

Course Catalog

Certificate Program Courses

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European Business University of Luxembourg
Wiltz Campus | Online Campus

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INTRODUCTION

This is a full course syllabi for the undergraduate course below. Unless mentioned otherwise, course scheduling, course structure, as well as course evaluation are standardized for all undergraduate 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 Bachelor 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 undergraduate 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. Undergraduate 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 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 undergraduate 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 undergraduate level address primarily the thinking processes: Knowledge, Comprehension, Application, and Analysis.

The overall learning of the courses at the undergraduate program corresponds to the level descriptors of the European Qualifications Framework (EQF) for first cycle qualification. The overall learning of the undergraduate 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

Course evaluation: Study Load per 10 ECTS course	Total 270 hrs.
- Lectures: one hour per week for (13 weeks)	13 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

Course evaluation: Study Load per 5 ECTS course	Total 156 hrs.
- Lectures: one hour per week for (13 weeks)	13 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: CP100 - BUSINESS MANAGEMENT I & II (10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

1. To identify and describe the influence of the environments created by the economy, technology, competition, diversity, global opportunities, and social responsibility.
2. 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.
3. 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.
4. To describe the management role of acquiring and retaining human resources and creating a supportive work environment.
5. To explain the marketing function and describe the concepts and processes involved in designing product strategy, promotion strategy, distribution strategy, and pricing strategy.
6. To explore the ways of using technology to manage information and to understand accounting's role in managing financial information.
7. 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:

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;

2. Describe various business ownership forms;
3. Acquire information about starting your own business;
4. Explain management functions;
5. Acquire a vocabulary for further study of business subjects;
6. Describe the importance of marketing activities;
7. Explain the challenges facing management;
8. Identify basic long and short-term financial planning techniques;
9. Describe how organizations protect themselves against potential losses;
10. Identify and apply business laws as they affect business;
11. Discuss international trade and markets.

Learning Outcomes: 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; SCQF Level 9 characteristics. 1, 2, 3, 5	YES	✓		✓	✓

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

Assessments

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

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- 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 University Press

CODE: CP101 - HUMAN RESOURCE MANAGEMENT I & II (10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Discuss the key functions and defining characteristics of HRM as a mechanism to add a competitive advantage to the organisation.
2. Examine the resourcing strategies and processes that an organisation employs commenting on the contribution made by the HRM function to the process.
3. Illustrate the role of HRM in the process of performance management and the development of employees.
4. Apply theories of motivation, leadership and authority to address people-related issues in an organization - Analyze cases related to people management.
5. Identify trends and challenges for HRM in the global organizational context
6. Demonstrate the ability to work in diverse teams to provide effective solutions to HR problems.
7. Analyse and apply concepts to explore a range of problems and operational issues that may be encountered within the professional framework of HRM.

8. Apply knowledge to create, critique, and/or improve HR tools (e.g., a resume, a job ad, a performance evaluation sheet)
9. Evaluate evidence synthesised from a range of diverse sources and develop rational arguments supported by reliable and validated sources of information.
10. 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.

Learning Outcomes: 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. (Characteristic 1)	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. (Characteristic 1)	Yes	X			
L3	Evaluate evidence synthesised from a range of diverse sources and develop rational arguments supported by reliable and validated sources of information. (Characteristic 3)	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. (Characteristic 2)	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. (Characteristic 5)	No				X

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

Assessments.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

CODE: CP102 - FINANCIAL ACCOUNTING I & II (10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. 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.
2. Explain and differentiate between the methods of accounting and the accounting for merchandising companies and inventories.
3. Prepare the multi step income statement, explain the objectives and purposes of this statement and the articulation of this statement with the other components of the financial statements.
4. 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.

5. Identify and explain all of the fundamental accounts that comprise revenue, assets, liabilities and stockholders' equity.

6. 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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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 profits what you want them to be. • Perks, R. (1995) Accounting and Society.

