include provisions for diversity and special needs learners.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module	A	B	C	D
L1	Understand and appropriately apply teaching, learning, and adolescent development theories to lesson, unit, and course design and implementation;	N	X	X	X	
L2	Understand and appropriately apply assessment/measurement theories in the creation, interpretation, selection, and effective use of assessment tools for the school classroom (including standardized testing instruments)	N	X	X	X	
L3	Understand and appropriately apply and evaluate effective classroom management strategies for the primary and secondary school level;	N	X	X	X	
L4	Understand, apply, and evaluate delivery skills and delivery systems appropriate to implementing instruction and assessment at the primary and secondary school level	Y	X	X	X	
L5	Select, understand, and effectively apply and assess a variety of basic teaching models and strategies that are appropriate for the primary and secondary level classroom;	Y	X	X	X	
L6	Demonstrate through performance and effectively explain in their own words the importance of cognitive and student development theories in the application of teaching, learning, and assessment processes;	N			X	
L7	Understand, analyze, evaluate, and apply national and state content area learning standards for teaching, learning, planning, and assessment purposes;	Y	X	X	X	

L8	Understand and apply task analysis procedures in lesson, unit, and course curriculum design; and	Y	X		X	X
L9	Effectively employ reflective teacher practices in the design, delivery, assessment and re-design of teaching, learning, curriculum design, evaluation, and assessment strategies	Y			X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA



## CORE COURSE

# CODE: CE203 SPECIAL EDUCATIONAL NEEDS: INCLUSIVE APPROACHES

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course presents an overview of current special education issues as they relate to inclusive practices. Candidates will gain an understanding of the challenges faced by exceptional students and analyze the responsibilities of educational professionals in addressing these challenges. The philosophy of inclusion will be emphasized through identifying collaborative strategies, tools and approaches that will assist in making the general education classroom more inclusive for all students. Students will therefore learn how to identify and provide appropriate learning opportunities for children with diverse needs and become sensitive to social, emotional, behavioral, cognitive, and cultural differences; the need to work with families, and the importance of early intervention to prevent or ameliorate disability.

## LEARNING CONTENT AND OBJECTIVES

By the end of the course, the candidate will:

- Demonstrate an understanding of laws, regulation, and policies that pertain to the development of educational programs for students with special needs, including major categories of disabilities.
- Discuss the concept of least restrictive alternatives and examine the research and rationale(s) for inclusive education.
- Demonstrate an understanding of the role and responsibilities of the general educator in the design of Individual Education Programs (IEP), including identification, referral, IEP development, and implementation.

- Discuss principles of educational assessment for special populations, including testing bias, sensitivity to cultural and language factors, and the importance of adaptations for English Language Learners (ELL).
- Demonstrate an understanding of the characteristics and effective applications of collaboration, including working with families and paraprofessionals in the design and implementation of assessment and instructional programs for students with disabilities.
- Analyze classroom and student needs in organizing and planning instruction for special populations, including the design of accommodations and the use of assistive technologies.
- Demonstrate an understanding of appropriate instructional materials and methods for students with low incidence disabilities and the accommodations that can be made for them in general education classrooms.
- Demonstrate an understanding of appropriate instructional materials and methods for students with high incidence disabilities and the accommodations that can be made for them in general education classrooms.
- Describe effective curricular and instructional approaches and accommodations that ensure access to the content areas, including literacy, mathematics, science, and social studies.
- Demonstrate an understanding of strategies for increasing students' positive behaviors and promoting the social integration of students with special needs in general education classrooms.

## **COURSE SCHEDULE AND TOPICS**

This course will cover the following topics.

### **UNIT 1: Foundations of Special Education:**

- Inclusion as a philosophy for educating exceptional students in general education settings;
- Legal & Ethical Premise for teaching all students

### **UNIT 2: Special Education Referral & Assessment**

- Special education identification process

### **UNIT 3: Collaboration Models; Creating Collaborative Relationships**

- Comprehensive planning team through effective collaboration and communication strategies

### **UNIT 4: The Classroom Environment:**

- Strategies for Classroom Organization and Management

### **UNIT 5: Low Incidence Disabilities**

- Working with advanced students
- Learning disabilities
- ADHD
- emotional & behavior challenges

### **UNIT 6: High Incidence Disabilities**

- Autism & ASD Spectrum Disorders,
- Intellectual Disabilities - FASD/FASE

### **UNIT 7: Other Students with Special Needs**

- Communication Disorders
- Hearing loss
- Vision & Blindness
- Physical Disabilities

### **UNIT 8: Instructional Adaptations; Differentiating Instruction**

- Strategies to enhance learning, motivation, and social development

## UNIT 9: Evaluating Student Learning

- Strategies for evaluating student progress in general, modifying the evaluation methods used to assess student progress, developing differentiated assessment practices, and using alternative grading practices.

## UNIT 10 Strategies for Independent Living

- Working with Families of Students with Exceptionalities

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Demonstrate an understanding of laws, regulation, and policies that pertain to the development of educational programs for students with special needs, including major categories of disabilities.	N		X		
L2	Discuss the concept of least restrictive alternatives and examine research and rationale(s) for inclusive education.	N		X		
L3	Demonstrate an understanding of the role and responsibilities of general educator in the design of Individual Education Programs (IEP), including identification, referral, IEP development, and implementation.	N	X	X		
L4	Discuss principles of educational assessment for special populations, including testing bias, sensitivity to cultural and language factors, and the importance of adaptations for English Language Learners (ELL).	N	X	X		
L5	Demonstrate an understanding of the characteristics and effective applications of collaboration, including working with families and paraprofessionals in the design and implementation of assessment and instructional programs for students with disabilities.	N	X	X		
L4	Analyze classroom and student needs in organizing and planning instruction for special populations, including the design of accommodations and the use of assistive technologies.	Y		X	X	
L5	Demonstrate an understanding of appropriate instructional materials and methods for students with low incidence disabilities and the accommodations that can be made for them in general education classrooms.	Y	X	X	X	
L6	Demonstrate an understanding of appropriate instructional materials and methods for students with high incidence disabilities and the accommodations that can be made for them in general education classrooms.	Y	X	X	X	
L7	Describe effective curricular and instructional approaches and accommodations that ensure access to the content areas, including literacy, mathematics, science, and social studies.	Y		X	X	X
L8	Demonstrate an understanding of strategies for increasing student positive behaviors and promoting the social integration of students with special needs in general education classrooms.	Y	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## **Assessments**

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

**BIBLIOGRAPHY: TBA**

## CORE COURSE

## CODE: CE302 INTEGRATION OF LEARNING TECHNOLOGY

### COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	CE201 Learning Theory and Implications for Instruction
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course is designed to provide students with knowledge, skills and experience in implementing educational technology into a pedagogically sound learning environment. This course also emphasizes the critical evaluation and pedagogical design aspects of integrating technology in instruction. Students will develop and use digital and nondigital teaching- learning resources using technology tools appropriate in various subject areas in the Primary and Secondary level. Further, the course will provide opportunities for students to use technology tools to develop project-based collaborative activities and share resources among communities of practice.

### LEARNING CONTENT AND OBJECTIVES

By the end of the course, the candidate will:

- Use technology to facilitate and inspire student learning
- Achieving and maintaining expertise in the use of educational technology
- Develop project/problem-based/inquiry-based collaborative plans and activities using technology tools
- Use open-ended tools to support the development of the project-based collaborative activities in subject specific application.
- Produce learning resources using technology tools in various subject areas.
- Evaluate the relevance and appropriateness of ICT tools and resources based on the learning context.
- Use technology tools to collaborate and share resources among communities of practice.
- Model digital-age work and learning
- Promote and model digital citizenship and responsibility

- Recognize the importance of continued professional growth and leadership in

## COURSE SCHEDULE AND TOPICS

This course will cover the following topics.

### UNIT 1: Overview of course;

- History of Educational Technology, Standards
- Connecting Curriculum and Technology;

### UNIT 2: Theory and Practice:

- Foundations for Effective Technology Integration
- Promoting Digital Citizenship,
- Copyright and Plagiarism;
- Planning & Implementation for Technology Integration

### UNIT 3: Technology Integration Planning (TIP) Model;

- Learning Theory Instructional Software;
- Learning Theories (Background to Question Model)

### UNIT 4: Educational Games continued Instructional Software for 21st Century Teaching

### UNIT 5: Technology Tools for 21st Century

- Emerging Technologies;
- Technology Integration for Diverse Learners

### UNIT 6: Teaching: The Basic Suite

- Characteristics of ICT resources and their relevance and appropriateness

### UNIT 7: Introduction to Distance Education: Online & Blended Environments

### UNIT 8: Ethics, Copyright and Professional Responsibilities

### UNIT 9: Online Tools, Uses & Web-based Development, Virtual Reality/QR Codes

- Human and non-human learning resources

### UNIT 10: Assistive Learning Tools Differentiated Instruction Digital Storytelling

- Video,
- Webcams,
- Virtual Field Trips

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in module?	A	B	C	D
L1	Use technology to facilitate and inspire student learning	N			X	X
L2	Achieving and maintaining expertise in the use of educational technology	N			X	X
L3	Develop project/problem-based/inquiry-based collaborative plans activities using technology tools	Y			X	X

L4	Use open-ended tools to support the development of the project-based collaborative activities in subject specific application	N			X	X
L5	Produce learning resources using technology tools in various subject areas.	Y			X	X
L6	Evaluate the relevance and appropriateness of ICT tools and resources based on the learning context.	Y		X	X	X
L7	Use technology tools to collaborate and share resources among communities of practice.	N			X	X
L8	Model digital-age work and learning	N			X	X
L9	Promote and model digital citizenship and responsibility	N			X	X
L10	Recognize the importance of continued professional growth and leadership in	N		X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA

## CORE COURSE

# CODE: CE303 ADVANCED PRACTICES FOR TEACHING THE STEM FIELDS

## COURSE DETAILS

Course level: Certificate

Course category: Core Course

Course credits: 10

Course duration: 10 weeks

Total contact hours: 40 (15hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 203 (90 hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course will help students facilitate learning in the science, technology, engineering and math (STEM) fields. Students will discuss and explore principles of teaching and learning, and use constructive alignment to plan, deliver and evaluate teaching and learning activities. This course will also explore how to plan learning outcomes and goals, evaluate forms of assessment, and select appropriate student-centered learning activities and methods to support student development in a cohesive way. Students will learn to use assessment for learning, use writing and discussions to support deep learning and critical thinking skills for students, and reflect on the role of the learning environment and how to include diverse students in your teaching. The course also includes an intense overview of the history, science, methods, and theories of integrated STEM education.

## LEARNING CONTENT AND OBJECTIVES:

By the end of the course, the candidate will:

- Develop (by integrating class readings, class discussions, personal use of technology and personal educational philosophy) a theoretically sound argument for embedding mathematical and scientific thinking strategies in the curricula
- Teaching basic knowledge of national standards in the fields of science, mathematics and technology teaching
- Demonstrate the ability to synthesize relevant information about the use of STEM thinking in primary or secondary education
- Use the vocabulary, key concepts, definitions and models that apply to STEM education



- Demonstrate the ability to collect, evaluate, synthesize and share real world data relevant to primary or secondary curricula
- Demonstrate problem-solving skills, evaluate the effectiveness of possible solutions, and discuss strategies and processes required for effective problem-solving
- Demonstrate the ability to work in collaborative design teams to meet specified criteria and solve design problems
- Development of innovative and alternative teaching methods and learning activities to promote STEM education
- Apply cognitive STEM tools (i.e. scientific model, design loop, etc.) and resources to solve human and environmental problems
- Demonstrate the ability to use different pedagogical strategies to improve STEM thinking in elementary or secondary school students
- Analyze characteristics, strengths, and weaknesses of current STEM education programs and initiatives
- Show proof of knowledge of the historical background and the development of the natural sciences, mathematics, technical education and engineering

## COURSE SCHEDULE AND TOPICS

This course will cover the following topics.

- Background and history of the STEM movement
  - What is the role of science, mathematics, technology, and engineering?
  - What is the difference between science and technology?
  - Why is STEM important?
    - The demand for skills
    - National rankings and current trends
    - The elementary gap
  - How is STEM different than traditional science and math
  - The role of problem solving and design
  - Barriers to STEM education
  - Strategies for effective STEM education
  - Problem-based learning
  - Performance based teaching and learning
- The power and promise of STEM education
  - Active learning and engagement
  - The role of the standards
  - Understanding by design--backwards design
  - STEM and 5E teaching
  - The relationship between the standards and engineering
  - Delivering the standards through engineering and design
  - Using standards to develop curriculum
- Science as a way of knowing
  - Inquiry-based teaching and learning
  - How does science work
  - Position of science in the modern world
  - History and nature of science
  - Unifying concepts
  - Science, technology, and engineering
- Mathematics as a way of knowing
  - Position of mathematics in the modern world

- Mathematics as a way of knowing
- Mathematical focal points
  - Mathematical thinking
  - Mathematical importance
  - Mathematical fit
  - Mathematical Connections
- Technology and engineering
  - Foundational concepts
  - The engineering design loop
  - Adhering to design parameters and constraints
  - Technological assessment
- Integrative STEM
  - Disciplinary, interdisciplinary, and trans-disciplinary strategies
  - Questioning/clarifying the problem
  - Identifying constraints/limitations
  - Gathering research
  - Quantifying/mental modeling
  - Visioning and graphic representation
  - Drawing and modeling (including software usage)
  - Prototyping and assessment
  - Artifact development
  - Communicating the results of engineering/design
- Teaching integrative STEM
  - Teaching with the end in mind
  - The role of design and engineering in the classroom
  - Curricular assessment procedures, tools, and techniques
  - Developing curriculum and activities
  - Instructional methods for teaching STEM
  - Collaboration strategies and resources

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assess in this module	A	B	C	D
L1	Develop (by integrating class readings, class discussions, personal use technology and personal educational philosophy) a theoretically sound argument for embedding mathematical and scientific thinking strategies the curricula	N		X	X	X
L2	Teaching basic knowledge of national standards in the fields of science, mathematics and technology teaching	N			X	
L3	Demonstrate the ability to synthesize relevant information about the use STEM thinking in primary or secondary education	Y			X	
L4	Use the vocabulary, key concepts, definitions and models that apply to STEM education	N		X	X	X
L5	Demonstrate the ability to collect, evaluate, synthesize and share real world data relevant to primary or secondary curricula	N		X	X	

L6	Demonstrate problem-solving skills, evaluate the effectiveness of possible solutions, and discuss strategies and processes required for effective problem-solving	N		X	X	X
L7	Demonstrate the ability to work in collaborative design teams to meet specified criteria and solve design problems	N			X	
L8	Development of innovative and alternative teaching methods and learning activities to promote STEM education	Y			X	
L9	Apply cognitive STEM tools (i.e. scientific model, design loop, etc.) and resources to solve human and environmental problems	Y			X	X
L10	Demonstrate the ability to use different pedagogical strategies to improve STEM thinking in elementary or secondary school students	Y			X	X
L11	Analyze characteristics, strengths, and weaknesses of current STEM education programs and initiatives	Y			X	X
L12	Show proof of knowledge of the historical background and the development of the natural sciences, mathematics, technical education and engineering	Y		X	X	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY: TBA



# Course Catalog 2023 – 2024

## **CiP/BB Courses**

*Last revised on March, 2024*



**European Business Institute of Luxembourg**

## Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent.

## CONTENTS

CiP/BB Courses	1
INTRODUCTION	3
CODE: CP100 - BUSINESS MANAGEMENT I & II (10 ECTS)	6
CODE: CP101 - HUMAN RESOURCE MANAGEMENT I & II (10 ECTS)	8
CODE: CP 102 - FINANCIAL ACCOUNTING I & II (10 ECTS)	10
CODE: CP 103 - BUSINESS ETHICS I & II (10 ECTS)	12
CODE: CP1/C - CASES IN GENDER EQUALITY(10 ECTS)	14
CODE: CP200 - CUSTOMER RELATIONS MANAGEMENT (5ECTS)	16
CODE: CP201 - BUSINESS FINANCE, I & II (10 ECTS)	18
CODE: CP202 - MACROECONOMICS, I & II (10 ECTS)	20
CODE: CP203 - THE GLOBAL ECONOMY (5 ECTS)	22
CODE: CP/2C - CASES IN FINANCE (10 ECTS)	24
CODE: CP/3C - CASES IN MARKETING (10 ECTS)	26
CODE: CP300- QUANTITATIVE BUSINESS METHODS, I & II (10 ECTS)	28
CODE: CP301 - MARKETING MANAGEMENT I & II (10 ECTS)	30
CODE: CP302 - COMMUNICATION SKILLS, (10 ECTS)	32
CODE: CP303-PRODUCTION AND OPERATIONS MANAGEMENT I & II (10 ECTS)	34
CODE: CP304 - STRATEGIC MANAGEMENT I & II (10 ECTS)	36

## INTRODUCTION

This is a full course syllabi for the Certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all Certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 30-40 contact hours and 200-240 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work and research.

One Executive Certificate of Business Administration (CP) Certificate semester consists of 13 weeks of class sessions and exam sessions..

The credit system used also remains fully compatible with the American educational system using semester and semester credit hours. The typical 180 European credit requirement for Certificate programs is considered equivalent to 120 American semester credit hours and 180 American semester credit hours.

## COURSE PLANNING

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the Certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## COURSE SCHEDULING

Courses are scheduled over the full duration of the semester and all courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 19.5 hrs (1.5) class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week for 10 weeks. Mid term exams take place in week 5 and final exams take place in week 13 of each semester.

## COURSE STRUCTURE

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject matter. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## COURSE CONTENT AND LEARNING OUTCOMES

All courses are Certificate level and are taught according to a student centered approach. Course content listed should be regarded as indicative course content. Learning outcomes listed are reference points and should be regarded as intended learning outcomes for what students are expected to be able to do at the



end of the course. Assessments done in the course should address these learning outcomes. The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at Certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

The overall learning of the courses at the Certificate program corresponds to the level descriptors of the European Qualifications Framework (EQF) for first cycle qualification. The overall learning of the Certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 6.

## SETTING

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

## CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING

- Demonstrate and/or work with:
- An understanding of the scope and defining features of a subject/discipline/sector, and an integrated knowledge of its main areas and boundaries.
- A critical understanding of a range of the principles, principal theories, concepts and terminology of the subject/discipline/sector.
- Knowledge of one or more specialisms that is informed by forefront developments.

## CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING

- Apply knowledge, skills and understanding:
- In using a range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a few skills, techniques, practices and/or materials that are specialised and/or advanced.
- In practising routine methods of enquiry and/or research.
- To practise in a range of professional level contexts that include a degree of unpredictability.

## CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS

- Undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues in a subject/discipline/sector.
- Identify and analyse routine professional problems and issues.
- Draw on a range of sources in making judgements.

## CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS

- Use a wide range of routine skills and some advanced and specialised skills in support of established practices in a subject/discipline/sector, for example:
- Present or convey, formally and informally, information on standard/mainstream topics in the subject/discipline/sector to a range of audiences.
- Use a range of ICT applications to support and enhance work.
- Interpret, use and evaluate numerical and graphical data to achieve goals/targets.

## CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS

- Exercise autonomy and initiative in some activities at a professional level in practice or in a subject/discipline/sector.

- Exercise managerial responsibility for the work of others and for a range of resources.
- Practise in ways that show awareness of your own and others' roles and responsibilities.
- Work, under guidance, with specialist practitioners.
- Seeking guidance where appropriate, manage ethical and professional issues in accordance with current professional and/or ethical codes or practices.

## COURSE EVALUATION

<b>Course evaluation: Study Load per 10 ECTS course</b>	<b>Total 276.5 hrs.</b>
- Lectures: one hour per week for (13 weeks)	19.5 hours
- Self-directed content learning & preparation: 9 hours per week (13 weeks)	117 hours
- Specific assignments: 3 x 3-hour assignments	9 hours
- Formative Assessments/Research assignments	4 hours
- Course Preparation and Discussion Forums: 2.5 hours per day for 10 Weeks	125 hours
- Written Summative Assessments	2 hours

<b>Course evaluation: Study Load per 5 ECTS course</b>	<b>Total 162.5 hrs.</b>
- Lectures: one hour per week for (13 weeks)	19.5 hours
- Self-directed content learning & preparation: 9 hours per week (13 weeks)	78 hours
- Specific assignments: 3 x 3-hour assignments	9 hours
- Research assignments for Module	4 hours
- Course Preparation and Discussion Forums 2.5 hours per day for 10 Weeks	50 hours
- Written Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CODE: CP100 - BUSINESS MANAGEMENT I & II (10 ECTS)

### COURSE DETAILS

Course level: Certificate Course

category: Core requirement Course

credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. The course covers the following topics: The Environment of Business; Business Ownership and Entrepreneurship; Management and Organization; Human Resources; Marketing; Finance and Investment.

### COURSE OBJECTIVES

- To identify and describe the influence of the environments created by the economy, technology, competition, diversity, global opportunities, and social responsibility.
- To compare the advantages and disadvantages of the major forms of business ownership and discuss why many people are willing to accept the risks of entrepreneurship.
- To understand the need for management in business organizations, the role of management in developing an organizational structure, and the process of producing products and services that satisfy customers.
- To describe the management role of acquiring and retaining human resources and creating a supportive work environment.
- To explain the marketing function and describe the concepts and processes involved in designing product strategy, promotion strategy, distribution strategy, and pricing strategy.
- To explore the ways of using technology to manage information and to understand accounting's role in managing financial information.
- To describe the financial management function and the role of money and financial institutions and to illustrate the concepts and processes involved in managing the acquisition and allocation of short term and long term funds.

### LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Identify the potential marketing opportunities that are created by the population trends; Relate how business institutions operate in our modern-day political, social and economic environment;
- Describe various business ownership forms;
- Acquire information about starting your own business;
- Explain management functions;
- Acquire a vocabulary for further study of business subjects;
- Describe the importance of marketing activities;
- Explain the challenges facing management;
- Identify basic long and short-term financial planning techniques;
- Describe how organizations protect themselves against potential losses; 10. Identify and apply business laws as they affect business;
- Discuss international trade and markets.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module ?	A	B	C	D
L 1	Identify the potential marketing opportunities that are created by the population trends; Relate how business institutions operate in our modern-day political, social and economic environment	YES	✓			
L 2	Describe various business ownership forms, Acquire information about starting your own business;	YES			✓	
L 3	Acquire a vocabulary for further study of business subjects, Identify and apply business laws as they affect business	YES			✓	
L 4	Present or convey, formally and informally, information on standard/mainstream topics in the subject/discipline/sector to a range of audiences. Identify basic long and short-term financial planning techniques;	YES			✓	✓
L 5	Explain the challenges facing management; Explain management functions; Describe the importance of marketing activities;	YES	✓		✓	✓

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- G. Pearson, The Rise and Fall of Management, Gower Publishing, 2009.
- Wren & A.G. Bedeian, The Evolution of Management Thought, 6th Edition, Wiley 2009.
- Atrill, P. & McLaney, E (2015) Accounting & Finance for Non-Specialists. Ninth Edition. Pearson.

- Boakes, K, Reading and Understanding the Financial Times. Second Edition. Prentice Hall, 2010.
- Willman, P. (2014) Understanding Management - the Social Science Foundations. Oxford Institute Press

# CODE: CP101 - HUMAN RESOURCE MANAGEMENT I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course

category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion

Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course will introduce students to the core of human resources function in organizations: acquiring, developing, motivating, and retaining people. The structure of HR policies and practices must enable employees to fully apply their skills to the achievement of organizational goals. Every essential element of the HR function - strategy, organizational design, policies, and programs - needs to align with HR and business strategy. In this course, the key elements of the HR function are discussed and students, using cases related to the experience of leading international companies to learn, how these key elements are related to organizational strategy. The course informs students about several key problems of contemporary global markets, which require essential changes of HR strategy, such as globalization, big data, dotcoms, and organizational alternatives to traditional business structures, such as Uber, Airbnb, Alibaba.

## COURSE OBJECTIVES

Introduce students to the core of human resources function in organizations: acquiring, developing, motivating, and retaining people

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Discuss the key functions and defining characteristics of HRM as a mechanism to add a competitive advantage to the organisation.
- Examine the resourcing strategies and processes that an organisation employs commenting on the contribution made by the HRM function to the process.
- Illustrate the role of HRM in the process of performance management and the development of employees.
- Apply theories of motivation, leadership and authority to address people-related issues in an organization - Analyze cases related to people management.
- Identify trends and challenges for HRM in the global organizational context
- Demonstrate the ability to work in diverse teams to provide effective solutions to HR problems.

- Analyse and apply concepts to explore a range of problems and operational issues that may be encountered within the professional framework of HRM.
- Apply knowledge to create, critique, and/or improve HR tools (e.g., a resume, a job ad, a performance evaluation sheet)
- Evaluate evidence synthesised from a range of diverse sources and develop rational arguments supported by reliable and validated sources of information.
- Demonstrate the ability to communicate (verbally and/or written) effectively and efficiently to the appropriate level, appreciating the context of HRM and the organisational / industry setting.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Discuss the key functions and defining characteristics of HRM as a mechanism to add a competitive advantage to the organisation.	Yes	X			
L2	Examine the resourcing strategies and processes that an organisation employs commenting on the contribution made by the HRM function to the process.	Yes	X			
L3	Evaluate evidence synthesised from a range of diverse sources and develop rational arguments supported by reliable and validated sources of information.	Yes		X		
L4	Analyse and apply concepts to explore a range of problems and operational issues that may be encountered within the professional framework of HRM.	No			X	
L5	Demonstrate the ability to communicate (verbally and/or written) effectively and efficiently to the appropriate level, appreciating the context of HRM and the organisational / industry setting.	No				X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ✕ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

# CODE: CP 102 - FINANCIAL ACCOUNTING I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate  
Course category: Core requirement  
Course credits: 10  
Course duration: 13 weeks  
Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)  
Total exam hours: 2  
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)  
Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Examines the development of financial statements, the objectives and purpose of financial statements including the underlying, methods, concepts, principles and measurement theories. Emphasizes the preparation, analysis and use of these statements to make operating, financial and investment decisions. Topics include understanding the operating cycle, receivables, inventories, plant and equipment, intangibles assets, liabilities, bonds, ownership and stockholders' equity. Special topics include the mathematics of present value theory, calculations and applications.

## COURSE OBJECTIVES

This course provides an introduction to financial accounting as the "language of business." It emphasizes the analysis and evaluation of accounting information from the perspective of both investors and managers in the processes of planning, decision-making, and control. The objective of the course is to provide an overview of financial accounting and external reporting, including the basic accounting concepts and principles, as well as the structure of the income statement, balance sheet, and statement of cash flows. The course covers the accounting for and the analysis of the most common and significant business transactions of a firm, such as credit sales, delivery of products and services, manufacturing processes and procurement, creation of operating infrastructure including production facilities, intellectual property, and goodwill, debt and equity financing, as well as other (potential) obligations towards customers, suppliers, or tax authorities.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Explain the purpose of accounting by mastering the language of business and accounting terminology. Understand the objectives and goals of accounting information systems and the role of



financial statements.

- Explain and differentiate between the methods of accounting and the accounting for merchandising companies and inventories.
- Prepare the multistep income statement, explain the objectives and purposes of this statement and the articulation of this statement with the other components of the financial statements.
- Prepare the statement of financial position, (the balance sheet), explain the objectives and purposes of this statement and the articulation of this statement with the other components of the financial statements.
- Identify and explain all of the fundamental accounts that comprise revenue, assets, liabilities and stockholders' equity.
- Prepare the statement of cash flows, explain the objectives and purposes of this statement and the articulation of this statement with the other components of the financial statements.

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Explain the purpose of accounting by mastering the language of business and accounting terminology. Understand the objectives and goals of accounting information systems and the role of financial statements.	NO	X		X	
L2	Identify and explain all of the fundamental accounts that comprise revenue, assets, liabilities and stockholders' equity	YES	X		X	
L3	Explain and differentiate between the methods of accounting and the accounting for merchandising companies and inventories.	YES	X		X	
L4	Prepare the multistep income statement, explain the objectives and purposes of this statement and the articulation of this statement with the other components of the financial statements,	YES	X			X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Jones, M. (2011) Creative accounting, fraud and international accounting scandals. • Wiley .
- Mallin, C. (2010) Corporate Governance, 2nd edition. OUP.
- Gray, R., & Bebbington, J. (2001) Accounting for the Environment.
- Sage Griffiths, I. (1995) New Creative Accounting: how to make to profits what you want them to be. • Perks, R. (1995) Accounting and Society.

# CODE: CP 103 - BUSINESS ETHICS I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course focuses on basic ethical viewpoints as a foundation and examines specific characteristics of business life through cases and examples. The fact that there is not one universal set of behaviors one considers ethical and no guidelines to follow to determine ethical behavior poses unique challenges to managers today. Yet, managers are faced daily with situations where individual values may conflict with those of teams or organizations. The course explores topics such as corporate responsibility and conflict of interest, employee rights, and advertising and information disclosure.

## COURSE OBJECTIVES

- Understanding the basic concepts of ethics and its role in business, entrepreneurship and economy
- Apply ethical principles in the process of leadership and decision-making
- Become familiar with the benefits of corporate social responsibility in the context of globalized economic and social relations
- Identify consequences of unethical business activities
- Be able to recognize the essential characteristics of "good society"

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able:

- To understand main types of ethical violations and consequence of their influence on business practice, economy and society in general;
- Prove criteria of employees' ethical behavior in decision making in conflict situations (cases of business ethics commissions);
- To use decision-making models in ethical dilemmas and situations in the workplace;
- To classify and define stakeholders interests in social, marketing problems of the company taking into account the ethical dilemmas of business;
- To prove the need of practical realization of initiatives of CSR.

After taking the course of Business Ethics students should be able to:

- Identify reasons of emergence of Business Ethics and CSR concepts and the main stages of their genesis;
- Explore problems, opportunities and methods of formation of ethical and morality behavior of personnel;
- Discuss possibilities of regulation of ethical violations and counteraction of corruption in the organization;
- Recognise the effects and potential of CSR
- Explain how to coordinate policy of CSR to abilities and the purposes of development of the organization, which competitive advantages of SCR are used by a company;
- Demonstrate the ability to appraise the ideas and arguments of academics and practitioners to assess the validity of the conclusions reached within the context of CSR and Business Ethics.
- Understand how the management of the company can stimulate successful interaction with shareholders and stakeholders;
- Develop the ability to judge the morality of business practices and recognize the importance of ethics in the business environment
- Develop an understanding of personal responsibility in decision making.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module ?	A	B	C	D
L 1	Identify reasons of emergence of Business Ethics and CSR concepts and the main stages of their genesis;	YES	X			
L 2	Explain how to coordinate policy of CSR to abilities and the purposes of development of the organization, which competitive advantages of SCR are used by a company;	YES	X			
L 3	Demonstrate the ability to appraise the ideas and arguments of academics and practitioners to assess the validity of the conclusions reached within the context of CSR and Business Ethics.	YES		X		
L 4	Develop the ability to judge the morality of business practices and recognize the importance of ethics in the business environment	YES			X	
L 5	Develop an understanding of personal responsibility in decision making.	YES				X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Hutchings, K. (2010) Global Ethics. An Introduction, Polity: Cambridge • Kevin Gibson, Ethics and Business: An Introduction. Cambridge Institute Press, 2007.

# CODE: CP1/C - CASES IN GENDER EQUALITY(10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course offers an introduction to Women's and Gender Studies, an interdisciplinary academic field that explores critical questions about the meaning of gender in society. The primary goal of this course is to familiarize students with key issues, questions and debates in Women's and Gender Studies scholarship, both historical and contemporary. Gender scholarship critically analyzes themes of gendered performance and power in a range of social spheres, such as law, culture, education, work, medicine, social policy and the family.

## COURSE OBJECTIVES

Throughout the semester, we will "question gender" in multiple ways:

- Why has gender been a primary organizing principle of society?
- How do "gendered scripts" for dress, appearance and behavior emerge among different social groups and in different societies and historical periods?
- How do we explain the sexual division of labor and the unequal social status of women and girls and those activities and roles deemed "feminine" in society?
- In what ways does gender intersect with race, ethnicity and sexuality?
- How do gendered structures of power and authority operate?
- What factors contribute to the formation and success of movements for and against gender equality and fluidity?

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Understand and engage with central debates in the field of Women's and Gender Studies.
- Define and apply basic terms and concepts central to this field.
- Apply a variety of methods of analyzing gender in society, drawing upon both primary and secondary sources.

- Apply concepts and theories of Women's and Gender Studies to life experiences and historical events and processes.
- Communicate effectively about gender issues in both writing and speech, drawing upon Women's and Gender Studies scholarship and addressing a public audience

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Asses sed in this modul e?	A	B	C	D
L 1	Understand and engage with central debates in the field of Women's and Gender Studies.	NO	X	X		
L 2	Define and apply basic terms and concepts central to this field.	YES	X	X	X	X
L 3	Apply a variety of methods of analyzing gender in society, drawing upon both primary and secondary sources.	YES	X	X	X	X
L 4	Apply concepts and theories of Women's and Gender Studies to life experiences and historical events and processes.	YES	X	X	X	X
L 5	Communicate effectively about gender issues in both writing and speech, drawing upon Women's and Gender Studies scholarship and addressing a public audience.	NO	X	X		X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Crawford, M. (2018). Transformations- Women, Gender, and Psychology. New York: McGraw-Hill Education.
- Grewa, I., & Kaplan, C. (2006). An Introduction to Women's Studies Gender in a Transnational World. New York: The McGraw-Hill Companies, Inc.
- Lyons, Sofia. "Explaining the Implicit Quota on Women Executives." New York Magazine, May 2015.
- Smedley, Tim. "The Evidence is Growing—There Really is a Business Case for Diversity." Financial Times, May 15, 2014.
- Hunt, Vivian, Dennis Layton, et al. "Why Diversity Matters?" McKinsey & Company, January 2015.

# CODE: CP200 - CUSTOMER RELATIONS MANAGEMENT (5ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The Customer Relations Management course is designed to provide students with a comprehensive understanding of the principles and strategies involved in building and maintaining strong customer relationships. In today's highly competitive business landscape, organizations recognize the significance of fostering loyal and satisfied customers. This course explores the key concepts, theories, and practical techniques employed in effective customer relations management.

## COURSE OBJECTIVES

- Understand the Importance of Customer Relations Management
- Analyze Customer Needs, Expectations, and Preferences
- Develop Strategies for Customer Acquisition and Retention
- Apply Effective Communication and Relationship-Building Techniques
- Utilize Technology and CRM Systems for Customer Relations
- Resolve Customer Issues and Handle Complaints
- Measure and Evaluate Customer Relations Initiatives
- Apply Ethical and Responsible Practices

## LEARNING CONTENT AND OUTCOMES

- Understand the importance of customer relations management in achieving organizational success.
- Identify and analyze customer needs, expectations, and preferences.
- Develop strategies to attract and acquire new customers.
- Apply effective communication and relationship-building techniques to enhance customer satisfaction.
- Utilize technology and CRM systems to optimize customer relations.
- Resolve customer issues and handle complaints with professionalism and empathy.
- Measure and evaluate the effectiveness of customer relations initiatives.
- Apply ethical and responsible practices in managing customer relationships.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Asses sed in this modul e?	A	B	C	D
L 1	Critically understand the different types of consumer buying behavior.	Yes	X	X	X	
L 2	Recognize the stages of the consumer buying decision process and understand how the process relates to different types of buying decisions.	Yes	X		X	
L 3	Explore and evaluate how personal factors may affect the consumer buying decision process.	YES	X	X	X	X
L 4	Learn and understand about the psychological factors that may affect the consumer buying decision process.	Yes	X		X	X

L 5	Understand why it is important for marketers to attempt to understand consumer buying behavior and the role of this behavior in marketing strategies.	Yes	X	X	X	X
--------	---	-----	---	---	---	---

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Principles of Customer Relationship Management by Baran, Galka, Strunk,
- SOUTHWESTERN [CENGAGE Learning], 2008
- Customer Relationship Management by Francis Buttle (2nd Edition), Elsevier Ltd., 2009

# CODE: CP201 - BUSINESS FINANCE, I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	CP102 FINANCIAL ACCOUNTING, I & II
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course presents the foundations of finance with an emphasis on applications vital for corporate managers. We discuss most of the major financial decisions made by corporate managers both within the firm and in their interactions with investors. Essential in most of these decisions is the process of valuation, which will be emphasized throughout the course.

## COURSE OBJECTIVES

This course focuses on providing theoretical and practical frameworks for understanding how investors, and more importantly, how company managers, can influence both the amount and risk of cash flows to enhance shareholder value. We will examine how managers should make investment, financing, and dividend decisions that enhance stockholders' investment value and why managements often don't make decisions that increase shareholder value.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Explain the role of the organisation's financial managers in realizing these strategic objectives.
- Be able to describe and evaluate the different sources of corporate finance (e.g. equity, debt, retained earnings and so on ...), and be able to explain the relative advantages and disadvantages of each source.
- Understand how risk and the cost of capital impact on investment appraisal, and explain how such factors affect the value of a capital project.
- Explain how the corporation's capital structure, payout policy and risk policy impact upon investment decisions.
- Have good understanding of, and be able to discuss current topical issues under debate in the world of corporate finance.



<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
--	--------------------------	---	---	---	---

L1	Explain the role of the organisation's financial managers in realizing these strategic objectives.	Yes	x	x	x	
L2	Be able to described and evaluate the different sources of corporate finance (e.g. equity, debt, retained earnings and so on ...), and be able to explain the relative advantages and disadvantages of each source.	Yes	x	x	x	x
L3	Understand how risk and the cost of capital impact on investment appraisal, and explain how such factors affect the value of a capital project.	Yes		x	x	
L4	Explain how the corporation's capital structure, payout policy and risk policy impact upon investment decisions.	Yes	x	x	x	
L5	Have good understanding of, and be able to discuss current topical issues under debate in the world of corporate finance.	Yes	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Jean Tirole, "The Theory of Corporate Finance", Princeton Institute press, 2006.
- Brigham, Houston. Essentials of Financial Management, 2nd Edition.
- Cengage Learning Asia. 2010.
- Brealey, Myers, Marcus. Fundamentals of Corporate Finance, 5th Edition.
- McGraw-Hill. 2007. Solely distributed by C&E Publishing.
- Keown, Martin, Petty, Scott. Financial Management Principles and Applications, 10th Edition. Prentice-Hall. 2005.

## TERM II

### CODE: CP202 - MACROECONOMICS, I & II (10 ECTS)

#### COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

#### COURSE OVERVIEW

This course introduces students to macroeconomics, the study of the economy as a whole. Macroeconomics applies the basic principles of economics to whole economic systems and the relationships among sectors of the economy. Topics include unemployment, inflation, national income and employment theory, government expenditures and taxation, the role of the banking system, and monetary and fiscal policies. The course emphasizes the development of conceptual tools to analyze the economic problems facing modern society.

#### COURSE OBJECTIVES

The course will cover the determination of income, employment, the price level, interest rates and exchange rates in the economy. The economy will be analysed in the short run (e.g. business cycle and stabilization policy) and in the long run (e.g. economic growth). The insights of Keynesian and classical theories will be integrated. During the course a variety of simple models will be presented. As macroeconomics is an empirical discipline the course will cover case studies and statistical data interpretation. Special attention will be given to current European developments.

#### LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Demonstrate knowledge of macroeconomic concepts by explaining them using appropriate terminology
- Demonstrate knowledge of macroeconomic theories by analysing their assumptions and differences,
- Demonstrate understanding of macroeconomic models by describing relationships among macroeconomic variables,
- Demonstrate knowledge and understanding of current macroeconomic problems by applying theories to concrete cases,
- Demonstrate and communicate an understanding of economic Policies,
- Demonstrate and communicate an understanding of the European Union as an economic Bloc.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:			Assessed in this module?	A	B	C	D
L1	Demonstrate knowledge of macroeconomic explaining them using appropriate terminology	concepts	Yes	X	X	X	X
L2	Demonstrate knowledge of macroeconomic analysing their assumptions and differences,	theories	Yes	X	X	X	X
L3	Demonstrate understanding of macroeconomic models by describing relationships among macroeconomic variables,		Yes	X	X	X	X
L4	Demonstrate knowledge and understanding of current macroeconomic problems by applying theories to concrete cases,		Yes	X	X	X	X
L5	Demonstrate and communicate an understanding of economic Policies,		Yes	X	X	X	X
L6	Demonstrate and communication an understanding of the European Union as an economic Bloc		Yes	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Olivier Blanchard (2017). Macroeconomics, Seventh Edition, Pearson.
- Krugman and Wells, Eds., Macroeconomics 3 rd. ed, Worth Publishers, 2012

# CODE: CP203 - THE GLOBAL ECONOMY (5 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation) Language of instruction: English

Recommended	CP 202 MACROECONOMICS
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Exchange of goods, services and capitals across borders represent a significant share of most countries' gross domestic product. This course aims to teach BBA students the fundamentals of international trade in today's global business world, including the concepts and principles of international economics. Therefore, understanding the global business context and the current global challenges reveal to be the key to success in global commerce.