CODE: CP103 - BUSINESS ETHICS I & II (10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

1. Understanding the basic concepts of ethics and its role in business, entrepreneurship and economy
2. Apply ethical principles in the process of leadership and decision-making
3. Become familiar with the benefits of corporate social responsibility in the context of globalized economic and social relations
4. Identify consequences of unethical business activities
5. 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:

1. To understand main types of ethical violations and consequence of their influence on business practice, economy and society in general;
2. Prove criteria of employees' ethical behavior in decision making in conflict situations (cases of business ethics commissions);
3. To use decision-making models in ethical dilemmas and situations in the workplace;
4. To classify and define stakeholders interests in social, marketing problems of the company taking into account the ethical dilemmas of business;
5. To prove the need for practical realization of initiatives of CSR.

After taking the course of Business Ethics students should be able to:

1. Identify reasons of emergence of Business Ethics and CSR concepts and the main stages of their genesis;

2. Explore problems, opportunities and methods of formation of ethical and morality behavior of personnel;
3. Discuss possibilities of regulation of ethical violations and counteraction of corruption in the organization;
4. Recognise the effects and potential of CSR
5. 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;
6. 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.
7. Understand how the management of the company can stimulate successful interaction with shareholders and stakeholders;
8. Develop the ability to judge the morality of business practices and recognize the importance of ethics in the business environment
9. Develop an understanding of personal responsibility in decision making.

Learning Outcomes: 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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)
5% - Merits
40% - Final Exam

BIBLIOGRAPHY

- Hutchings, K. (2010) Global Ethics. An Introduction, Polity: Cambridge • Kevin Gibson, Ethics and Business: An Introduction. Cambridge University Press, 2007.

CODE: CP1/C - CASES IN GENDER EQUALITY(10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Understand and engage with central debates in the field of Women's and Gender Studies.
2. Define and apply basic terms and concepts central to this field.
3. Apply a variety of methods of analyzing gender in society, drawing upon both primary and secondary sources.

4. Apply concepts and theories of Women's and Gender Studies to life experiences and historical events and processes.
5. Communicate effectively about gender issues in both writing and speech, drawing upon Women's and Gender Studies scholarship and addressing a public audience

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand and engage with central debates in the field of Women's and Gender Studies.	NO	X	X		
L2	Define and apply basic terms and concepts central to this field.	YES	X	X	X	X
L3	Apply a variety of methods of analyzing gender in society, drawing upon both primary and secondary sources.	YES	X	X	X	X
L4	Apply concepts and theories of Women's and Gender Studies to life experiences and historical events and processes.	YES	X	X	X	X
L5	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: CP109 - WOMEN AND LEADERSHIP

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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	Knowledge and understanding of the leadership role and basic terminology.	Yes	X			
L2	Practice applied knowledge , use of techniques for improvement of personal leadership practice	Yes		x	x	

L3	Generic cognitive skills: being able to apply the divergent leadership approaches	Yes	x		x	
L4	Communication: 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.

50% - Classwork (review questions, homework, weekly quizzes, and other related activities)

20% - Midterm Exam

30% - Final Exam

BIBLIOGRAPHY

- LEADERSHIP- Theory and Practice. 7th Edition. By Peter G. Northouse. Sage.

CODE: CP200 - CUSTOMER RELATIONS MANAGEMENT (5ECTS)

COURSE DETAILS

Course level: Undergraduate
Course category: Core requirement
Course credits: 5
Course duration: 13 weeks
Total contact hours: 19
Total exam hours: 2
Total study hours: 115
Language of instruction: English

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

COURSE OVERVIEW

This course examines customer relationship management (CRM) and its application in marketing, sales, and service. Effective CRM strategies help companies align business process with customer centric strategies using people, technology, and knowledge. Companies strive to use CRM to optimize the identification, acquisition, growth and retention of desired customers to gain competitive advantage and maximize profit. Anyone interested in working with customers and CRM technology and would like to be responsible for the development of any major aspect of CRM will find this course beneficial.