## COURSE OBJECTIVES

The objectives of this course articulate around discovering the concepts and principles of International Trade, investigating the impacts of exchange rates and interest rates, and exploring the concept of the Balance of Trade.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Demonstrate an understanding of the global trade environment
- Demonstrate a critical understanding of the concepts and principles of international trade
- Identify and evaluate the exchange rates and interest rates impacts on global trade
- Critically analyse the concept of balance of trade

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Asses sed in this modul e?	A	B	C	D
L 1	Demonstrate an understanding of the global trade environment	Yes	X	X		X

L 2	Demonstrate a critical understanding of the concepts and principles of international trade	Yes	X	X	X	X
L 3	Identify and evaluate the exchange rates and interest rates impacts on global trade	Yes	X	X		X
L 4	Critically analyse the concept of balance of trade	Yes	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Schiller, B. And Gebhardt, K. (2016). The Economy Today. 14th Edition. McGraw Hill.
- Recommended articles are available on Moodle, listed under each session.

# CODE: CP/2C - CASES IN FINANCE (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course uses case studies to give practical illustrations of financial problems. Students learn to deal with a range of cases systematically: identifying issues, determining possible impacts, evaluating proposals and producing solutions.

## COURSE OBJECTIVES

To bring financial decisions from the business world to the classroom, through the case method approach, by helping students develop decision-making skills in unstructured, uncertain, and complex (i.e., realistic) situations.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- To apply theory to practical situations/cases
- To develop and analyze a business plan based on a business case
- To improve analytical skills
- To learn the analytical frameworks used to assess decisions that entrepreneurs and managers face

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	To apply theory to practical situations/cases	Yes	X		X	
L2	To develop and analyze a business plan based on a business case	Yes		X	X	X

L 3	To improve analytical skills	Yes	X	X		
--------	------------------------------	-----	---	---	--	--

L 4	To learn the analytical frameworks used to assess decisions that entrepreneurs and managers face	Yes		X		X
--------	--	-----	--	---	--	---

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Case Studies in Finance: Managing for Corporate Value Creation by Bruner, Eades, Schill, 7th edition, New York, NY, 2014

# CODE: CP/3C - CASES IN MARKETING (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Marketing is fundamental to the operations of any organisation whether it is a local family-run convenience store, a charity, a new online game or a product-diverse multinational enterprise. The course examines the fundamentals of marketing setting them within a contemporary context to which students can relate. This course provides students with marketing case study analysis, based on real-life examples of marketing approaches and strategies. Marketing is explored from an academic, practitioner and student (as a consumer) perspective. All require to a greater or lesser extent marketing activities. Moreover, each and everyone one of us engages, both consciously and subconsciously, with marketing messages throughout our daily lives. As marketing plays a crucial role both in our personal lives and that of a diverse range of organisations it is considered a fundamental module. However, marketing does not operate in isolation and therefore must be considered in relation to other functional activities such as finance.

## COURSE OBJECTIVES

Introduce students to the core of marketing functions in organizations: promoting, communicating, launching new products and services, and creating loyal customers. Also the course aims to deliver content that explores the frameworks, ideas and concepts that underpin marketing and considers their relationship to practice.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Explain, using detailed examples, how the marketing mix operates within different organisational settings.
- Critically evaluate, using detailed examples, how a range of external factors can influence/impact upon marketing operations.
- Debate ethical issues relating to marketing operations.
- Explain the relevance of branding to both products and services.
- Evaluate evidence synthesised from a range of diverse sources.
- Develop rational arguments supported by reliable and validated sources of information.
- Engage in critical self-reflection to help identify both strengths and areas for further development.
- Develop their communication skills.



- Demonstrate their ability to be independent and take responsibility for their actions.
- Develop their time management skills able to meet challenging deadlines.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Explain, using detailed examples, how the marketing mix operates within different organisational settings.	Yes	X			
L2	Critically evaluate, using detailed examples, how a range of external factors can influence/impact upon marketing operations.	Yes		X		
L3	Evaluate evidence synthesised from a range of diverse sources.	Yes		X		
L4	Develop their communication skills.	Yes			X	
L5	Demonstrate their ability to be independent and take responsibility for their actions.	Yes				X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Calkins, Breakthrough Marketing Plans (Palgrave Macmillan, 2008)

# CODE: CP300- QUANTITATIVE BUSINESS METHODS, I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation) Language of instruction: English

Pre-requisites	Year I and Year II courses
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

All Business Management students require the ability to deal with quantitative material, including the collection, collation and analysis of such data. This course introduces students to the quantitative techniques in business mainly centred on statistical aspects.

## COURSE OBJECTIVES

This course aims to enhance your ability to analyse financial and economic data and thereby to assist in making business decisions. It is designed for those who have had little or no quantitative training in their Certificate degree but who need mathematical and statistical skills for specialisations in the areas of Finance, Economics, Accounting and Business Strategy. That course has a lesser focus on mathematics and a greater focus on analysing textual data.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Describe basic statistical techniques for data collection, presentation and analysis.
- Critically review the collection, presentation and analysis of data.
- Understand and explain how to tackle business problems through the use of statistical techniques.
- Apply statistical techniques to data.
- Discuss the results of the application of statistical techniques to data in written reports and/or oral presentations.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
--	--------------------------	---	---	---	---

L 1	Describe basic statistical techniques for data collection, presentation and analysis.	No	X		x	
L 2	Understand and explain how to tackle business problems through the use of statistical techniques.	Yes	X	x		
L 3	Critically review the collection, presentation and analysis of data.	Yes	x	X		
L 4	Apply statistical techniques to data.	No	x	x		x
L 5	Discuss the results of the application of statistical techniques to data in written reports and/or oral presentations.	No	x		x	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- QUANTITATIVE METHODS FOR BUSINESS / Anderson, David Ray ; Sweeney, Dennis J ; Williams, Thomas Arthur. -- Cincinnati, Ohio: South-Western College Pub.
- STATISTICS / Hays, William L. -- Fort Worth: Harcourt Brace College
- STATISTICAL THINKING (Improving Business Performance) / Roger Hoerl and Donald D. Snee, Duxbury (Thomson Learning)
- APPLIED SIMULATION MODELING / Seils, Ceric and Tadikamalla, Duxbury Applied Series (Thomson Learning)
- MAKING HARD DECISIONS / Robert T. Clemen and Terence Reilly, Duxbury (Thomson Learning).
- DATA ANALYSIS & DECISION MAKING WITH MICROSOFT EXCEL, Al-bright, Winston and Zappe, (Thomson-Duxbury).
- Haeussler, E.F. Paul, R.S and Wood, R.J. 2018, Introductory Mathematical Analysis for Business, Economics and the Life and Social Sciences 14th ed., Pearson New International edition
- Swift, L. and Piff, S. 2014 Quantitative Methods for Business, Management and Finance, 4th ed Basingstoke: Palgrave Macmillan.

# CODE: CP301 - MARKETING MANAGEMENT I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The objective of this course is to introduce students to the concepts, analyses, and activities that comprise marketing management, and to provide practice in assessing and solving marketing problems. Topics include marketing strategy, segmentation- targeting and positioning, customer behavior, market research, competitive analysis and the marketing mix planning and development (product management, pricing, promotion, distribution and salesforce management).

## COURSE OBJECTIVES

- To enhance the student's knowledge about marketing theories, principles, strategies and concepts and how to apply them.
- To provide the students with marketing analysis tools to identify the firm opportunities.
- To allow the students to apply marketing concepts and theories to real marketing situations. To identify the marketing mix strategies that companies are applying in real-world situation

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Define the term marketing and explain its role and importance in an individual firm and the overall economy.
- Understand the importance of strategic marketing and know the basic outline for a marketing plan:
  - Analyze the external environment to identify opportunities or challenges to a business.
  - Identify and classify marketing segments and targets, demonstrating the use of marketing research techniques.
  - Create and use a mission statement, SWOT, Ansoff analysis and SMART goals.

- Describe the elements of the marketing mix (4Ps & 7PS of marketing):
  - Product: Explain the use of product mix and life cycle in a marketing strategy
  - Place / Marketing Channels: Identify different marketing channels and develop distribution strategies.
  - Promotion / Communication: Describe the role of advertising and public relations in marketing a product or service and link it with the IMC (integrated Marketing Communication).
  - Pricing: List and explain a variety of pricing objectives.
- Recognize the importance of marketing in an organization, how marketing relates to other business functions, and the role of marketing in society at large.
- Select, analyze and define a target market for a selected product or service.
- Develop a marketing plan or strategy for a product or service (e.g., company objectives, marketing objectives, target market(s), advertising/ communication, pricing, distribution, product/ service development, evaluation of competitors, contingency plans, budget, etc.)
- Evaluate/analyze the marketing strategy for an existing product or services.
- Know the basic marketing concepts and theories.

Learning Outcomes: On successful completion of the course the candidate will be able to:		Asses sed in this modul e?	A	B	C	D
L 1	<b>Knowledge and understanding</b> of the marketing role and basic marketing terminology.	Yes	X			
L 2	<b>Practice applied knowledge</b> , use of techniques internal and external analysis.	Yes		x	x	
L 3	<b>Generic cognitive skills:</b> being able to apply the market research methods – quantitative and qualitative	Yes	x		x	
L 4	<b>Communication:</b> present and convey information related to marketing concepts and apply them to real-world examples.	Yes	x	x		
L 5	Autonomy and teamwork: exercise autonomy and initiative in some activities at a professional level and working with peers.	Yes			x	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- R. Kerin, S. Hartley & W. Rudelius, Marketing, 11th edition, Irwin/McGraw-Hill.

# CODE: CP302 - COMMUNICATION SKILLS, (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100

Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Business Communication Skills gives you a clear insight into what constitutes effective oral and written business communication in a fast-paced global business environment, and provides you with the opportunity to develop your own workplace communication skills. The course is highly interactive and task-oriented. Case analyses, simulations, written assignments and individual and team presentations will allow you to practise the theories and key concepts introduced during the course. Peer and lecturer feedback will give you a clear picture of your present communication skills, and an indication of how you can enhance your performance

## COURSE OBJECTIVES

The following objectives based on previous thoughts of the business communication faculty affect us:

- Listen, read and comprehend
- Paraphrase and summarize information
- Distinguish between facts, assumptions, and opinions
- Respond appropriately in a clear and concise fashion (oral and written)
- Synthesize information from different sources
- Organize information to support conclusions
- Use an appropriate format and business writing style and apply conventions to Standard English
- Document and cite sources to avoid plagiarism.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to: By the end of the course you will be able to:

- analyse audiences and define objectives to create targeted messages
- write coherent and convincing, reader-friendly business documents
- craft clear, focused and engaging business presentations
- critically assess your own and others' business communications

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
--	--------------------------	---	---	---	---

L1	analyse audiences and define objectives to create targeted messages	Yes	X	x	x	x
L2	write coherent and convincing, reader-friendly business documents	Yes	x	x	x	x
L3	craft clear, focused and engaging business presentations	Yes	x	x	x	x
L4	critically assess your own and others' business communications	Yes	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Mary Ellen Guffey and Dana Loewy, Business Communication: Process & Product, 9th edition.

# CODE: CP303-PRODUCTION AND OPERATIONS MANAGEMENT I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation) Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course is an introduction to the concepts, principles, problems, and practices of operations management. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organization. Topics include operations strategy, process design, capacity planning, facilities location and design, forecasting, production scheduling, inventory control, quality assurance, and project management. The topics are integrated using a systems model of the operations of an organization.

## COURSE OBJECTIVES

This course provides a general introduction to operations management. Operations management is the design and control of business processes, that is, the recurring activities of a firm. Along with finance and marketing, operations is one of the three primary functions of a firm. At the risk of being simplistic, one may say that marketing generates the demand, finance provides the capital, and operations produces the product or delivers the service. More generally, operations spans the entire organization: COOs are in charge of R&D, design/engineering, production operations, marketing, sales, support and service. This course aims to (1) familiarize you with the major operational problems and issues that confront managers, and (2) provide you with language, concepts, insights and tools to deal with these issues in order to gain competitive advantage through operations.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Develop an understanding of and an appreciation for the production and operations management function in any organization.
- To understand the importance of productivity and competitiveness to both organizations and nations.
- To understand the importance of an effective production and operations strategy to an organization.
- To understand the various production and operations design decisions and how they relate to the overall strategies of organizations.



- To understand the importance of product and service design decisions and its impact on other design decisions and operations.
- Obtain an understanding of quality management practice in organizations and how total quality management and six-sigma facilitate organizational effectiveness.
- To understand the relationship of the various planning practices of capacity planning, aggregate planning, project planning and scheduling.
- To understand the roles of inventories and basics of managing inventories in various demand settings.
- To understand contemporary operations and manufacturing organizational approaches and the supply-chain management activities and the renewed importance of this aspect of organizational strategy.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Asses sed in this modul e?	A	B	C	D
L 1	Gaining an appreciation of the strategic importance of operations and supply chain management in a global business environment	Yes	X	x	x	x
L 2	Being able to describe the impact of operations and supply chain management on other functions within a firm, as well as on the competitive position of the firm	Yes	x	x		
L 3	Developing a working knowledge of the concepts and methods related to designing and managing operations and to create value along the supply chain.	Yes	x	x		
L 4	Learning a skill set for continuous improvement	Yes	x	x		x
L 5	Enable learners to recognise the role of technology & strategy in operations management	Yes	x	x		

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Operations Management by William J. Stevenson. Eighth Edition, Irwin / McGraw-Hill, 2005.
- Jacobs, F.R. & R.B. Chase. (2010). Operations and Supply Chain Management (13th edition). Boston: McGraw-Hill Irwin.
- G. Cachon and C. Terwiesch. Matching Supply with Demand: An Introduction to Operations Management (3rd Ed). McGraw-Hill. 2013

# CODE: CP304 - STRATEGIC MANAGEMENT I & II (10 ECTS)

## COURSE DETAILS

Course level: Certificate Course category: Core requirement Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation) Language of instruction: English

Pre-requisites	All courses in Year I and Year 2 / All Term I Courses in Year 3
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

This course introduces the key concepts, tools, and principles of strategy formulation and competitive analysis. It is concerned with managerial decisions and actions that affect the performance and survival of business enterprises. The course is focused on the information, analyses, organizational processes, and skills and business judgment managers must use to devise strategies, position their businesses, define firm boundaries and maximize long-term profits in the face of uncertainty and competition. Strategic Management I & II is an integrative and interdisciplinary course. It assumes a broad view of the environment that includes buyers, suppliers, competitors, technology, the economy, capital markets, government, and global forces and views the external environment as dynamic and characterized by uncertainty. In studying strategy, the course draws together and builds on all the ideas, concepts, and theories from your functional courses such as Accounting, Economics, Finance, Marketing, Organizational Behavior, and Statistics. The course takes a general management perspective, viewing the firm as a whole, and examining how policies in each functional area are integrated into an overall competitive strategy. The key strategic business decisions of concern in this course involve selecting competitive strategies, creating and defending competitive advantages, defining firm boundaries and allocating critical resources over long periods. Decisions such as these can only be made effectively by viewing a firm holistically, and over the long term

## COURSE OBJECTIVES

- To develop your capacity to think strategically about a company, its business position, how it can gain sustainable competitive advantage and formulate plans to ensure organizational viability.
- To develop skills using strategic and functional level analytical tools in a variety of companies and industries to facilitate the development and implementation of effective business strategy.
- To integrate and synthesize knowledge gained in business core courses into a comprehensive approach to managing a multifunctional business organization.
- To organize and present strategic and operational information appropriate to professional standards and practices.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Analyze the main structural features of an industry and develop strategies that position the firm most favorably in relation to competition and influence industry structure to enhance industry attractiveness.
- Recognize the different stages of industry evolution and recommend strategies appropriate to each stage.
- Appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage and formulate strategies that leverage a firm's core competencies.
- Demonstrate understanding of the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios.
- Distinguish the two primary types of competitive advantage: cost and differentiation and formulate strategies to create a cost and/or a differentiation advantage.
- Analyze dynamics in competitive rivalry including competitive action and response, first-mover advantage, co-opetition and winner-take-all and make appropriate recommendations for acting both proactively and defensively.
- Formulate strategies for exploiting international business opportunities including foreign entry strategies and international location of production.
- Make recommendations for vertical changes in the boundary of the firm based on an understanding of the advantages of vertical integration and outsourcing and the factors that determine the relative efficiency of each.
- Make recommendations for horizontal changes in the boundary of the firm based on an understanding of the conditions under which diversification creates value.
- Demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.
- Recognize strategic decisions that present ethical challenges and make appropriate recommendations for ethical decision-making.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Analyze the main structural features of an industry and develop strategies that position the firm most favourably in relation to competition and influence industry structure to enhance industry attractiveness.	Yes	X			
L2	Recognize the different stages of industry evolution and recommend strategies appropriate to each stage.	Yes		x		
L3	Appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage and formulate strategies that leverage a firm's core competencies.	Yes		x		
L4	Demonstrate understanding of the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios.	Yes	x			
L5	Distinguish the two primary types of competitive advantage: cost and differentiation and formulate strategies to create a cost and/or a differentiation advantage.	Yes			X	

L 6	Analyze dynamics in competitive rivalry including competitive action and response, first-mover advantage, co-opetition and winner-take-all and make appropriate recommendations for acting both proactively and defensively.	Yes		X		
L 7	Formulate strategies for exploiting international business opportunities including foreign entry strategies and international location of production.	Yes			X	
L 8	Make recommendations for vertical changes in the boundary of the firm based on an understanding of the advantages of vertical integration and outsourcing and the factors that determine the relative efficiency of each.	Yes				X
L 9	Make recommendations for horizontal changes in the boundary of the firm based on an understanding of the conditions under which diversification creates value.	Yes				X
L 10	Demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.	Yes			X	
L 11	Recognize strategic decisions that present ethical challenges and make appropriate recommendations for ethical decision-making.	Yes			X	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Dess, G. G., Lumpkin, G. T., Eisner, A. B., McNamara, G. 2013. Strategic Management: Creating Competitive Advantages, 7th Edition, McGraw-Hill International Edition, McGraw-Hill/Irwin.
- Hill, C. W. L. & Jones, G. R. 2008. Strategic Management: An integrated approach, 8th Edition, Houghton Mifflin

# Course Catalog

## Certificate Impact Program Courses

*Last revised on March, 2024*

**European Business Institute of Luxembourg**  
Wiltz Campus | Online Campus

The information contained in this document is for informational purposes only and is believed to be reliable and accurate. We assume no responsibility or liability for any inaccurate, delayed or incomplete information, nor for any actions taken in reliance thereon. The contents of this document are strictly confidential and are not to be reproduced without the organization's express written consent.

<b>INTRODUCTION</b>	<b>1</b>
CODE: CP109 - WOMEN AND LEADERSHIP	5
CODE: CP309 - BUSINESS & SUSTAINABILITY	8
CODE: CP104 - INTRODUCTION TO PYTHON	10
CODE: CP108 - PLUTUS/HASKELL I	12
CODE: CP306 - FUNDAMENTALS OF BLOCKCHAIN TECHNOLOGIES	13
CODE: CP307 - MOBILE APPLICATION DEVELOPMENT	16
CODE: CPF100 GESTION D'ENTREPRISE	19
CODE: HSP100 - FRONT OFFICE OPERATIONS	21
CODE: HSP101 FOOD AND BEVERAGE SUPERVISION	26
CODE: GWTL100 - BUSINESS NEGOTIATIONS	28
CODE: GWTL101 - AGILE SOFTWARE METHODOLOGIES	30
<b>ENGLISH LANGUAGE COURSES</b>	<b>33</b>
CODE: ENGLISH A1 BEGINNERS ENGLISH COURSE	33
CODE: ENGLISH A2 BASIC ENGLISH	34
CODE: ENGLISH B1 INTERMEDIATE ENGLISH	35
CODE: ENGLISH B2 UPPER-INTERMEDIATE ENGLISH	35
CODE: ENGLISH FOR BUSINESS 1: ADVANCED ENGLISH	37
CODE: ENGLISH FOR BUSINESS 2: PROFICIENCY ENGLISH	38
<b>PROJECT MANAGEMENT</b>	<b>39</b>
CODE: CP105 - PROJECT MANAGEMENT CAPM I	39
CODE: CP205 - PROJECT MANAGEMENT CAPM II	42
CODE: CP305 - PROJECT MANAGEMENT CAPM III	45
CODE: CP305A- PROJECT MANAGEMENT CAPM IV	48
<b>CPA PROGRAM</b>	<b>51</b>
SECTION 1	52
SECTION 2	52
SECTION 3	53
SECTION 4	54
SECTION 5	54
	<b>286</b>

SECTION 6	55
<b>FINTECH AND BLOCKCHAIN</b>	<b>57</b>
CODE: BSDL101 - INTRODUCTION TO DIGITAL CURRENCIES, ICOs& MARKETS	57
CODE: BSDL102 - CYBER SECURITY RISK REGULATION	60
CODE: BSDL200 - BLOCKCHAIN TECHNOLOGY FUNDAMENTALS	62
CODE: BSDL300 -PRINCIPLES IN INNOVATION DISRUPTION	64
<b>COMPLIANCE COURSES</b>	<b>67</b>
CODE: COM101 - AML/KYC/COMPLIANCE- PRACTICAL FRAMEWORK	67
CODE: COM 102 COMPLIANCE - MARKET INTEGRITY AND PREVENTION OF MARKET ABUSE	71
CODE: COM104 COMPLIANCE- CUSTOMER/INVESTOR PROTECTION	73

## INTRODUCTION

This is a full course syllabi for the certificate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all certificate courses. Credits are expressed using the European Credit Transfer System. One European credit stands for 30 hours of workload. The EBU course load consists of 30-40 contact hours and 200-240 study hours. Contact hours include lectures, discussion forums and examinations and study hours include independent study, practical work and research.

One Business Certificate Program semester consists of 13 weeks of class sessions and exam sessions.

The credit system used also remains fully compatible with the American educational system using semester and semester credit hours. The typical 180 European credit requirement for Certificate programs is considered equivalent to 120 American semester credit hours and 180 American semester credit hours.

## COURSE PLANNING

The total number of courses offered is dependent on the total credit study plan requirements of enrolled students. Students plan their courses according to course availability and prerequisites. Some of the courses have required prerequisites.

A minimum of one course from each of the certificate specialization courses is offered. The total number of specialization courses offered per specialization is dependent on the total credit and course requirements of enrolled students. Students plan their courses according to course availability. None of the specialization courses have required prerequisites.

## COURSE SCHEDULING

Courses are scheduled over the full duration of the semester and 10 weeks. Mid term exams take place in week 5 and final exams take place in week 13 of each semester.

## COURSE STRUCTURE

Students are provided a strong theoretical foundation and are introduced to the various concepts in order to gain a thorough understanding of the subject. All courses finish within one semester. Certificate courses consist of 39 contact hours, 1-2 midterm exam hours and 2 final exam hours. Contact hours are usually scheduled as 13 one (1) hour class sessions with one session per week for the duration of the semester and 2 hours of discussion forum per week. The practical application and implementation of these specific concepts are methodically discussed during the various class sessions by means of real-life examples and comprehensive case studies.

## COURSE CONTENT AND LEARNING OUTCOMES

All courses are certificate level and are taught according to a student centered approach. Course content listed should be regarded as indicative course content. Learning outcomes listed are reference points and should be regarded as intended learning outcomes for what students are expected to be able to do at the end of the course. Assessments done in the course should address these learning outcomes. The learning outcomes are established according to Benjamin Bloom's taxonomy for cognitive learning. Based on this framework, courses at certificate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

The overall learning of the courses at the certificate program corresponds to the level descriptors of the European Qualifications Framework (EQF) for first cycle qualification. The overall learning of the certificate programs aims at students obtaining a level according to the indications below.

The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the



framework of the Bologna process corresponds to the learning outcomes for EQF level 6.

## SETTING

- *Operational Context:* The learner operates in complex and unpredictable contexts, requiring selection and application from a wide range of largely standard techniques and information sources.
- *Autonomy and responsibility for actions:* The learner acts with minimal supervision or direction, within agreed guidelines taking responsibility for accessing support and accepts accountability for determining and achieving personal and/or group outcomes.

### **CHARACTERISTIC 1: KNOWLEDGE AND UNDERSTANDING**

- Demonstrate and/or work with:
- An understanding of the scope and defining features of a subject/discipline/sector, and an integrated knowledge of its main areas and boundaries.
- A critical understanding of a range of the principles, principal theories, concepts and terminology of the subject/discipline/sector.
- Knowledge of one or more specialisms that is informed by forefront developments.

### **CHARACTERISTIC 2: PRACTICE: APPLIED KNOWLEDGE, SKILLS AND UNDERSTANDING**

- Apply knowledge, skills and understanding:
- In using a range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector.
- In using a few skills, techniques, practices and/or materials that are specialised and/or advanced.
- In practising routine methods of enquiry and/or research.
- To practise in a range of professional level contexts that include a degree of unpredictability.

### **CHARACTERISTIC 3: GENERIC COGNITIVE SKILLS**

- Undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues in a subject/discipline/sector.
- Identify and analyse routine professional problems and issues.
- Draw on a range of sources in making judgements.

### **CHARACTERISTIC 4: COMMUNICATION, ICT AND NUMERACY SKILLS**

- Use a wide range of routine skills and some advanced and specialised skills in support of established practices in a subject/discipline/sector, for example:
- Present or convey, formally and informally, information on standard/mainstream topics in the subject/discipline/sector to a range of audiences.
- Use a range of ICT applications to support and enhance work.
- Interpret, use and evaluate numerical and graphical data to achieve goals/targets.

### **CHARACTERISTIC 5: AUTONOMY, ACCOUNTABILITY AND WORKING WITH OTHERS**

- Exercise autonomy and initiative in some activities at a professional level in practice or in a subject/discipline/sector.
- Exercise managerial responsibility for the work of others and for a range of resources.
- Practise in ways that show awareness of your own and others' roles and responsibilities.
- Work, under guidance, with specialist practitioners.
- Seeking guidance where appropriate, manage ethical and professional issues in accordance with current professional and/or ethical codes or practices.

## COURSE EVALUATION

<b>Course evaluation: Study Load per 10 ECTS course</b>	<b>Total 276.5 hrs.</b>
- Lectures: one and a half hours per week for (13 weeks)	19.5 hours
- Self-directed content learning & preparation: 9 hours per week (13 weeks)	117 hours
- Specific assignments: 3 x 3-hour assignments	9 hours
- Formative Assessments/Research assignments	4 hours
- Course Preparation and Discussion Forums: 2.5 hours per day for 10 Weeks	125 hours
- Summative Assessments	2 hours

<b>Course evaluation: Study Load per 5 ECTS course</b>	<b>Total 162.5 hrs.</b>
- Lectures: one and a half hours per week for (13 weeks)	19.5 hours
- Self-directed content learning & preparation: 9 hours per week (13 weeks)	78 hours
- Specific assignments: 3 x 3-hour assignments	9 hours
- Research assignments for Module	4 hours
- Course Preparation and Discussion Forums 2.5 hours per day for 10 Weeks	50 hours
- Summative Assessments	2 hours

Attendance to all class sessions and participation in all class discussions is mandatory and is part of the final grade for the course. Reading materials and discussion questions should be prepared by each student individually by the next class session. There should be graded weekly assignments. Formative assignments, where feedback is provided on the student's performance but the grade not included in the final grade, are also given throughout the course. Credits are only awarded upon successful completion of the entire course. Partial credit for partial completion of a course is not awarded.

We reserve the right to change the content of this catalog and to make changes to the academic curriculum at any time and without prior notice.

## CODE: CP109 - WOMEN AND LEADERSHIP

### COURSE DETAILS

Course level: Certificate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

The objective of this course is to identify and demonstrate the nature and importance of female leadership. This course will start with discussions on various leadership theories as well as the leadership development, success of female leaders and what it means when a leader needs to be a good follower. This class will host 5 female guest speakers coming from various leadership backgrounds. The students will explore the character, personal attributes, and behaviours of effective female leaders.

### COURSE OBJECTIVES

- To identify and demonstrate your understanding of the nature and importance of female leadership.
- To identify and discuss the importance of leadership theories.
- To discuss leadership development, succession of female leaders, why a leader needs to be a good follower.
- To identify and discuss the pitfalls leaders face, including team dynamics.
- To understand cross-cultural leadership differences.
- To explain the need for a leader to serve the role of a coach and a mentor for impacting global change.
- To discuss exchange-based relationships that reward followers.
- To acknowledge the importance and characteristics of leadership in small business, entrepreneurship, and governance
- To recognize the effects of charisma on motivating employees.

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

1. Define the term leadership with specific examples of different leadership styles with the focus in female leadership.
2. Understand the importance of divergent strategic leadership approaches
  - Analyse the leadership environment in the Trait Approach, through different personality traits and characteristics that are linked to successful female leadership.
  - Identify and classify the Skill Approach that focuses on certain abilities, knowledge, and skills of the leader.
  - Create real life cases with using the Behavioural and Situational approach in the business environment for women.
3. Describe the various elements of women in Society & Business; Explain the phenomena of
  - The Glass Ceiling
  - The Glass Cliff
  - The Glass Escalator
4. Recognize the importance of Authentic & Servant Leadership, the historical background, and the model of the used leadership in today's business environment, with a focus on the female perspective.
5. Select, analyse, and define female communication styles and the differences between female and male communication.
6. Develop a strategic plan or strategy for personal improvement in leadership skills and self-reflection on leadership practice.
7. Evaluate/analyse various female leaders throughout the course.

Learning Outcomes:  On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	<b>Knowledge and understanding</b> of the leadership role and basic terminology.	Yes	X			

L2	<b>Practice applied knowledge</b> , use of techniques for improvement of personal leadership practice	Yes		x	x	
L3	<b>Generic cognitive skills:</b> being able to apply the divergent leadership approaches	Yes	x		x	
L4	<b>Communication:</b> present and convey information related to leadership concepts and apply them to real-world examples.	Yes	x	x		
L5	Autonomy and teamwork: exercise autonomy and initiative in some activities at a professional level and working with peers.	Yes			x	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- LEADERSHIP- Theory and Practice. 7th Edition. By Peter G. Northouse. Sage

# CODE: CP309 - BUSINESS & SUSTAINABILITY

## COURSE DETAILS

Course level: certificate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The essence of the course is to learn the basic concepts and principles in relation to Sustainability Science and how this relates to business. On the one hand, environmental aspects such as water, climate, waste, energy, agriculture and biodiversity will be touched upon. The course then explores how environmental problems are closely related to social aspects. Lastly, different approaches and tools that companies can use to integrate corporate sustainability in their business practices, such a Circular Economy principles and Design Thinking, will be discussed.

## COURSE OBJECTIVES

1. Understand the basic concept of Sustainable Development, the environmental, social and economic dimensions
2. Understand the history of Sustainable Development
3. Explore the people-planet-profit concepts and how they apply to various real-life sustainability challenges
4. Problematize the role of business in society and explain the business case for sustainability
5. Discuss approaches, methods and tools available to companies to contribute to sustainability
6. Analyze and evaluate how different corporate sustainability initiatives are implemented by companies to become more sustainable

## LEARNING OUTCOMES

After taking the course of Business & Sustainability students should be able to:

1. Give a clear overview of the concept of sustainable development, its history and complexity, and give examples of various ways to operationalize it
2. Understand that achieving sustainability solutions needs contributions from different perspectives, stakeholders and worldviews.
3. Understand the Sustainable Development challenge for companies, their responsibility and their potentials for action
4. Understand the role of the circular economy within sustainability

5. Identify approaches, methods and tools available to companies to contribute to sustainability
6. Analyze and evaluate how different corporate sustainability initiatives are implemented by companies to become more sustainable

<b>Learning Outcomes:</b>  On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Give a clear overview of the concept of sustainable development, its history and complexity, and give examples of various ways to operationalize it	YES	X			
L2	Understand that achieving sustainability solutions needs contributions from different perspectives, stakeholders and worldviews.	YES	X	X		
L3	Understand the Sustainable Development challenge for companies, their responsibility and their potentials for action	YES	X			
L4	Understand the role of the circular economy within sustainability	YES	X			
L5	Identify and discuss approaches, methods and tools available to companies to contribute to sustainability	YES			X	X
L6	Analyze and evaluate how different corporate sustainability initiatives are implemented by companies to become more sustainable	YES		X	X	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

TBD

# CODE: CP104 - INTRODUCTION TO PYTHON

## COURSE DETAILS

Course level: certificate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Students will review Python with this introductory course and familiarize themselves with programming. Carefully crafted by EBU, upon completion of this course students will be able to write Python scripts, perform fundamental hands-on data analysis using the Jupyter- based lab environment, and create their own projects.

### Learning Objectives:

- Write a Python program by implementing concepts of variables, strings, functions, loops, conditions
- Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes

## CONTENT

Lesson 1 - Python Basics

Lesson 2 - Python Data Structures

Lesson 3 - Python Programming Fundamentals

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Write a Python program by implementing concepts of variables, strings, functions, loops, conditions	YES	x	x	x	x
L2	Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes	YES	x	x	x	x

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments



**Forum:** 5% Mandatory  
**Midterm Exam:** ≥ 40% (Recommendation 30%)  
**Final Exam:** 30-40%. (Recommendation 40%)  
**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

Bibliography: TBD

# CODE: CP108 - PLUTUS/HASKELL I

Course level: Certificate

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	PRIOR PROGRAMMING EXPERIENCE IS RECOMMENDED, eg PYTHON, JAVA, C++
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Students will develop their functional programming skills in the languages Haskell and Plutus. This will help make them competent smart contract programmers; adept at changing the world through the creation of new systems and decentralised applications in the Cardano Ecosystem. The course opens a door of opportunity to work in the early development of Cardano; the fastest growing Cryptocurrency. Which aims to bank the unbanked and create new financial systems for emerging world markets.

The course will teach you the core principles of how to code in both Haskell and Plutus. Modules will cover the building blocks of Haskell and Plutus, including functions and data types, type classes, monads, template Haskell, using the Plutus Playground, The Marlowe Playground, the Extended UTXO model, working with Plutus on and off the chain, minting policies, state machines, the Plutus application framework, as well as case studies and practical exercises.

Prerequisites: While you do not need to be an expert in formal methods, programming experience and a general aptitude for logical and mathematical thinking are highly desirable.

## COURSE OBJECTIVES

To gain an understanding of functional programming in Plutus.

To understand the transformative power of blockchain technology

To develop competent smart contract developers

## COURSE OUTCOMES

Theoretical introduction to Cryptocurrency, Blockchain, and Cardano.

Develop an understanding of the invention of decentralized consensus through proof-of-work, and the difference between proof-of-work and proof-of-stake.

Technical overview of Functional Programming Haskell and Plutus.

Practical introduction to functions and data types, type classes, monads, template Haskell, using the Plutus Playground, The Marlowe Playground, the Extended UTXO model, working with Plutus on and off the chain, minting policies, state machines, the Plutus application framework in case studies and practical exercises.

# CODE: CP306 - FUNDAMENTALS OF BLOCKCHAIN TECHNOLOGIES

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The goal of this course is to empower students on how to work within and competently understand the changes occurring in Fintech. This course will allow students to effectively learn the use of digital cryptocurrencies. In this course, the student will develop an appreciation and understanding of how to apply their knowledge as a technical and operational skill to enable and impact business and economic spheres through a total grasp of the interoperability that has driven the interest and adoption of cryptocurrencies in business and government.

## COURSE OBJECTIVES

In learning about the disruptive force of Fintech, students will apply themselves in a project-based approach to learning that builds upon a foundational understanding of the Blockchain. They will apply this learning to real-world challenges and questions in order to fully understand the benefits, limits and disruptive force of the Blockchain.

## LEARNING CONTENT AND OUTCOMES

When the course is complete students be able to:

- Competently engage in digital currency purchases
- Understand the implications of the blockchain in finance
- Engage employers in the beneficial cost efficiencies of the blockchain
- Adopt the crypto technology to a bespoke corporate requirement

## Unit 1: Overview of the technology

- Basic technical description of blockchain technology
- History and achievements

## Unit 2: Cryptographic hashes

- Item Definition
- SHA 256/DSHA256/SHA3
- Encryption
- Digital signatures

## Unit 3: How Bitcoin works

- Blockchain structure
- Distributed consensus

## Unit 4: Bitcoin ecosystem

- Hard soft forks
- Wallets hot/cold
- Exchanges
- Mining

## Unit 5: Beyond Bitcoin

- Decentralization
- Private blockchains
- Altcoins
- Smart contracts

## Unit 6: Digital currency challenges

- Scalability
- Identity
- Proposed solutions

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Competently engage in mock digital currency purchases	YES	X	X	X	X
L2	Understand the implications of the blockchain in finance	NO	X	X	X	X
L3	Engage employers in the beneficial cost efficiencies of the blockchain	NO	X	X	X	X

L4	Adopt the cryptotechnology to a bespoke corporate requirement	YES	X	X	X	X
----	---	-----	---	---	---	---

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

Bibliography: Bitcoin and Cryptocurrency Technologies" by Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller and Steven Goldfeder

## CODE: CP307 - MOBILE APPLICATION DEVELOPMENT

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	Prior Programming Experience is Recommended eg. Python, Java, C++ CP108 PLUTUS/HASKELL (recommended)
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course is concerned with the development of applications on mobile and wireless computing platforms. Android will be used as a basis for teaching programming techniques and design patterns related to the development of standalone applications and mobile portals to enterprise and commerce systems.

Emphasis is placed on the processes, tools and frameworks required to develop applications for current and emerging mobile computing devices. Students will work at all stages of the software development life-cycle from inception through to implementation and testing. In doing so, students will be required to consider the impact of user characteristics, device capabilities, networking infrastructure and deployment environment, in order to develop software capable of meeting the requirements of stakeholders. Upon completion, students should be able to create basic applications for mobile devices.

### COURSE OBJECTIVES

1. To facilitate students to understand android SDK
2. To help students to gain a basic understanding of Android application development
3. To inculcate working knowledge of Android Studio development tool

### LEARNING CONTENT AND OUTCOMES

At the end of this course, students will be able to:

1. Identify various concepts of mobile programming that make it unique from programming for other platforms,
2. Critique mobile applications on their design pros and cons,
3. Utilize rapid prototyping techniques to design and develop sophisticated mobile interfaces,
4. Program mobile applications for the Android operating system that use basic and advanced phone features, and

5. Deploy applications to the Android marketplace for distribution.

## OUTLINE OF INSTRUCTION

1. Introduction
  - a. Introduction to Mobile Computing
  - b. Introduction to the Android Development Environment
2. Factors in Developing Mobile Applications
  - a. Mobile Software Engineering
  - b. Frameworks and Tools
  - c. Generic UI Development
  - d. Android User
3. More on UIs
  - a. VUIs and Mobile Apps
  - b. Text-to-Speech Techniques
  - c. Designing the Right UI
  - d. Multichannel and Multimodal UIs
4. Intents and Services
  - a. Android Intents and Services
  - b. Characteristics of Mobile Applications
  - c. Successful Mobile Development
5. Storing and Retrieving Data
  - a. Synchronization and Replication of Mobile Data
  - b. Getting the Model Right
  - c. Android Storing and Retrieving Data
  - d. Working with a Content Provider
6. Communications Via Network and the Web
  - a. State Machine
  - b. Correct Communications Model
  - c. Android Networking and Web
7. Telephony
  - a. Deciding Scope of an App
  - b. Wireless Connectivity and Mobile Apps
  - c. Android Telephony
8. Notifications and Alarms
  - a. Performance
  - b. Performance and Memory Management
  - c. Android Notifications and Alarms
9. Graphics

- a. Performance and Multithreading
- b. Graphics and UI Performance
- c. Android Graphics and

#### 10. Multimedia

- a. Mobile Agents and Peer-to-Peer Architecture
- b. Android Multimedia

#### 11. Location

- a. Mobility and Location Based Services
- b. Android

#### 12. Putting It All Together (as time allows)

- a. Packaging and Deploying
- b. Performance Best Practices
- c. Android Field Service App

#### 13. Security and Hacking (as time allows)

- a. Active Transactions
- b. More on Security
- c. Hacking Android

#### 14. Platforms and Additional Issues (as time allows)

- a. Development Process
- b. Architecture, Design, Technology Selection
- c. Mobile App Development Hurdles
- d. Testing

### **Assessments.**

55% - Classwork (review questions, homework, essay, and other related activities) 5% - Merits  
40% - Final Exam

### **REFERENCE BOOKS:**

Lauren Darcey and Shane Conder, "Android Wireless Application Development", Pearson Education, 2nd ed. (2011)

Reto Meier, "Professional Android 2 Application Development", Wiley India Pvt Ltd 2.

Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd 3.

Android Application Development All in one for Dummies by Barry Burd, Edition: I



## CODE: CPF100 GESTION D'ENTREPRISE

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### APERÇU DU COURS

Ce cours propose un tour d'horizon du monde de l'entreprise. Les sujets incluent les principes et pratiques de base des affaires contemporaines. À la fin, les étudiants doivent être en mesure de démontrer une compréhension des concepts commerciaux comme base pour étudier d'autres sujets commerciaux. Le cours couvre les sujets suivants : L'environnement des affaires ; Propriété d'entreprise et entrepreneuriat ; Gestion et Organisation ; Ressources humaines; Commercialisation; Finances et Investissement.

### OBJECTIFS DU COURS

1. Identifier et décrire l'influence des environnements créés par l'économie, la technologie, la concurrence, la diversité, les opportunités mondiales et la responsabilité sociale.
2. Comparer les avantages et les inconvénients des principales formes de propriété d'entreprise et discuter des raisons pour lesquelles de nombreuses personnes sont prêtes à accepter les risques de l'entrepreneuriat.
3. Comprendre le besoin de gestion dans les organisations commerciales, le rôle de la direction dans le développement d'une structure organisationnelle et le processus de production de produits et de services qui satisfont les clients.
4. Décrire le rôle de gestion consistant à acquérir et à conserver des ressources humaines et à créer un environnement de travail favorable.
5. Expliquer la fonction marketing et décrire les concepts et les processus impliqués dans la conception de la stratégie produit, de la stratégie de promotion, de la stratégie de distribution et de la stratégie de prix.
6. Explorer les façons d'utiliser la technologie pour gérer l'information et comprendre le rôle de la comptabilité dans la gestion de l'information financière.
7. Décrire la fonction de gestion financière et le rôle des institutions monétaires et financières et illustrer les concepts et les processus impliqués dans la gestion de l'acquisition et de l'allocation de fonds à court et à long terme.

## CONTENU ET RÉSULTATS D'APPRENTISSAGE

A l'issue du cours l'étudiant sera capable de :

1. Identifier les opportunités de marketing potentielles créées par les tendances démographiques ; Raconter comment les institutions commerciales fonctionnent dans notre environnement politique, social et économique moderne ;
2. Décrire diverses formes de propriété d'entreprise ;
3. Acquérir des informations sur le démarrage de votre propre entreprise ;
4. Expliquer les fonctions de gestion ;
5. Acquérir un vocabulaire pour une étude plus approfondie des sujets d'affaires;
6. Décrire l'importance des activités de marketing ;
7. Expliquer les défis auxquels est confrontée la direction ;
8. Identifier les techniques de base de planification financière à court et à long terme ;
9. Décrire comment les organisations se protègent contre les pertes potentielles ; 10. Identifier et appliquer les lois commerciales dans la mesure où elles affectent les affaires ;
11. Discutez du commerce et des marchés internationaux.

## CODE: HSP100 - FRONT OFFICE OPERATIONS

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and account settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations and to human resources management. Front office procedures and management are placed within the context of the overall operation of a hotel. This course is designed to familiarize the student with the rooms division of the hotel. Emphasis will be placed on various front office functions: forecasting, reservation procession and guest registration, night audit and check-out procedure. The student will further be instructed in all aspects of the unique relationship between the front office and the other departments of the hotel. New case studies and the most current real-world examples will help the student to understand: the role of each staff member in maintaining quality service, the strategy to keep the front office profitable, the guest safety and key control guidelines that must be part of daily procedures and the impact of the latest technology. The course covers how to understand, organize, perform, and evaluate all of the front office functions so critical to the success of a hotel. Includes automation and computer applications throughout all aspects of the guest cycle and covers: maximize profits in establishing room rates, forecasting room availability, budgeting and using yield management techniques; handle all phases of personnel including recruiting, selecting, hiring, orienting, training, scheduling and motivating; work effectively with today's multicultural labor force; increase revenues by incorporating sales techniques into the reservations process.

### COURSE OBJECTIVES

In learning about the disruptive force of Fintech, students will apply themselves in a project-based approach to learning that builds upon a foundational understanding of the Blockchain. They will

apply this learning to real-world challenges and questions in order to fully understand the benefits, limits and disruptive force of the Blockchain.

## **LEARNING CONTENT AND OUTCOMES**

On completion of these modules the successful student is expected to:

### **KNOWLEDGE**

- Classify hotels in terms of their ownership, affiliation, and levels of service.
- Describe how hotels are organized and explain how functional areas within hotels are classified.
- Summarize front office operations during the four stages of the guest cycle.
- Discuss the sales dimension of the reservations process and identify the tools managers use to track and control reservations.
- List the seven steps of the registration process and discuss creative registration options.
- Identify typical service requests that guests make at the front desk.
- Explain important issues in developing and managing a security program.
- Describe the process of creating and maintaining front office accounts.
- Identify functions and procedures related to the check-out and account settlement process.
- Discuss typical cleaning responsibilities of the housekeeping department.
- Summarize the steps in the front office audit process.
- Apply the ratios and formulas managers use to forecast room availability.
- Explain the concept of revenue management and discuss how managers can maximize revenue by using forecast information in capacity management, discount allocation, and duration control.
- Identify the steps in effective hiring and orientation.

### **SKILLS**

- Interpersonal communication
- Organization theory and behavior

### **ABILITIES**

- Teamwork

### **ATTITUDES**

- Cultural sensibility
- Ethical consideration
- Commitment to industry excellence
- Abilities for customer service environment

## **SYLLABUS CONTENT**

The lodging industry• hotel organization• front office operations• reservations• registration• communications and guest service• security and the lodging industry• front office accounting• check-out and account settlement• the role of housekeeping in hospitality operations• the front office audit• planning and evaluating operations• revenue management• managing human resources

## **LEARNING, TEACHING & ASSESSMENT METHODS**

Traditional lecturing of main concepts and methodologies will be employed. In addition, a variety of methods will be used to deliver content and reach the learning objectives of this module. These include in class discussions, case studies, discussion about real-world problems.

- Workshop Assignment + Companion Materials: Videos and In Basket
- Front Office Quality Service Skills
- Performance Training for Front Desk Employees
- Case studies in Front Office Management

- Going The Extra Mile: Service Skills for Front Desk Employee

## Chapter 1

- The Hospitality Industry - Defining the Term Hotel - Classifying Hotels – Size - Target Markets - Commercial Hotels -Airport Hotels - Suite Hotels - Extended Star Hotels - Residential Hotels - Resort Hotels - Bed and Breakfast Hotels -Vacation Ownership and Condominium Hotels - CasinoHotels - Conference Centres - Convention Hotels -Alternative Lodging Properties - Levels of Service - The Intangibility of Service - Quality Assurance - Rating Services -World-Class Service - Mid-Range Service - Economy /Limited Service - Ownership and Affiliation - Independent Hotels - Chain Hotels -Reasons for Travelling - Business Travel - Pleasure Travel - Group Travel - Buying Influences-Multicultural Awareness - Case Studies

## Chapter 2

- Organizational Missions – Goals - Strategies and Tactics - Hotel Organization - Organization Charts Classifying -Functional Areas - Rooms Division - Food and Beverage Division - Sales and Marketing Division - Accounting Division - Engineering and Maintenance - Security Division - Human Resources Division - Other Divisions - Front Office Operations - Organization - Work shifts - Job Descriptions - Job Specifications - Case Study - Appendix:
- Model Job Descriptions

## Chapter 3

- The Guest Cycle - Pre-Arrival - Arrival – Occupancy – Departure - Front Office Systems - Non-Automated - Semi-Automated - Property Management Systems - Front Office Process - Pre-Arrival – Arrival – Occupancy – Departure The Front Desk - Functional Organization - Design Alternatives - Telecommunications - Telecommunications Equipment - Property Management Systems - Reservations Management Software - Rooms Management Software
- Guest Account Management Software - General Management Software - Back Office Interfaces System Interfaces - Case Studies

## Chapter 4

- Reservations and Sales - Types of Reservations - Guaranteed Reservations - Non-Guaranteed Reservations Reservation Inquiry - The Seven Step Reservation – Sales Process - Central Reservation Systems - Global Distribution Systems - Intersell Agencies - Property Direct - Reservations through the Internet - Group Reservations - Reservation Availability - Reservation Systems - The Reservation Record - Reservation Confirmation - Confirmation/ Cancellation Numbers - Reservation Maintenance - Modifying Non-Guaranteed – Reservations - Reservation Cancellation Reservation Reports - Expected Arrival and Departure Lists - Processing Deposits - Reservations Histories -Reservation Considerations
- Legal Implications - Waiting Lists – Packages - Potential Reservation Problems - Case Study

## Chapter 5

- Pre-registration Activity - The Registration Record - Room and Rate Assignment - Room Status - Room Rates - Room Locations - Future Blocks - Method of Payment – Cash - Personal Checks - Credit Cards - Direct Billing - Special Programs and Groups - Denying a Credit Request - Issuing the Room Key - Fulfilling Special Requests - Creative Options - Self- Registration - Selling the Guestroom - When Guests Cannot Be Accommodated - Walk-In Guests Guest with Non-Guaranteed Reservations - Guests with Guaranteed Reservations -Case Study

## Chapter 6

- Front Office Communications - Guest Communications - Log Book - Information Directory - Mail and Package Handling - Telephone Services - Interdepartmental Communications -

Housekeeping - Engineering and Maintenance - Revenue Centres - Marketing and Public Relations - Guest Services Equipment and Supplies Special Procedures - Guest Relations – Complaints - Identifying Complaints - Handling Complaints Follow-Up Procedures - Case Study

## Chapter 7

- A Growing Concern - Developing the Security Programme - Doors, Locks, Key Control, and Access Control Guestroom Security - Control of Persons on Premises - Perimeter and Grounds Control - Protection of Assets Emergency Procedures - Communication - Security
- Records - Staff Security Procedures - Management's Role in Security - The Need for Effective Management - Areas of Vulnerability - Security Requirements - Setting Up the Security Program - The Importance of Law Enforcement Liaison - Security Staffing - The Elements of Security Training Who is Responsible? The Authority of a Security Officer - The Team Concept - Security and the Law - Legal Definitions - Case Study

## Chapter 8

- Accounting Fundamentals – Accounts – Folios – Vouchers - Points of Sale – Ledgers - Creation and Maintenance of Accounts - Recordkeeping Systems - Charge Privileges - Credit Monitoring - Account Maintenance - Tracking Transactions - Cash Payment - Charge Purchase - Account Correction - Account Allowance - Account Transfer Cash Advance -
- Internal Control - Cash Banks - Audit Controls - Settlement of Accounts - Case Study

## Chapter 9

- Check-Out and Account Settlement - Department Procedures - Methods of Settlement - Late Check-Out - Check-Out Options - Express Check-Out - Self Check-Out - Unpaid Account Balances - Account Collection Account Aging - Front Office Records - Guest Histories -
- Marketing Follow-Through

## Chapter 10

- Communicating Room Status - Housekeeping and Maintenance - Communicating Maintenance Work - Types of Maintenance – Teamwork - Identifying Housekeeping' s Responsibilities - Planning the Work of the Housekeeping Department - Area Inventory Lists
- Frequency Schedules - Performance Standards - Productivity Standards Equipment and Supply - Inventory Levels - Supervisor Dilemma

## Chapter 11

- The Front Office Audit - Functions of the Front Office Audit - The Role of the Front Office Auditor - Establishing an End of Day - Cross- Referencing - Account Integrity - Guest Credit Monitoring - Audit Posting Formula - Daily and Supplemental Transcripts - Front Office Audit - The Front Office Audit Process - Complete Outstanding Postings Reconcile Room Status Discrepancies - Balance All Departmental Accounts Verify Room Rates - Verify No- Show Reservations - Post Room Rates and Taxes - Prepare Reports - Deposit Cash - Clear or Back Up the System - Distribute Reports - System Update - Case Study

## Chapter 12

- Management Functions – Planning – Organizing – Coordinating – Staffing – Leading – Controlling Evaluating Establishing Room Rates - Market Condition Approach - Rule-of-Thumb Approach - Hubbart Formula Approach Planned Rate Changes - Forecasting Room Availability - Forecasting Data - Forecast Formula - Sample Forecast Forms - Budgeting for Operations - Forecasting Rooms Revenue - Estimating Expenses - Refining Budget Plans Evaluating Front Office Operations - Daily Operations Report - Occupancy Ratios - Rooms Revenue Analysis - Hotel Income Statement - Rooms Division Income Statement - Rooms Division Budget Reports - Operating Ratios - Ratio Standards - Case Study

## Chapter 13

- Revenue Management - The Concept of Revenue Management - Hotel Industry

- Applications
- Measuring Yield -Formula 1: Potential Average Single Rate - Formula 2: Potential Average Double Rate - Formula 3: Multiple Occupancy Percentage - Formula 4: Rate Spread - Formula 5: Potential Average Rate - Formula 6: Room Rate Achievement Factor - Formula 7: Yield Statistic - Formula 8: Equivalent Occupancy - Formula 9: Required Non-Room Revenue per Guest - Elements of Revenue Management - Group Room Sales - Transient Room Sales - Food and Beverage Activity Local and Area-Wide Activities - Special Events - Fair Market Share Forecasting - Using Revenue Management - The Revenue Meeting - Potential High and Low Demand Tactics - Implementing Revenue Strategies- Hurdle Rates -
- Minimum Length of Stay - Close to Arrival – Sell Through - Revenue Management Software

## Chapter 14

- Recruiting - Internal Recruiting - External Recruiting – Selecting - Selection Tools - Evaluating Applicants- Interviewing – Hiring - Job Offers - Processing Personnel Records – Orienting - Skills Training - Prepare to Train - Present the Training - Practice Skills - Follow Up - Staff Scheduling - Alternative Scheduling Techniques - Staff Motivation – Training- Cross-Training – Recognition- Communication - Incentive Programs - Performance Appraisals - Case Study

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	<ul style="list-style-type: none"> <li>Classify hotels in terms of their ownership, affiliation, and levels of service.</li> <li>Describe how hotels are organized and explain how functional areas within hotels are classified.</li> </ul>	YES	X	X	X	X
L2	<ul style="list-style-type: none"> <li>Explain important issues in developing and managing a security program.</li> <li>Describe the process of creating and maintaining front office accounts.</li> <li>Interpersonal communication</li> <li>Organization theory and behavior</li> </ul>	YES	X	X	X	X
L3	<ul style="list-style-type: none"> <li>Discuss typical cleaning responsibilities of the housekeeping department.</li> <li>Summarize the steps in the front office audit process.</li> <li>Teamwork</li> </ul>	YES	X	X	X	X
L4	<ul style="list-style-type: none"> <li>Cultural sensibility</li> <li>Ethical consideration</li> <li>Commitment to industry excellence</li> <li>Abilities for customer service environment</li> </ul>	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## ASSESSMENT SCHEME

End of term evaluation and continuous assessment.

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

### **1. ESSENTIAL**

- Managing Front Office Operations, Seventh Edition, by Michael L. Kasavana, Ph.D., and Richard M

### **2. RECOMMENDED**

- Effective Revenue Management Strategies – Competitive Edge
- Accommodation Management – Jones & Paul
- Principles of Front Office Operations – Baker & Bradley
- Guest craft Front of House Operations – Ann Thurnhurst

### **3. INTERNET SITES**

- [www.trivago.com](http://www.trivago.com)
- [www.visitbrussels.be](http://www.visitbrussels.be)
- [www.ih-ra.com](http://www.ih-ra.com)
- [www.hotrec.eu](http://www.hotrec.eu)

## **CODE: HSP101 FOOD AND BEVERAGE SUPERVISION**

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours:

Total exam hours:

Total study hours:

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A



Prohibited Combinations	N/A
-------------------------	-----

## COURSE OVERVIEW

The Comprehensive Food and Beverage Supervision Course for Hospitality Professionals is an immersive program meticulously crafted to address the nuanced challenges faced by individuals operating within the dynamic landscape of the hospitality industry. Tailored to meet the specific demands of food and beverage management, this course integrates theoretical knowledge with practical insights, offering a holistic approach to leadership and operational excellence.

The course is set to cover 12 modules, with the last module being a practical approach and case studies.

### Course Modules:

**1. Leadership Dynamics in Hospitality (Module 1):** Delve into the intricacies of effective leadership within the hospitality context. Understand motivational theories, team dynamics, and communication strategies, fostering the development of strong, cohesive teams.

**2. Strategic Menu Planning and Cost Control (Module 2):** Uncover the secrets behind menu engineering, pricing strategies, and cost control mechanisms. Participants will learn to create menus that balance customer satisfaction and financial viability.

**3. Excellence in Customer Service (Module 3):** Explore the art of delivering unparalleled customer service experiences. The module covers customer expectations, complaint resolution strategies, and methods to create memorable dining encounters.

**4. Operations Management in F&B (Module 4):** Gain insights into the day-to-day intricacies of managing F&B operations. Topics include staff management, scheduling, inventory control, and quality assurance measures for seamless operational efficiency.

**5. Food Safety and Hygiene Standards (Module 5):** Emphasizing the paramount importance of food safety, this module covers HACCP principles, sanitation practices, and compliance with health regulations, ensuring participants are well-versed in maintaining impeccable hygiene standards.

**6. Beverage Management Strategies (Module 6):** Dive into the world of beverages, covering alcoholic and non-alcoholic options. This module explores inventory management, sourcing, and the art of suggestive selling to enhance overall beverage services.

**7. Exploring Industry Trends and Innovations (Module 7):** Stay ahead of the curve by examining current trends and innovations within the food and beverage sector. Discussions

include the integration of technology, sustainable practices, and adapting to evolving consumer preferences.

**8. Practical Application and Case Studies (Module 8):** Apply acquired knowledge through hands-on exercises, real-world case studies, and simulated scenarios. Develop critical thinking, problem-solving skills, and decision-making capabilities in a controlled, supportive learning environment.

**Target Audience:**

- Aspiring and current food and beverage supervisors
- Hospitality professionals seeking career advancement
- Restaurant Supervisors, catering managers, and event planners
- Individuals keen on enhancing their leadership skills within the food service industry

**Outcome:**

Learners will emerge with a comprehensive skill set and a profound understanding of food and beverage supervision within the context of the hospitality industry. Equipped with practical skills and industry-specific knowledge, participants will be well-prepared to navigate the multifaceted challenges of managing food and beverage operations successfully, ensuring both customer satisfaction and business profitability in this competitive industry.

**Assessments.**

**Forum** 5% Mandatory

**Midterm Exam:** ➤ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

**BIBLIOGRAPHY**

TBA

**CODE: GWTL100 - BUSINESS NEGOTIATIONS**

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)  
 Total exam hours: 2  
 Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)  
 Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Negotiation is a critical skill in both personal and professional contexts, and this course will provide learners with the tools and techniques to negotiate effectively and achieve favorable outcomes.

Covered topics are fundamentals of negotiations, understanding different negotiation styles, developing effective communication skills, managing emotions during negotiations, building relationships, and creating win-win solutions.

## COURSE OBJECTIVES

This course is designed to equip students with skills and strategies needed to excel in various negotiation scenarios.

## LEARNING CONTENT AND OUTCOMES

After successful completion of this course, students will be able to:

1. Understand the fundamentals of negotiation, including key concepts and principles.
2. Understand the main approaches in the negotiation.
3. Understand how to prepare for negotiations.
4. Understand how to undertake commercial negotiations and apply negotiation strategies such as bargaining tactics, dealing with difficult negotiators and creating win-win scenarios.
5. Understand the legal issues that relate to the formation of contracts and recognize the use of legal terms that should regulate commercial agreements.
6. Understand negotiations ethics, including dealing with conflict and maintaining professionalism

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the <b>fundamentals of negotiation</b> , including key concepts and principles		X	X		
L2	Understand the <b>main approaches</b> in the negotiation and apply <b>negotiation strategies</b>		X	X	X	

L3	Understand how to <b>prepare</b> for negotiations		X			
L4	Understand the <b>legal issues, recognize and explain the legal terms</b> that should regulate commercial agreements		X			X
L5	Understand <b>negotiations ethics</b> , including dealing with conflict and maintaining professionalism		X		X	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

### Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY

TBA

# CODE: GWTL101 - AGILE SOFTWARE METHODOLOGIES

Course level: Certificate

Course category: Specialization

Course duration: 11 weeks

Total contact hours: 20 (20hrs Lectures)

Total exam hours: 3

Total study hours: 80 (39hrs self-directed + 25hrs Specific assignments + 16hrs Research)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

In Institute few of us are thought about what successful product development is. This course will teach you about the process that a development team adopts in order to transform code into a successful product ready to be customer delivered.