COURSE OBJECTIVES

Understand the fundamentals of CRM, which include:

- customer behavior, relationship marketing, customer satisfaction, loyalty, customer defection;
- key concepts, such as Sales Management, Closed Loop Marketing, Drip Marketing;
- CRM impact on sales and marketing strategies;
- data, information and technology;
- privacy, ethics: consumer and organization privacy concerns;
- ways unsatisfied customers may use Internet to bring disrepute to company brand and products;
- ways companies may use Technology including Internet to support corporate CRM strategy;

The role of CRM in managing customers as critical assets

LEARNING CONTENT AND OUTCOMES

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

Learning Outcomes: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
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L1	Critically understand the different types of consumer buying behavior.	Yes	X	X	X	
L2	Recognize the stages of the consumer buying decision process and understand how the process relates to different types of buying decisions.	Yes	X		X	
L3	Explore and evaluate how personal factors may affect the consumer buying decision process.	YES	X	X	X	X
L4	Learn and understand about the psychological factors that may affect the consumer buying decision process.	Yes	X		X	X
L5	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Explain the role of the organisation's financial managers in realizing these strategic objectives.
2. 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.
3. Understand how risk and the cost of capital impact on investment appraisal, and explain how such factors affect the value of a capital project.
4. Explain how the corporation's capital structure, payout policy and risk policy impact upon investment decisions.
5. Have good understanding of, and be able to discuss current topical issues under debate in the world of corporate finance.

Learning Outcomes: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
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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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

- Jean Tirole, "The Theory of Corporate Finance", Princeton university 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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Demonstrate knowledge of macroeconomic concepts by explaining them using appropriate terminology
2. Demonstrate knowledge of macroeconomic theories by analysing their assumptions and differences,
3. Demonstrate understanding of macroeconomic models by describing relationships among macroeconomic variables,
4. Demonstrate knowledge and understanding of current macroeconomic problems by applying theories to concrete cases,
5. Demonstrate and communicate an understanding of economic Policies,
6. Demonstrate and communicate an understanding of the European Union as an economic Bloc.

Learning Outcomes: 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 concepts by explaining them using appropriate terminology	Yes	X	X	X	X
L2	Demonstrate knowledge of macroeconomic theories by analysing their assumptions and differences,	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate
Course category: Core requirement
Course credits: 5
Course duration: 13 weeks
Total contact hours: 19
Total exam hours: 2
Total study hours: 115
Language of instruction: English

Pre-requisites	N/A
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:

1. Demonstrate an understanding of the global trade environment
2. Demonstrate a critical understanding of the concepts and principles of international trade
3. Identify and evaluate the exchange rates and interest rates impacts on global trade
4. Critically analyse the concept of balance of trade

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Demonstrate an understanding of the global trade environment	Yes	X	X		X

L2	Demonstrate a critical understanding of the concepts and principles of international trade	Yes	X	X	X	X
L3	Identify and evaluate the exchange rates and interest rates impacts on global trade	Yes	X	X		X
L4	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. To apply theory to practical situations/cases
2. To develop and analyze a business plan based on a business case
3. To improve analytical skills
4. To learn the analytical frameworks used to assess decisions that entrepreneurs and managers face

Learning Outcomes: 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
L3	To improve analytical skills	Yes	X	X		

L4	To learn the analytical frameworks used to assess decisions that entrepreneurs and managers face	Yes		X		X
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A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

Assessments.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Explain, using detailed examples, how the marketing mix operates within different organisational settings.
2. Critically evaluate, using detailed examples, how a range of external factors can influence/impact upon marketing operations.
3. Debate ethical issues relating to marketing operations.
4. Explain the relevance of branding to both products and services.
5. Evaluate evidence synthesised from a range of diverse sources.
6. Develop rational arguments supported by reliable and validated sources of information.
7. Engage in critical self-reflection to help identify both strengths and areas for further development.
8. Develop their communication skills.
9. Demonstrate their ability to be independent and take responsibility for their actions.
10. Develop their time management skills able to meet challenging deadlines.

Learning Outcomes: 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.

55% - Classwork (review questions, homework, eweekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

- Calkins, Breakthrough Marketing Plans (Palgrave Macmillan, 2008)

CODE: CP300- QUANTITATIVE BUSINESS METHODS, I & II (10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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 undergraduate 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:

1. Describe basic statistical techniques for data collection, presentation and analysis.
2. Critically review the collection, presentation and analysis of data.
3. Understand and explain how to tackle business problems through the use of statistical techniques.
4. Apply statistical techniques to data.
5. Discuss the results of the application of statistical techniques to data in written reports and/or oral presentations.

Learning Outcomes: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
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L1	Describe basic statistical techniques for data collection, presentation and analysis.	No	X		x	
L2	Understand and explain how to tackle business problems through the use of statistical techniques.	Yes	X	x		
L3	Critically review the collection, presentation and analysis of data.	Yes	x	X		
L4	Apply statistical techniques to data.	No	x	x		x
L5	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Define the term marketing and explain its role and importance in an individual firm and the overall economy.
2. Understand the importance of strategic marketing and know the basic outline for a marketing plan:
 - o Analyze the external environment to identify opportunities or challenges to a business.
 - o Identify and classify marketing segments and targets, demonstrating the use of marketing research techniques.
 - o Create and use a mission statement, SWOT, Ansoff analysis and SMART goals.

3. 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.
4. Recognize the importance of marketing in an organization, how marketing relates to other business functions, and the role of marketing in society at large.
5. Select, analyze and define a target market for a selected product or service.
6. 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.)
7. Evaluate/analyze the marketing strategy for an existing product or services.
8. Know the basic marketing concepts and theories.

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Knowledge and understanding of the marketing role and basic marketing terminology.	Yes	X			
L2	Practice applied knowledge , use of techniques internal and external analysis.	Yes		x	x	
L3	Generic cognitive skills: being able to apply the market research methods – quantitative and qualitative	Yes	x		x	
L4	Communication: present and convey information related to marketing 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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

- R. Kerin, S. Hartley & W. Rudelius, Marketing, 11th edition, Irwin/McGraw-Hill.

CODE: CP302 - COMMUNICATION SKILLS, (10 ECTS)

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Listen, read and comprehend
2. Paraphrase and summarize information
3. Distinguish between facts, assumptions, and opinions
4. Respond appropriately in a clear and concise fashion (oral and written)
5. Synthesize information from different sources
6. Organize information to support conclusions
7. Use an appropriate format and business writing style and apply conventions to Standard English
8. 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:

1. analyse audiences and define objectives to create targeted messages
2. write coherent and convincing, reader-friendly business documents
3. craft clear, focused and engaging business presentations
4. critically assess your own and others' business communications

Learning Outcomes: 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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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:

1. Develop an understanding of and an appreciation for the production and operations management function in any organization.
2. To understand the importance of productivity and competitiveness to both organizations and nations.
3. To understand the importance of an effective production and operations strategy to an organization.
4. To understand the various production and operations design decisions and how they relate to the overall strategies of organizations.
5. To understand the importance of product and service design decisions and its impact on other design decisions and operations.
6. Obtain an understanding of quality management practice in organizations and how total quality management and six-sigma facilitate organizational effectiveness.
7. To understand the relationship of the various planning practices of capacity planning, aggregate planning, project planning and scheduling.

8. To understand the roles of inventories and basics of managing inventories in various demand settings.
9. To understand contemporary operations and manufacturing organizational approaches and the supply-chain management activities and the renewed importance of this aspect of organizational strategy.