## COURSE OBJECTIVES

This course is designed to enable students to acquire the necessary skills and strategies to create software in an agile manner using development principles, practices, methodologies and help them become proficient in delivering high-quality software. Also, the ability to work collaboratively in cross- functional teams, understand the roles and responsibilities of each team member, together with effectively communicate project progress.

## LEARNING CONTENT AND OUTCOMES

After successful completion of this course, students will be able to:

1. Understand the fundamentals of software development processes.
2. Have knowledge about the most used development frameworks and methodologies.
3. Understand modeling languages – UML
4. Understand how modern software testing is performed and principles behind it.
5. Understand Agile methodology, how Agility is implemented and what are the values, principles and mindset behind it.
6. Understand what Scrum framework is, what are the roles, responsibilities, values, artifacts and basic terminology.
7. Understand what the events in Scrum are and how software estimations are done.
8. Understand how visibility and transparency is assured in Scrum, using Inspection and adaptation. Learn about key performance indicators (KPI), objectives key results (OKR) and about tools that can boost productivity.
9. Understand what a product is and how product vision is born.
10. AI, how to integrate AI in your workflow. The good, the bad and the ugly of ChatGPT.
11. Understand how most common agile development practices work and in what context they are

applied. What scaled agile frameworks are and have a taste of another commonly used framework – kanban.

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the fundamentals of software development processes.	YES	X	X		
L2	Have knowledge about the most used development frameworks and methodologies.	YES	X	X	X	
L3	Understand modeling languages – UML	YES	X	X	X	X
L4	Understand how modern software testing is performed and principles behind it.	YES	X	X	X	X
L5	Understand Agile methodology, how SCRUM framework is implemented and how to work inside a development team.	NO	X	X		X
L6	Understand what Scrum framework is, what are the roles, responsibilities, values, artifacts and basic terminology.	YES	X	X	X	X
L7	Understand what the events in Scrum are and how software estimations are done.	YES	X	X	X	X
L8	Understand how visibility and transparency is assured in Scrum, using Inspection and adaptation. Learn about key performance indicators (KPI), objectives key results (OKR) and about tools that can boost productivity.	YES	X	X	X	X
L9	Understand what a product is and how product vision is born.	YES	X	X	X	X
L10	AI, how to integrate AI in your workflow. The good, the bad and the ugly of ChatGPT.	NO	X	X		X

L11	Understand how most common agile development practices work and in what context they are applied. What scaled agile frameworks are and have a taste of another commonly used framework – kanban.	NO	X	X	X	
-----	---	----	---	---	---	--

A – Knowledge and Understanding; B – Intellectual Skills; C – Practical Skills; D – Transferable Skills

### Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY

TBA

## **ENGLISH LANGUAGE COURSES**

A Certificate will be issued after completion of all the English Course modules.

### **CODE: ENGLISH A1 BEGINNERS ENGLISH COURSE**

**NB:** A certificate will not be awarded after completion of this course. A Certificate will be issued after completion of all the English Course modules.

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### **COURSE OVERVIEW**

The English For Beginners A1 course is designed for students with no prior knowledge of the language. The course will cover the core skills: grammar, vocabulary, pronunciation, listening, speaking, reading, and writing. You will learn the fundamental features of English grammar such as word forms, verb tenses and question and answer formation.

### **COURSE OBJECTIVES**

- 1) Develop students' language skills.
- 2) To help students communicate and understand simple phrases and vocabulary on common areas (very basic personal and family information, shopping, the local area and employment).
- 3) Build confidence and help students proceed to A2 level.

### **LEARNING CONTENT AND OUTCOMES**

The learner will be able to understand and use familiar words, phrases and expressions in English related to everyday situations (family, pets, shopping, home, work).

At the end of the course the student will be able to;

- 1) Introduce themselves and others
- 2) Ask and answer basic questions
- 3) Tell the time
- 4) Describe their weekly routines
- 5) Use negations



## CODE: ENGLISH A2 BASIC ENGLISH

**NB:** A certificate will not be awarded after completion of this course. A Certificate will be issued after completion of all the English Course modules.

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	English A1 Beginners English or an Equivalent
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Areas seen in Beginners English will be studied in further detail and the student will understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment).

The student will be able to describe in simple terms aspects of their background, immediate environment and matters in areas of immediate need.

## LEARNING CONTENT AND OUTCOMES

Learning content to be provided.

## CODE: ENGLISH B1 INTERMEDIATE ENGLISH

**NB:** A certificate will not be awarded after completion of this course. A Certificate will be issued after completion of all the English Course modules.

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	English A2 Basic English or an Equivalent
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The learner will be able to deal with most situations likely to arise while travelling in an area where the language is spoken. The student will be capable of producing simple connected text on topics which are familiar or of personal interest. They will be able to describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.

## LEARNING CONTENT AND OUTCOMES

Learning content to be provided.

## CODE: ENGLISH B2 UPPER-INTERMEDIATE ENGLISH

**NB:** A certificate will not be awarded after completion of this course. A Certificate will be issued after completion of all the English Course modules.

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	English B1 Intermediate English or an Equivalent
Co-requisites	N/A
Prohibited Combinations	N/A

## **COURSE OVERVIEW**

The student will understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in their field of specialisation. They will be able to interact with a degree of fluency and spontaneity that makes regular interaction with users of the target language quite possible without imposing strain on either party.

## **LEARNING CONTENT AND OUTCOMES**

Learning content to be provided.

## CODE: ENGLISH FOR BUSINESS 1: ADVANCED ENGLISH

**NB:** A certificate will not be awarded after completion of this course. A Certificate will be issued after completion of all the English Course modules.

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	English B2 Upper-Intermediate English
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

The student will understand a wide range of demanding, longer texts, and recognise implicit meaning. The student will be able to express themselves fluently and spontaneously without much obvious searching for expressions.

English for Business 1 will reinforce key language skills, grammar rules, and vocabulary with listening, speaking, reading, and writing exercises. The learner will be introduced to business topics such as meetings and presentations, telephone language, company history, and business lunches.

### LEARNING CONTENT AND OUTCOMES

Learning content to be provided.

## CODE: ENGLISH FOR BUSINESS 2: PROFICIENCY ENGLISH

A Certificate will be issued after completion of this module..

Course level: Certificate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	English for Business 1 Advanced English
Co-requisites	N/A
Prohibited Combinations	N/A

### COURSE OVERVIEW

The second part of this English for Business course summarises information from different oral and written sources, reconstructing arguments and accounts in a coherent presentation. The student will be able to express themselves spontaneously, fluently and precisely, differentiating finer shades of meaning even in more complex / business situations. Upon completion learner will receive an EBU Certificate that they could share with prospective employers and professional network.

### LEARNING CONTENT AND OUTCOMES

Learning content to be provided.

## **PROJECT MANAGEMENT**

**NB:** The Project Management Program certificate will be issued after completion of **all** 4 modules: CAPM I, CAPM II, CAPM III and CAPM IV.

### **SPECIALIZATION COURSE**

## **CODE: CP105 - PROJECT MANAGEMENT CAPM I**

### **COURSE DETAILS**

Course level:	Certificate
Course category:	Specialization Course
Course credits:	10
Course duration:	13 weeks
Total contact hours:	44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours:	2
Total study hours:	230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)
Language of instruction:	English
Teacher:	Luc De Ceuster, MSc, PMP

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

### **COURSE OVERVIEW**

The Course CP105 Project Management (CAPM I) is the first course in a series of 4 during which you will be introduced into the “Art of Project Management”.

During this course module, you will learn about the projects and project management, and focus on the origin and selection of projects the definition of a project and creating the project plan.

This will include the origin of projects, how to select between projects using decision making methods and financial parameters, introducing important definition and terminology that all project managers use, providing an easy to use ten-step approach to project management to help you manage projects from definition to closing, application of different techniques.

The techniques that will be described in this section relate to the creation of the charter, developing the work breakdown structure, defining the work packages and activities, precedence diagramming methods including the critical path method, creating the project schedule or Gantt, resource allocation,

project budget and S-curve and finally the principles of risk management. A free software ProjectLibre will also be introduced that will give you the possibility to get valuable experience on how to work with a typical project management software.

## COURSE CONTENT

In the following overview, you will find the main topics that will be taught during the successive lessons.

- Defining Projects
- Origin of Projects and Project Selection
- Principles of Decision Making for Projects
- Basic Principles of Project Management
- Introducing Basic Project Management
- Managing Projects in 10 steps
- Review and Midterm Quiz
- From Idea to Project Charter
- From Charter to Project Activities
- Principles of Precedence Diagramming and Critical Path
- Gantt Chart, Resources Allocation and Problem Resolution and Creating the Project Budget
- Project Risk Management
- Course Review and Final Quiz

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Define what a project is and what Project Management is about
- Establish a Return-on-Investment Policy to evaluate and select projects
- Identify the Different Steps needed to manage Projects into successful Completion
- Apply Project Management Principles to define and plan Projects
- Create a Project Charter and a Project Plan including Requirements, Scope, Precedence Diagram, Gantt Chart, Resources Allocation and Planning, Budget, and a Risk Management Plan.

<p><b>Learning Outcomes:</b></p> <p>On successful completion of the course the candidate</p>	<p>Assessed in this module?</p>	<p>A</p>	<p>B</p>	<p>C</p>	<p>D</p>
--	---------------------------------	----------	----------	----------	----------

will be able to:						
L 1	Define what a project is and what project management is about	YES	✓			
L 2	Establish a Return-on-Investment Policy and conduct project selection	YES			✓	✓
L 3	Identify the different steps needed to manage projects into successful completion	YES			✓	✓
L 4	Apply different principles to define and plan projects	YES	✓		✓	✓
L 5	Create a Project Charter and a Project Plan including Requirements, Scope, Precedence Diagram, Gantt Chart, Resources Allocation and Planning, Budget, and a Risk Management Plan.	YES	✓		✓	✓

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Focus on Project Success, Tools and Techniques, Luc De Ceuster, 2010
- Focus on Risk Management, Manage Risks to Improve Project Success, Luc De Ceuster, 2010
- Focus on Earned Value, Earned Value Management for Successful Projects, Luc De Ceuster, 2010
- SLACK, Nigel, CHAMBERS, Stuart & JOHNSTON, Robert. Operations Management (4<sup>th</sup> edition), Prentice Hall.
- Radical Project Management, 1st Edition, Prentice Hall 2002 by Rob Thomsett; ISBN: 0-13-009486-2 (the digested version of the text is stored on the e-Learning as PMThomsett.pdf)
- Project Management, 3rd Edition, Pearson Education Limited 2003 by Harvey Maylor; ISBN: 0-273-65541-8
- Managing Projects, Prentice Hall 2002 by David Boddy, ISBN: 0272-65128-5



# CODE: CP205 - PROJECT MANAGEMENT CAPM II

## COURSE DETAILS

Course level: Certificate  
Course category: Specialization Course  
Course credits: 10  
Course duration: 13 weeks  
Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)  
Total exam hours: 2  
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)  
Language of instruction: English  
Teacher: Luc De Ceuster, MSc, PMP

Pre-requisites	CP105 – Project Management CAPM I
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The Course CP205 Project Management (CAPM II) is the second course in a series of 4 during which you will be introduced into the “Art of Project Management”.

During this course module, you will review the main topics that were introduced in the previous course module, and we will introduce more complex elements and techniques for project planning and apply all on a complete exercise.

The next step in this course is about the project management process step execution monitor and control of the project and project closing. This will also include Earned Value Management Principles.

Since the ten steps approach does not include quality management, stakeholder and communications management and procurement management, the principles of these knowledge areas will be introduced.

The final part will be dedicated to Critical Chain Project Management (CCPM) and Agile.

## COURSE CONTENT

In the following overview, you will find the main topics that will be taught during the successive

lessons.

- Review of the `Tools and Techniques for Project Planning
- Adding Uncertainty to Duration and Cost Estimates and Projects (PERT/Mont Carlo)
- Project Duration Reduction Techniques like Crashing and Fast Tracking, Exercises
- Adding Resources to the Gantt, resolving Resource Issues and creating the project resources and cost baseline
- Advanced Risk Management Techniques
- Principle of Earned Value
- Principles of quality Management for Projects
- Principles of Stakeholder and Communications Management
- Principles of Procurement Management
- Introduction to Agile Project Management
- Critical Chain Project Management and Course Review
- Final Quiz

## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Create a project plan for a project including risk, quality, procurement, communications and stakeholder management
- Apply the principles of uncertainty and probability on project planning, duration and cost estimation
- Explain the Principles of Earned Value Management
- Calculate the project reviewed end date and estimates cost at completion
- Evaluate resource utilization over the project duration and resolve issues of overutilization and create the resources and budget baseline
- Estimate probabilistic project duration and costs using PERT and/or Monte Carlo Simulation
- Identify the elements related to Quality, Procurement, Stakeholders and Communication
- Explain the principles of Agile and Critical Chain Project Management (CCPM).

Learning Outcomes:	Assessed in this module?	Assessment			
		A	B	C	D
On successful completion of the course the candidate					

will be able to:					
L 1	Apply the principles of uncertainty and probability on project planning, duration and cost estimation and introduce methods like PERT and Monte Carlo	YES	✓		✓
L 2	Explain the principles of earned value management and calculate the estimated project duration and final cost	YES	✓		✓
L 3	Evaluate resource utilization, apply resources levelling and smoothing to remove overutilization and create the resource and budget baselines	YES			✓
L 4	Identify the elements related to quality, procurement, stakeholders and communication	YES	✓	✓	
L 5	Explain the principles of Agile and Critical Chain Project Management	YES	✓		✓

## Assessments.

**Forum:** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

- Focus on Project Success, Tools and Techniques, Luc De Ceuster, 2010
- Focus on Risk Management, Manage Risks to Improve Project Success, Luc De Ceuster, 2010
- Focus on Earned Value, Earned Value Management for Successful Projects, Luc De Ceuster, 2010
- SLACK, Nigel, CHAMBERS, Stuart & JOHNSTON, Robert. Operations Management (4<sup>th</sup> edition), Prentice Hall.
- Radical Project Management, 1st Edition, Prentice Hall 2002 by Rob Thomsett; ISBN: 0-13-009486-2 (the digested version of the text is stored on the e-Learning as PMThomsett.pdf)
- Project Management, 3rd Edition, Pearson Education Limited 2003 by Harvey Maylor; ISBN: 0-273-65541-8
- Managing Projects, Prentice Hall 2002 by David Boddy, ISBN: 0272-65128-5

# CODE: CP305 - PROJECT MANAGEMENT CAPM III

## COURSE DETAILS

Course level:	Certificate
Course category:	Core requirement
Course credits:	10
Course duration:	13 weeks
Total contact hours:	44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours:	2
Total study hours:	230 (117hrs self-directed + 9hrs Specific assignments +4hrs Research + 100 Preparation)
Language of instruction:	English
Teacher:	Luc De Ceuster, MSc, PMP

Pre-requisites	CP205 – Project Management CAPM II
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The Course CP305 Project Management (CAPM III) is the third course in a series of 4 during which you will be introduced into the “Art of Project Management”.

During this course module, you will learn about the PMI Certification of Certified Associate in Project Management abbreviated as CAPM.

After learning about the tools and techniques, terms and terminologies and important concepts in CAPM I and II we will now look deeper into the certification program and knowledge you need to pass the CAPM exam organized by the Project Management Institute.

The main document that we will work with and refer to when describing the different elements is the Guide to the Project Management Body of Knowledge also referred to as the PMBOK®.

This course will prepare you to take the exam by reviewing all topics included in the PMBOK and passing test quizzes that are set up per section and that will provide you with typical questions as you can find in the real exam.

At the end of the course module CP305a Project Management (CAPM IV) you will have the opportunity to test your knowledge on a real 3-hour exam simulation covering 150 questions.

## **COURSE CONTENT**

In the following overview, you will find the main topics that will be taught during the successive lessons.

- Review of the Tools and Techniques, main terms and terminology from CAPM I and II
- Overview of the PMI and CAPM Training Content
- Overview of the different domains that are part of the PMBOK and chapter overview
- PMBOK - Chapter 1: Introduction to project management part 1
- PMBOK - Chapter 1: Introduction to project management part 2
- PMBOK - Chapter 2: The project environment
- PMBOK - Chapter 3: The Role of the Project Manager
- PMBOK - Chapter 4: Project Integration Management part 1
- PMBOK - Chapter 4: Project Integration Management part 2
- PMBOK - Chapter 5: Project Scope Management Processes
- PMBOK - Chapter 5: Project Scope Management Tools and Techniques
- Chapters review and preparation for the final quiz
- Midterm and Final Quiz
- Principles of Procurement Management
- Introduction to Agile Project Management
- Critical Chain Project Management and Course Review
- Final Quiz

## **LEARNING CONTENT AND OUTCOMES**

At the completion of the course the student will be able to:

- Memorize the inputs, tools and techniques and outputs of the processes related to the knowledge areas Integration and Scope Management
- Apply the tools and techniques of the processes related to the different knowledge areas
- Recite the content related to the introduction of project management, the role of the project manager and the project environment
- Describe the importance of the PMI and the CAPM certification, the different domains of the PMBOK and the content of the chapters

- Prepare for the CAPM certification exam
- Identify the different knowledge areas as defined in the PMBOK

<b>Learning Outcomes:</b>  On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Memorize the inputs, tools and techniques and outputs of the processes related to the knowledge areas Integration and Scope Management	YES	✓			
L 2	Apply the tools and techniques of the processes related to the different knowledge areas	YES	✓		✓	✓
L 3	Recite the content related to the introduction of project management, the role of the project manager and the project environment	YES	✓			
L 4	Describe the importance of the PMI and the CAPM certification, the different domains of the PMBOK and the content of the chapters	YES	✓			
L 5	Identify the different knowledge areas as defined in the PMBOK and prepare for the CAPM Certification Exam	YES	✓	✓		

### Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY

- A Guide to the Project Management Body of Knowledge (PMBOK Guide). 6<sup>th</sup> Edition, Project Management Institute, USA, ISBN: 9781628251845
- Focus on Project Success, Tools and Techniques, Luc De Ceuster, 2010

- Focus on Risk Management, Manage Risks to Improve Project Success, Luc De Ceuster, 2010
- Focus on Earned Value, Earned Value Management for Successful Projects, Luc De Ceuster, 2010
- SLACK, Nigel, CHAMBERS, Stuart & JOHNSTON, Robert. Operations Management (4<sup>th</sup> edition), Prentice Hall.
- Radical Project Management, 1st Edition, Prentice Hall 2002 by Rob Thomsett; ISBN: 0-13-009486-2 (the digested version of the text is stored on the e-Learning as PMThomsett.pdf)
- Project Management, 3rd Edition, Pearson Education Limited 2003 by Harvey Maylor; ISBN: 0-273-65541-8
- Managing Projects, Prentice Hall 2002 by David Boddy, ISBN: 0272-65128-5

## CODE: CP305A- PROJECT MANAGEMENT CAPM IV

### COURSE DETAILS

Course level: Certificate  
 Course category: Specialization Course  
 Course credits: 10  
 Course duration: 13 weeks  
 Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)  
 Total exam hours: 2  
 Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments +4hrs Research + 100 Preparation)

Language of instruction: English

Teacher: Luc De Ceuster, MSc, PMP

Pre-requisites	CP305 – Project Management CAPM III
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The Course CP305a Project Management (CAPM IV) is the final course in a series of 4 during which you will be introduced into the “Art of Project Management”.

During this course module, you will continue learning about the PMI Certification of Certified Associate in Project Management abbreviated as CAPM.

After learning about the tools and techniques, terms and terminologies and important concepts in CAPM I and II we will now look deeper into the certification program and knowledge you need to pass the CAPM exam organized by the Project Management Institute by introducing the remaining chapters and knowledge areas.

The main document that we will work with and refer to when describing the different elements is the Guide to the Project Management Body of Knowledge also referred to as the PMBOK®.

This course will prepare you to take the exam by reviewing all topics included in the PMBOK and passing test quizzes that are set up per section and that will provide you with typical questions as you can find in the real exam.

At the end of this course module CP305a Project Management (CAPM IV) you will have the opportunity to test your knowledge on a real 3-hour exam simulation covering 150 questions.

## COURSE CONTENT

In the following overview, you will find the main topics that will be taught during the successive lessons.

- Review chapters 1 to 5 of the PMBOK
- PMBOK Chapter 6 - Project Schedule Management - Processes
- PMBOK Chapter 6 - Project Schedule Management - Tools and Techniques
- PMBOK Chapter 7 - Project Cost Management
- PMBOK Chapter 8 - Project Quality Management
- PMBOK Chapter 9 - Project Resources Management
- PMBOK Chapter 10 - Project Communications Management
- PMBOK Chapter 11 - Project Risk Management
- PMBOK Chapter 12 - Project Procurement Management
- PMBOK Chapter 12 - Project Stakeholder Management, Code of Conduct and Review of all chapters to prepare for the final quiz
- Midterm Quiz
- Final Quiz = Certification exam simulation, 150 questions to complete in 3 hours.



## LEARNING CONTENT AND OUTCOMES

At the completion of the course the student will be able to:

- Memorize the inputs, tools and techniques and outputs of the processes related to the knowledge areas Schedule, Cost, Quality, Resources, Communication, Risk, Procurement and Stakeholder Management
- Apply the tools and techniques of the processes related to the different knowledge areas
- Analyze the links between the different process part of the knowledge areas as defined in the PMBOK
- Summarize the different processes and to which project management process step they belong
- Diagram the processes and their links
- Prepare for the CAPM Certification exam as determined by the PMI

Learning Outcomes:  On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Memorize the inputs, tools and techniques and outputs of the processes related to the knowledge areas Schedule, Cost, Quality, Resources, Communication, Risk, Procurement and Stakeholder Management	YES	✓			
L 2	Apply the tools and techniques of the processes related to the different knowledge areas	YES	✓		✓	✓
L 3	Analyze the links between the different process part of the knowledge areas as defined in the PMBOK	YES	✓			
L 4	Summarize the different processes and to which project management process step they belong	YES	✓			
L 5	Prepare for the CAPM Certification exam as determined by the PMI	YES	✓	✓		

### Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

- A Guide to the Project Management Body of Knowledge (PMBOK Guide). 6<sup>th</sup> Edition, Project Management Institute, USA, ISBN: 9781628251845
- Focus on Project Success, Tools and Techniques, Luc De Ceuster, 2010
- Focus on Risk Management, Manage Risks to Improve Project Success, Luc De Ceuster, 2010
- Focus on Earned Value, Earned Value Management for Successful Projects, Luc De Ceuster, 2010
- SLACK, Nigel, CHAMBERS, Stuart & JOHNSTON, Robert. Operations Management (4<sup>th</sup> edition), Prentice Hall.
- Radical Project Management, 1st Edition, Prentice Hall 2002 by Rob Thomsett; ISBN: 0-13-009486-2 (the digested version of the text is stored on the e-Learning as PMThomsett.pdf)
- Project Management, 3rd Edition, Pearson Education Limited 2003 by Harvey Maylor; ISBN: 0-273-65541-8
- Managing Projects, Prentice Hall 2002 by David Boddy, ISBN: 0272-65128-5

## **CPA PROGRAM**

This online program will provide you with the requisite knowledge to sit for the Examinations administered for the Certified Public Accountant (CPA). Being a CPA means being a member of a professional order and the EBU Program is designed to encourage the development of critical thinking, analysis and communication skills. By facilitating personal growth and the ability to adapt and respond to a complex and changing environment, this EBU Certified Public Accountant program helps you acquire advanced knowledge in accounting, problem-solving skills, professional communication skills, research and analytical skills and related aspects of business.

Students have a scheduled 24 months to complete the online course (6 sections with each section having 3 courses per term). Some sections do not have to be completed consecutively. Once registered, you will have access to the EBU Online campus and global community of students. Your password and access information will be emailed to you in time for the start of class. The starting dates are October, January and March of each year. Live webinars conducted once a week for 1 hour with a Professor will take place generally between 16:00hrs – 18:00hrs CET. Discussion forums will take place during the 24 month program and participation is mandatory.

Upon successful passing of courses students will receive a European Institute CPA Completion Certificate and may proceed to obtaining country specific exams.

**Important:** Please be advised that for the CPA program - students MUST complete one section (all 3 courses) every term. The Scholarship requirement is that they must enrol in all three courses and pay a commitment fee for each - otherwise the scholarship is revoked.

EBU provides full scholarships for prospective students who wish to enrol with the payment of a €20 commitment fee per course for a total of €360 (18 courses) payable at €20 per course upon enrollment.

For more information:

<https://ebi.lu/wp-content/uploads/2019/04/CPA-Certificate-Program-Overview.pdf>

CPA PART I	CPA PART II	CPA PART III
<u>SECTION 1</u> Financial accounting Business Law Corporate law	<u>SECTION 3</u> Public finance and taxation Financial management Financial reporting	<u>SECTION 5</u> Business Strategy, governance and ethics Advanced Managerial Accounting Advanced financial management
<u>SECTION 2</u> Micro and Macroeconomics Managerial Accounting Entrepreneurship and communication	<u>SECTION 4</u> Auditing and assurance Management information systems Quantitative analysis	<u>SECTION 6</u> Advanced public finance and taxation Advanced auditing and assurance Advanced financial reporting

## SECTION 1

### Course Description

- **Financial accounting:**

Financial Accounting introduces the candidate to the fundamentals of the regulatory framework relating to accounts preparation and to the qualitative characteristics of useful information. The syllabus then covers drafting financial statements and the principles of accounts preparation. The syllabus then concentrates in depth on recording, processing, and reporting business transactions and events. The syllabus then covers the use of the trial balance and how to identify and correct errors, and then the preparation of financial statements for incorporated and unincorporated entities. The syllabus then moves in two directions, firstly requiring candidates to be able to conduct a basic interpretation of financial statements; and secondly requiring the preparation of simple consolidated financial statements from the individual financial statements of group incorporated entities.

- **Business Law:**

Business Law is an introductory course on the different legal features that underlie business transactions. The course aims to provide students with the skills required to have a basic understanding of the various concepts found in Law. Students will begin by looking at the essential elements of the legal system which will lay down the foundations for the subsequent topics of the law of obligations, employment law and the formation and constitution of business organizations. This course, complemented by Corporate Law, will allow the students to have an adequate and sufficient manipulation of legal theories approaching the CPA exam.

- **Corporate law:**

The aim of the syllabus is to develop knowledge and skills in the understanding of the general legal framework, and of specific legal areas relating to business, recognising the need to seek further specialist legal advice where necessary. Corporate Law starts with an introduction to the overall legal system which underpin business transactions generally. The syllabus then covers a range of specific legal areas relating to various aspects of business of most concern to finance professionals. These are the law relating to employment and the law relating to companies. These laws include the formation and constitution of companies, the financing of companies and types of capital, and the day-to-day management, the administration and regulation of companies and legal aspects of insolvency law. The final section links back to all the previous areas. This section deals with corporate fraudulent and criminal behaviour.

## SECTION 2

### Course Description

- **Micro and Macroeconomics:**

Both microeconomics and macroeconomics play a role in business decisions and strategy formulation. Whether formulating strategy at the functional, business or corporate level, professional accountants must have a basic understanding of economics and the impact it

has on business. This course introduces microeconomics and macroeconomics as the basis for making smart choices in life as consumers, businesspeople, investors, and informed citizens judging government policies. Microeconomics focuses on a cost/benefit analysis of all decisions. Topics include gains from trade, how prices coordinate choices, the roles of competition and monopoly, efficiency/equity trade-offs, government versus market failures, environmental policies, and income/wealth distributions. Macroeconomics focuses on the performance of market economies — measured by GDP growth, unemployment, and inflation — and appropriate roles for government monetary and fiscal policies. Topics include GDP, economic growth, business cycles, unemployment, inflation, money and exchange rates, government deficits, the national debt, globalization, and trade policy.

- **Managerial Accounting:**

The syllabus for Management Accounting introduces candidates to elements of management accounting which are used to make and support decisions. The syllabus starts by introducing the nature, the source and purpose of management information followed by the statistical techniques used to analyse data. Then the syllabus addresses cost accounting and the costing techniques used in business which are essential for any management accountant. The syllabus then looks at the preparation and use of budgeting and standard costing and variance analysis as essential tools for planning and controlling business activities. The syllabus concludes with an introduction to measuring and monitoring the performance of an organisation.

- **Entrepreneurship and communication:**

This course intends to equip the candidate with knowledge, skills and attitudes that will enable him/her to apply entrepreneurship knowledge in business and other environments. This course focuses on understanding basic entrepreneurial concepts, the entrepreneurial mindset, and developing entrepreneurial skills. The course emphasizes the entrepreneurial process and communication and the application of this process to a broad range of business contexts. The course also addresses creativity, securing resources, team building, communication, and leadership.

## **SECTION 3**

### **Course Description**

- **Public finance and taxation:**

The aim of this course is to provide students with a knowledge of the administration of the taxation system generic to most jurisdictions. It introduces students to the application of taxation legislation to individuals and companies in a compliant and ethical manner. Students are introduced to the rationale behind – and the functions of – the tax system. The course then considers the separate taxes that an accountant would need to have a detailed knowledge of, such as income tax from self-employment, employment and investments, the corporation tax liability of individual companies and groups of companies, the national insurance contribution liabilities of both employed and self-employed persons, and the value added tax liability of businesses. Having covered the core areas of the basic taxes, candidates should be able to compute tax liabilities, explain the basis of their calculations, apply tax planning techniques for individuals and companies and identify the compliance issues for each major tax through a variety of business and personal scenarios and situations.

- **Financial management:**

The aim of the course is to develop the knowledge and skills expected of a finance manager, in relation to investment, financing, and dividend policy decisions. The course is designed to equip candidates with the skills that would be expected from a finance manager responsible for the finance function of a business. It prepares candidates for more advanced and specialist study in Advanced Financial Management.

- **Financial reporting:**

The aim of the syllabus is to develop knowledge and skills in understanding and applying IFRS Standards and the theoretical framework in the preparation of financial statements of entities, including groups and how to analyse and interpret those financial statements. The financial reporting syllabus assumes knowledge acquired in Financial Accounting, and develops and applies this further and in greater depth. The syllabus begins with the Conceptual Framework for Financial Reporting with reference to the qualitative characteristics of useful information and the fundamental bases of accounting introduced in the Financial Accounting syllabus within the Knowledge module. It then moves into a detailed examination of the regulatory framework of accounting and how this informs the standard setting process. The main areas of the syllabus cover the reporting of financial information for single companies and for groups in accordance with generally accepted accounting principles and relevant IFRS Standards.

## **SECTION 4**

### **Course Description**

- **Auditing and assurance.**

The Audit and Assurance syllabus is essentially divided into six areas. The syllabus starts with the nature, purpose and scope of assurance engagements, including the statutory audit, its regulatory environment, and introduces governance and professional ethics relating to audit and assurance. It then leads into planning the audit and performing risk assessment. The syllabus then covers a range of areas relating to an audit of financial statements including the scope of internal control and the role and function of internal audit. These include, evaluating internal controls, audit evidence, and a review of the financial statements. In addition to final review procedures, the syllabus concentrates on reporting, including the form and content of the independent auditor's report.

- **Management information systems.**

In this course students investigate on existing technologies about software and hardware to solve problems and learn to display proficiency in decision making using contemporary Information systems tools. Students will apply the principles of information systems development and learn to apply the knowledge of information systems for competitive advantage This course aim so allow the student to learn the use of data communication networks, the Internet and e-commerce in optimizing business opportunities.

- **Quantitative analysis:**

The Quantitative Analysis course aims develop an understanding of the mathematical principles and concepts which are useful in problem solving and decision making. The use of statistical methods in decisionmaking and application of statistical and mathematical models for estimation and forecasting are used in the solving and optimization of problems in management.

## **SECTION 5**

### **Course Description**

#### **- Business Strategy, governance and ethics:**

Global Strategy and consolidates and builds on knowledge candidates have gained in the other subjects: In an increasingly complex business environment characterised by change, uncertainty and escalating competition, the disciplines of strategy and leadership have become critical to successful organisational performance. The aim of this subject is to link the knowledge expected of the future finance professional to the concepts of strategy and leadership. The future finance professional is expected to use a range of technical information to make decisions for the future of the business within an ethical framework of operation. This subject demonstrates that accounting information, ethics, strategy and leadership are applicable to finance professionals, in a global context and in diverse organisational settings. The subject materials address the needs of candidates operating in different international markets in varying roles, including content on current and emerging technologies and emerging business models.

#### **- Advanced Managerial Accounting:**

This course is based on the prior completion of Management Accounting. The objective is to provide students with an appreciation of management accounting and to explore how they have impacted on practice. This course will explain and understand real world management accounting, examine both socio and technical aspects of the discipline together, and consider management accounting and Activity-based costing, Balanced Scorecard, Strategy execution, Costvolume profit analysis and more advanced topics.

#### **- Advanced financial management:**

The aim of the syllabus is to apply relevant knowledge, skills and exercise professional judgement as expected of a senior financial executive or advisor, in taking or recommending decisions relating to the financial management of an organisation in private and public sectors. This syllabus develops upon the core financial management knowledge and skills covered in the Financial Management syllabus and prepares candidates to advise management and/or clients on complex strategic financial management issues facing an organisation. The syllabus starts by exploring the role and responsibility of a senior executive or advisor in meeting competing needs of stakeholders within the business environment of multinationals. The syllabus then re-examines investment and financing decisions, with the emphasis moving towards the strategic consequences of making such decisions in a domestic, as well as international, context. Candidates are then expected to develop further advisory skills in planning strategic acquisitions and mergers and corporate re-organisations. The next part of the syllabus re-examines, in the broadest sense, the existence of risks in business and the sophisticated strategies which are employed in order



to manage risks. It builds on what candidates would have covered in the Financial Management syllabus.

## SECTION 6

### Course Description

#### - **Advanced public finance and taxation:**

The aim of the syllabus is to apply relevant knowledge and skills and exercise professional judgement in providing relevant information and advice to individuals and businesses on the impact of the major taxes on financial decisions and situations. The Advanced Taxation syllabus further develops the key aspects of taxation introduced within the Applied Skills module and extends the candidates' knowledge of the tax system, together with their ability to apply that knowledge to the issues commonly encountered by individuals and businesses, such that successful candidates should have the ability to interpret and analyse the information provided and communicate the outcomes in a manner appropriate to the intended audience. The syllabus builds on the basic knowledge of core taxes from the earlier taxation exam and introduces candidates to stamp taxes. As this is an optional exam, aimed at those requiring/desiring more than basic tax knowledge for their future professional lives, the syllabus also extends the knowledge of income tax, corporation tax, capital gains tax and inheritance tax to encompass further overseas aspects of taxation, the taxation of trusts and additional exemptions and reliefs. Computations will normally only be required in support of explanations or advice and not in isolation.

#### - **Advanced auditing and assurance:**

The aim of the syllabus is to analyse, evaluate and conclude on the assurance engagement and other audit and assurance issues in the context of best practice and current developments. The Advanced Audit and Assurance syllabus further develops key skills introduced in Audit and Assurance at the Applied Skills level. The syllabus starts with the legal and regulatory environment including money laundering, and professional and ethical considerations, including the Code of Ethics and professional liability. This then leads into procedures in quality management, including quality management relevant at the firm and the engagement level and the acceptance and retention of professional engagements. The syllabus then covers the audit of financial statements, including planning, and evidence gathering. It then covers the completion, evidence evaluation and review and reporting on an audit of historical financial information. The next section moves onto other assignments including prospective financial information, due diligence and forensic audit as well as the reporting of these assignments. The next section covers current issues and developments relating to the provision of audit related and assurance services.

#### - **Advanced financial reporting:**

As a continuation of Financial Reporting, this course covers the accounting for business combinations, the preparation of consolidated financial statements, and other related topics including, but not limited to: step-by-step acquisition, deconsolidation, segments reporting, and the goodwill impairment test. This course begins with a discussion of the scope and the differences between business combinations and asset acquisitions. The course explores the measurement and recognition principles of the acquisition method to account for business combinations. Then, the course covers the consolidation process. Students will learn how to



prepare the consolidated financial statements and make all of the necessary consolidation adjustments.

# **FINTECH AND BLOCKCHAIN**

## **SPECIALIZATION COURSE**

### **CODE: BSDL101 - INTRODUCTION TO DIGITAL CURRENCIES, ICOs& MARKETS**

#### **COURSE DETAILS**

Course level: certificate

Course category: Specialization Course

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

#### **COURSE OVERVIEW**

This course was designed for individuals and organizations who want to learn how to navigate investment in cryptocurrencies. Students will learn how to define a currency, analyze the foundations of digital signatures and blockchain technology in cryptocurrency, and accurately assess the risks of cryptocurrency in a modern investment portfolio. By the end of this course, students will have a deep understanding of the realities of Cryptocurrency, the intricacies of Blockchain technology, and an effective strategy for incorporating Cryptocurrency into investment plans.

#### **COURSE OBJECTIVES**

The course will survey the theory and principles by which cryptocurrencies operate, practical examples of basic cryptocurrency use, including clients, wallets, transactions. We'll look at the cryptocurrency ecosystem financial services and discuss the existing and potential interaction of cryptocurrencies with the banking, financial, legal and regulatory environment. Lastly, the course will examine in detail how cryptocurrencies can be viewed from an innovation perspective and what opportunities they present for the developing world.

#### **COURSE CONTENT**

- Fundamental technology components of blockchain-based digital currencies

- Advanced uses of the blockchain, escrow services, multi-signature transactions, asset registration, attestation and smart contracts applications.
- Alternative blockchains to Bitcoin
- Cryptocurrencies and the monetary and banking systems,
- Regulation and cryptocurrencies
- Developing, financial inclusion and economic development.

## COURSE OUTCOMES

At the completion of the course the student will be able to:

- Understand the fundamental technology components of blockchain-based digital currencies, the process of currency issuance, proof-of-work and alternative consensus mechanisms, how they are applied and how the distributed ledger is structured in its core.
- Understand more advanced uses of the blockchain such as escrow services, multi-signature transactions, asset registration, attestation and smart contracts applications.
- Understand alternative blockchains to Bitcoin, such as alt-coins and Ethereum and IOU-based systems like Ripple.
- Understand what parallels and differences cryptocurrencies have with the existing monetary and banking systems, what approaches are the same and what is fundamentally different.
- Understand existing approaches by regulators globally, and the likely frameworks for regulating cryptocurrencies, and their interface with conventional finance, in the future.
- Be able to critically judge on their own, whether cryptocurrencies are disruptive innovations, and what hurdles, bottlenecks or avenues exist towards wider adoption, as well as the potential they present for leapfrogging infrastructure in developing nations and the potential they present for improving financial inclusion and economic development.

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the fundamental technology components of blockchain-based digital currencies, the process of currency issuance, proof-of-work and alternative consensus mechanisms, how they are applied and how the distributed ledger is structured in its core.	YES	X	X	X	X
L2	Understand more advanced uses of the blockchain such as escrow services, multi-signature transactions, asset registration, attestation and smart contracts applications.	NO	X	X	X	X

L3	Understand alternative blockchains to Bitcoin, such as alt-coins and Ethereum and IOU-based systems like Ripple.	YES	X	X	X	X
L4	Understand what parallels and differences cryptocurrencies have with the existing monetary and banking systems, what approaches are the same and what is fundamentally different.	YES	X	X	X	X
L5	Understand existing approaches by regulators globally, and the likely frameworks for regulating cryptocurrencies, and their interface with conventional finance, in the future.	YES	X	X	X	X
L6	Be able to critically judge on their own, whether cryptocurrencies are disruptive	NO	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** ≥ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

Bibliography: TBD

## SPECIALIZATION COURSE

# CODE: BSDL102 - CYBER SECURITY RISK REGULATION

## COURSE DETAILS

Course level: certificate

Course category: Specialization Course

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

Cybersecurity is a complex, sophisticated, and growing challenge. This course explores cybersecurity topics from a business context in alignment with prevailing standards and guidelines. The major domains of security are explored from organizational management, risk, and technical perspectives. Critical security goals of Confidentiality, Integrity, and Availability are discussed. The emerging threat landscape is examined, including attacker motives and tactics. The concept of system vulnerabilities is explained along with a review of enterprise techniques for vulnerability management. The security challenge is presented from the enterprise perspective, with attention to the intersection of individual, organizational, and technical cybersecurity concerns.

## COURSE OBJECTIVES

1. To introduce the fundamental concepts of information and cybersecurity in the business enterprise.
2. To explore the threats and vulnerabilities associated with business systems.
3. To understand the core domains of security as presented in widely accepted cybersecurity frameworks.
4. To explain critical cybersecurity technical components as related to the respective security domains.
5. To introduce cyber risk management concepts.
6. To explore the challenges of communicating cybersecurity concepts to business executives.

## COURSE CONTENT

- Concepts of cybersecurity and technical risks
- Security goals in information systems

- Cyber risk in a systems environment.
- Cyber security threats
- Common security frameworks to treat cyber risks

## COURSE OUTCOMES

At the completion of the course:

1. Students will be able to communicate concepts of cybersecurity and technical risks to management, executives, and other non-technical audiences.
2. Students will recognize common security goals in information systems.
3. Students will explain the characteristics of information or cyber risk in a systems environment.
4. Students will understand the prevailing information and cybersecurity threats.
5. Students will be able to apply common security frameworks to treat cyber risks

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Students will be able to communicate concepts of cybersecurity and technical risks to management, executives, and other non-technical audiences.	NO	X	X		
L2	Students will recognize common security goals in information systems.	YES	X	X	X	X
L3	Students will explain the characteristics of information or cyber risk in a systems environment.	YES	X	X	X	X
L4	Students will understand the prevailing information and cyber security threats.	YES	X	X	X	X
L5	Students will be able to apply common security frameworks to treat cyber risks	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory  
**Midterm Exam:** > 40% (Recommendation 30%)  
**Final Exam:** 30-40%. (Recommendation 40%)  
**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

Bibliography: TBD

## SPECIALIZATION COURSE

# CODE: BSDL200 - BLOCKCHAIN TECHNOLOGY FUNDAMENTALS

## COURSE DETAILS

Course level: certificate  
Course category: Specialization Course  
Course credits: 10  
Course duration: 13 weeks  
Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)  
Total exam hours: 2  
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)  
Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

## COURSE OVERVIEW

The course will cover the most important blockchain concepts, the philosophy of decentralization behind blockchain, and the main discussions within the blockchain environment.

## COURSE OBJECTIVES

The objectives of the Blockchain Fundamentals course consists of knowledge and practical skills components. We will work according to a 'Flipped Learning' methodology. This means that we will create a learning environment in which you, together with your peers, can actively develop your knowledge and skills. You will be put in charge of your own learning progress.

## COURSE CONTENT

- History, technology, and applications of Blockchain
- Blockchain applications and concepts

- Creating a Crypto token and initial Coin Offering
- cryptocurrency exchanges and wallets
- Blockchain startups

## COURSE OUTCOMES

At the completion of the course the student will be able to:

1. The student will be able to comfortably discuss and describe the history, technology, and applications of Blockchain
2. The student will be able to assess Blockchain applications in a structured manner
3. The student will be able to present Blockchain concepts clearly and persuasively
4. The student will be able to create their own Crypto token
5. The student will be able to create their own Initial Coin Offering
6. The student will be able to use cryptocurrency exchanges and wallets safely
7. The student will gain familiarity with investing in Blockchain startups

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	The student will be able to comfortably discuss and describe the history, technology, and applications ofBlockchain	NO	X	X		
L2	The student will be able to assess Blockchain applications in a structured manner	YES	X	X	X	X
L3	The student will be able to present Blockchain concepts clearly and persuasively	YES	X	X	X	X
L4	The student will be able to create their own Crypto tokenand, gain familiarity with investing in Blockchain startups	YES	X	X	X	X
L5	The student will be able to create their own Initial CoinOffering	YES	X	X	X	X



L6	The student will be able to use cryptocurrency exchanges and wallets safely	NO	X	X		
----	---	----	---	---	--	--

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

### Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** 30-40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

### BIBLIOGRAPHY

Bibliography: Foundations of Financial Management, Block & Danielsen, McGraw-Hill

## SPECIALIZATION COURSE

### CODE: BSDL300 -PRINCIPLES IN INNOVATION DISRUPTION

#### COURSE DETAILS

Course level: certificate  
Course category: Specialization Course  
Course credits: 10  
Course duration: 13 weeks  
Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)  
Total exam hours: 2  
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)  
Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

#### COURSE OVERVIEW

This course will examine how innovation-driven by emerging technologies is transforming the way we do business and disrupting well-established industries. The driver for the current and imminent wave of disruption is the emergence of technological breakthroughs that can be leveraged by innovative entrepreneurs and forward-thinking companies. Though fast and agile processes, creative innovators are indeed able to appropriate these new technologies and adapt them to relevant use cases that could potentially disintermediate traditional lines of business, or deliver previously unthought-of business models. Some of these technologies are embodied in current buzzwords such as: Big Data, Machine Learning, Artificial Intelligence, Blockchain, Synthetic Biology, Digital Fabrication, Industry 4.0, Internet of Things. Harnessing these emerging technologies and creating innovative business models around them is a process that requires a good knowledge of entrepreneurial principles such as Lean Start-up and Rapid Prototyping, but also a fundamental understanding of the principles behind the technologies in question. For this reason, this course places itself at the intersection between business and technology and aims at strengthening the students' holistic understanding of the interplay between these two domains.

#### COURSE OBJECTIVES

The objectives of this course are twofold: First, to introduce principles of disruptive innovation in entrepreneurial and economic settings. Second, to focus on disruptive innovation in the sphere of blockchain technology and discuss the potential disruption within various industries.

## COURSE CONTENT

- Fundamentals of disruptive technologies
- Advances in disruptive technologies (Start-ups, Industry players and consortia, Software providers, Government and regulators, etc.),
- Business use-cases
- New business models and evolving infrastructures
- Challenges in entrepreneurial activities, cross-industry collaboration and engagement
- Issues and dilemmas in disruptive technologies, ethics, privacy, sustainability, and legislation

## COURSE OUTCOMES

At the completion of the course the student will be able to have:

- Clear and critical grasp of the fundamentals of the covered disruptive technologies, their promise as well as their current limitations
- Overview over the ecosystem of stakeholders pushing advances in disruptive technologies forward (Start-ups, Industry players and consortia, Software providers, Government and regulators, etc.), and ability to individually map out the ecosystem for a given technology.
- Knowledge of pertinent business use-cases related to specific technologies, and the ability to assess these use-cases
- Ability to conceptualize and understand new business models based on collaborative, open, and continuously evolving infrastructures
- Awareness and understanding of challenges involved in engaging in entrepreneurial activities in the domain of technologies that are at an early maturity stage
- Awareness of the importance of cross-industry collaboration and engagement in the process of ongoing standards-building for new technologies.
- Understanding of issues and dilemmas in the development of disruptive technologies related to ethics, privacy, sustainability, and legislation

<b>Learning Outcomes:</b> On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Clear and critical grasp of the fundamentals of the covered disruptive technologies, their promise as well as their current limitations	NO	X	X		

L2	Overview over the ecosystem of stakeholders pushing advances in disruptive technologies forward (Start-ups, Industry players and consortia, Software providers, Government and regulators, etc.), and ability to individually map out the ecosystem for a given technology.	YES	X	X	X	X
L3	Knowledge of pertinent business use-cases related to specific technologies, and the ability to assess these use-cases	NO	X	X		
L4	Awareness of the importance of cross-industry collaboration and engagement in the process of ongoing standards-building for new technologies.	YES	X	X	X	X
L5	Ability to conceptualize and understand new business models based on collaborative, open, and continuously evolving infrastructures	YES	X	X	X	X
L6	Understanding of issues and dilemmas in the development of disruptive technologies related to ethics, privacy, sustainability, and legislation	NO	X	X		
L7	Awareness and understanding of challenges involved in engaging in entrepreneurial activities in the domain of technologies that are at an early maturity stage	YES	X	X	X	X

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## BIBLIOGRAPHY

Bibliography: TBD

## COMPLIANCE COURSES

### CODE: COM101 - AML/KYC/COMPLIANCE- PRACTICAL FRAMEWORK

#### COURSE DETAILS

Course level: certificate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)

Total exam hours: 2

Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)

Language of instruction: English

Pre-requisites	N/A
Co-requisites	N/A
Prohibited Combinations	N/A

#### COURSE OVERVIEW

This course is designed to provide participants with a comprehensive understanding of anti-money laundering (AML), know-your-customer (KYC), and compliance frameworks in a practical context. The course will equip participants with the knowledge and tools necessary

to establish and implement effective AML/KYC and compliance frameworks in their organizations. Participants will learn about the global regulatory landscape and the key concepts and principles underlying AML/KYC and compliance frameworks. They will gain an understanding of the risk-based approach to AML/KYC and compliance, including identifying and assessing risks and developing policies, procedures, and controls to mitigate those risks. Throughout the course, participants will be engaged in practical exercises and case studies to apply their knowledge and reinforce their understanding of the concepts and principles covered. By the end of the course, participants will be able to confidently implement and manage AML/KYC and compliance frameworks in their organizations, in compliance with global regulations and best practices. The course is divided into 10 modules, each focusing on a specific area of AML/KYC/Compliance.

## **COURSE OBJECTIVES**

1. Identify the key concepts, terminologies, and principles of Anti-Money Laundering (AML), Know Your Customer (KYC), and Compliance frameworks.
2. Explain the risks associated with money laundering, terrorist financing, proliferation financing, and tax crimes, and how to detect and prevent them.
3. Describe the responsibilities and roles of various stakeholders in AML/KYC/Compliance, such as financial institutions, regulators, law enforcement, and the private sector.
4. Apply the risk-based approach to AML/KYC/Compliance, and develop effective policies, procedures, and controls to mitigate the risks of money laundering and other financial crimes.
5. Analyze the consequences of non-compliance with AML/KYC/Compliance regulations, including penalties, reputational damage, and legal liability, and learn how to avoid and address them.

## **LEARNING OUTCOMES**

After taking the course of AML/KYC/Compliance students should be able to:

1. After completing the course, learners will be able to identify and explain the different forms of financial crimes, such as money laundering, terrorist financing, proliferation financing, and tax crimes.
2. Upon completion of the course, learners will be able to describe the roles and responsibilities of various stakeholders in the AML/KYC/Compliance framework, such as financial institutions, regulators, law enforcement, and the private sector.
3. After completing the course, learners will be able to apply the risk-based approach to AML/KYC/Compliance, and develop effective policies, procedures, and controls to mitigate the risks of financial crimes.
4. Upon completion of the course, learners will be able to recognize and analyze red flags and other indicators of suspicious activities and take appropriate actions to report them to the relevant authorities.
5. After completing the course, learners will be able to understand the consequences of non compliance with AML/KYC/Compliance regulations and learn how to avoid and address them through effective compliance and risk management measures.

<b>Learning Outcomes:</b> On successful completion of the course, the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	After completing the course, learners will be able to identify and explain the different forms of financial crimes, such as money laundering, terrorist financing, proliferation financing, and tax crimes.	YES	X	X	X	
L2	Upon completion of the course, learners will be able to describe the roles and responsibilities of various stakeholders in the AML/KYC/Compliance framework, such as financial institutions, regulators, law enforcement, and the private sector.	YES	X	X		
L3	After completing the course, learners will be able to apply the risk-based approach to AML/KYC/Compliance and develop effective policies, procedures, and controls to mitigate the risks of financial crimes.	YES	X		X	
L4	Upon completion of the course, learners will be able to recognize and analyze red flags and other indicators of suspicious activities and take appropriate actions to report them to the relevant authorities.	YES	X		X	X
L5	After completing the course, learners will be able to understand the consequences of non-compliance with AML/KYC/Compliance regulations and learn how to avoid and address them through effective compliance and risk management measures.	YES	X		X	X
L6	Analyze and evaluate how different corporate sustainability initiatives are implemented by companies to become more sustainable	YES	X	X	X	

A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

## Assessments

**Forum:** 5% Mandatory

**Midterm Exam:** ➤ 30% (Recommendation 30%)

**Final Exam:** 30%. (Recommendation 40%)

**Quizzes Multiple Choice:** 35 % (adjustable)

## BIBLIOGRAPHY

Suggested readings: Books and Journals

1. "Anti-Money Laundering: A Guide for the Non-Executive Director" by Mark Pieth – Palgrave Macmillan
2. "The Anti-Money Laundering Toolkit: Practical Guidance for Regulated Financial Services Firms" by Mark G. Alexandridis and Robin L. Jarvis - John Wiley & Sons
3. "Anti-Money Laundering and Financial Crime: An End-to-End Guide" by Matthew Farrugia and Richard Keshen - Routledge
4. "Anti-Money Laundering Compliance Handbook: A Practical Hands-On Guide for Compliance Professionals" by Kevin Sullivan - John Wiley & Sons
5. "Anti-Money Laundering in a Nutshell: Awareness and Compliance for Financial Personnel and Business Managers" by Kevin Sullivan - Apress
6. "KYC and AML Compliance: A Practical Guide for Financial Institutions" by Tom Obermaier - John Wiley & Sons
7. "Compliance Management for Financial Institutions: A Risk-Based Approach to KYC and AML" by Alistair Milne and John D. Wood - John Wiley & Sons
8. "Anti-Money Laundering and Counter-Terrorist Financing" by Wouter H. Muller, Gerrit-Jan Zwenne, and Robby Houben - Oxford Institute Press
9. "EU Anti-Money Laundering Directive: A Comprehensive Guide" by Martin J. Quirke - Kluwer Law International
10. "Anti-Money Laundering in Europe: Evolution, Challenges, and Opportunities" by Roberto Saviano and Michele Ballarin - Palgrave Macmillan
11. "Anti-Money Laundering in Europe: The Fourth Directive on Money Laundering" by Juliette Levy and Charles Duchaine - Edward Elgar Publishing
12. "Handbook of Anti-Money Laundering" by Dennis Cox - John Wiley & Sons
13. "Anti-Money Laundering Compliance for Law Firms" by Matthew Moore - Bloomsbury Professional
14. "Combating Financial Crime: A Practical Guide to AML/CTF Compliance" by Nigel Morris-Cotterill
15. "Money Laundering: A Concise Guide for All Business" by Doug Hopton
16. "Risk Management for Anti-Money Laundering and Counter-Terrorism Financing" by John Fay



## **CODE: COM 102 COMPLIANCE - MARKET INTEGRITY AND PREVENTION OF MARKET ABUSE**

### **COURSE DESCRIPTION**

This course is designed to provide participants with a comprehensive understanding of market integrity principles and the prevention of market abuse. It covers essential topics related to maintaining fairness, transparency, and ethical conduct in financial markets, with a focus on regulatory requirements, internal controls, and best practices for listed companies and financial institutions.

### **Course Objectives:**

Understand the concept of market integrity and its significance in financial markets.  
Identify various forms of market abuse and their implications for stakeholders.

Recognize regulatory frameworks and obligations related to market integrity and prevention of market abuse.

Implement effective internal controls and compliance measures to mitigate the risk of market abuse.

Develop strategies for promoting ethical conduct and maintaining trust in financial markets.

## **Course Outline:**

### **Module 1: Introduction to Market Integrity**

- Definition and importance of market integrity
- Key principles of market integrity
- Role of market integrity in maintaining investor confidence

### **Module 2: Market Abuse: Types and Impact**

- Overview of market abuse offenses (e.g., insider trading, market manipulation)
- Impact of market abuse on stakeholders and financial markets
- Case studies and examples of market abuse incidents

### **Module 3: Regulatory Frameworks and Obligations**

- Overview of relevant regulations (e.g., SEC regulations, EU Market Abuse Regulation)
- Compliance requirements for listed companies and financial institutions
- Regulatory enforcement and penalties for market abuse violations

### **Module 4: Internal Controls for Market Integrity**

- Designing and implementing internal controls to prevent market abuse
- Role of compliance functions and risk management in ensuring market integrity
- Monitoring, surveillance, and reporting mechanisms

### **Module 5: Best Practices for Listed Companies**

- Responsibilities of listed companies in promoting market integrity
- Corporate governance practices for preventing market abuse
- Disclosure requirements and transparency initiatives

### **Module 6: Promoting Ethical Conduct**

- Importance of ethical culture in preventing market abuse
- Training and awareness programs for employees and stakeholders
- Whistleblower policies and mechanisms for reporting suspicious activities

### **Module 7: Case Studies and Practical Applications**

- Analysis of real-world cases of market abuse and enforcement actions
- Group discussions and exercises on identifying potential market abuse scenarios

- Developing action plans for enhancing market integrity within organizations

## **Module 8: Compliance Assessment and Continuous Improvement**

- Conducting compliance assessments and audits
- Evaluating the effectiveness of internal controls and compliance programs
- Strategies for continuous improvement and adaptation to regulatory changes

### **Delivery Format:**

- Instructor-led sessions
- Interactive discussions and case studies
- Group activities and exercises
- Assessment quizzes or exams
- Course materials (handouts, presentations, reference materials)

### **Duration:**

The course is typically delivered over a period of 2-3 days, with each module comprising approximately 2-3 hours of instruction. The duration may vary based on the specific needs and preferences of the participants.

### **Target Audience:**

- Compliance officers
- Risk managers
- Legal professionals
- Internal auditors
- Financial analysts
- Executives and directors of listed companies
- Anyone involved in regulatory compliance and market surveillance roles within financial institutions

### **Assessments.**

**Forum** 5% Mandatory

**Midterm Exam:** > 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

TBA

## **CODE: COM104 COMPLIANCE- CUSTOMER/INVESTOR PROTECTION**

### **Course Description:**

This course offers a comprehensive overview of the Markets in Financial Instruments Directive (MiFID) and the Markets in Financial Instruments Regulation (MiFIR) with a focus on customer and investor protection. Participants will gain a deep understanding of the regulatory framework, obligations, and best practices for ensuring the protection of clients and stakeholders with investment interests under MiFID II and MiFIR.

### **Course Objectives:**

- Understand the key principles and objectives of MiFID II and MiFIR.
- Identify the regulatory requirements and obligations related to customer and investor protection.
- Recognize the impact of MiFID II and MiFIR on market participants and investment services.
- Implement effective compliance measures and internal controls to ensure adherence to MiFID II and MiFIR requirements.
- Develop strategies for enhancing customer and investor protection within financial institutions.

### **Course Outline:**

#### **Module 1: Introduction to MiFID II and MiFIR**

- Overview of MiFID II and MiFIR directives
- Objectives and scope of the regulations
- Evolution from MiFID I to MiFID II and key changes

#### **Module 2: Client Classification and Suitability**

- Requirements for client categorization under MiFID II
- Obligations related to client suitability and appropriateness assessments
- Client disclosure requirements and transparency obligations

#### **Module 3: Best Execution and Order Handling**

- Best execution principles and obligations for investment firms
- Requirements for order handling and execution policies
- Monitoring and reporting of execution quality

#### **Module 4: Investor Protection and Product Governance**

- Product governance requirements under MiFID II
- Assessment of target market and distribution strategies
- Product intervention powers and measures for investor protection

#### **Module 5: Conflicts of Interest Management**

- Identification and management of conflicts of interest
- Disclosure requirements for conflicts of interest
- Measures to mitigate conflicts and ensure fair treatment of clients

### **Module 6: Transaction Reporting and Transparency**

- Transaction reporting obligations under MiFIR
- Requirements for pre and post-trade transparency
- Data reporting and publication obligations for investment firms

### **Module 7: Compliance Monitoring and Surveillance**

- Implementing compliance monitoring programs
- Surveillance techniques for detecting market abuse and misconduct
- Reporting and escalation procedures for suspicious activities

### **Module 8: Regulatory Enforcement and Penalties**

- Overview of regulatory enforcement actions under MiFID II and MiFIR
- Penalties for non-compliance with regulatory requirements
- Case studies of enforcement actions and lessons learned

### **Delivery Format:**

- Instructor-led sessions
- Interactive discussions and case studies
- Group activities and exercises
- Assessment quizzes or exams
- Course materials (handouts, presentations, reference materials)

### **Duration:**

The course is typically delivered over a period of 2-3 days, with each module comprising approximately 2-3 hours of instruction. The duration may vary based on the specific needs and preferences of the participants.

### **Target Audience:**

- Compliance officers
- Risk managers
- Legal professionals
- Investment advisors
- Financial analysts
- Executives and directors of investment firms
- Anyone involved in regulatory compliance and client services within financial institutions

### **Assessments.**

**Forum** 5% Mandatory

**Midterm Exam:** ✂ 40% (Recommendation 30%)

**Final Exam:** 30-40%. (Recommendation 40%)

**Quizzes Multiple Choice:** 25 % (adjustable)

## **BIBLIOGRAPHY**

TBA