Learning Outcomes: 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	X	x	x	x
L2	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		
L3	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		
L4	Learning a skill set for continuous improvement	Yes	x	x		x
L5	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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 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:

1. 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.
2. Recognize the different stages of industry evolution and recommend strategies appropriate to each stage.
3. 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.
4. Demonstrate understanding of the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios.
5. Distinguish the two primary types of competitive advantage: cost and differentiation and formulate strategies to create a cost and/or a differentiation advantage.
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.
7. Formulate strategies for exploiting international business opportunities including foreign entry strategies and international location of production.
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.
9. Make recommendations for horizontal changes in the boundary of the firm based on an understanding of the conditions under which diversification creates value.
10. Demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.
11. Recognize strategic decisions that present ethical challenges and make appropriate recommendations for ethical decision-making.

Learning Outcomes: 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	
L6	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		
L7	Formulate strategies for exploiting international business opportunities including foreign entry strategies and international location of production.	Yes			X	
L8	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
L9	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
L10	Demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.	Yes			X	
L11	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.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam

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

CODE: CP309 - BUSINESS & SUSTAINABILITY

COURSE DETAILS

Course level: Undergraduate

Course category: Core requirement

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

Learning Outcomes: 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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

SPECIALIZATION COURSES

SPECIALIZATION COURSE

CODE: CP104 - INTRODUCTION TO PYTHON

COURSE DETAILS

Course level: Undergraduate
 Course category: Core requirement
 Course credits: 10
 Course duration: 13 weeks
 Total contact hours: 38 (13hrs 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

Learning Outcomes: 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

L2	Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes	YES	x	x	x	x
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A – Knowledge and Understanding B – Intellectual Skills C – Practical Skills D – Transferable Skills

Assessments.

55% - Classwork (review questions, homework, weekly quizzes, and other related activities)

5% - Merits

40% - Final Exam/Project

BIBLIOGRAPHY

Bibliography: TBD

CODE: CP108 - PLUTUS/HASKELL I

Course level: Undergraduate

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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: Undergraduate

Course category: Core requirement

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

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

Assessments.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

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

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: Undergraduate
Course category: Specialization Course
Course credits: 10
Course duration: 13 weeks
Total contact hours: 38 (13hrs 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.

Learning Outcomes:		Assessed in this module?	A	B	C	D
On successful completion of the course the candidate 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	Identify the different steps needed to manage projects into successful completion	YES			✓	✓

3						
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.

20% - Weekly Quizzes

10% - Weekly Forum and Discussion Board

10% - Merits

25% - Midterm Quiz

35% - Final Quiz

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 (4th 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:	Undergraduate
Course category:	Specialization Course
Course credits:	10
Course duration:	13 weeks
Total contact hours:	38 (13hrs 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:		Assess ed in this module?	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.

20% - Weekly Quizzes

10% - Weekly Forum and Discussion Board

10% - Merits

25% - Midterm Quiz

35% - Final Quiz

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 (4th 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:	Undergraduate
Course category:	Core requirement
Course credits:	10
Course duration:	13 weeks
Total contact hours:	38 (13hrs 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

<p>Learning Outcomes:</p> <p>On successful completion of the course the candidate will be able to:</p>	<p>Assessed in this module?</p>	<p>A</p>	<p>B</p>	<p>C</p>	<p>D</p>
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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.

20% - Weekly Quizzes

10% - Weekly Forum and Discussion Board

10% - Merits

25% - Midterm Quiz

35% - Final Quiz

BIBLIOGRAPHY

- A Guide to the Project Management Body of Knowledge (PMBOK Guide). 6th 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 (4th 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:	Undergraduate
Course category:	Specialization Course
Course credits:	10
Course duration:	13 weeks
Total contact hours:	38 (13hrs 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:		Assessed in this module?	A	B	C	D
On successful completion of the course the candidate will be able to:						
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	YES	✓			

	PMBOK					
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.

20% - Weekly Quizzes

10% - Weekly Forum and Discussion Board

10% - Merits

25% - Midterm Quiz

35% - Final Quiz

BIBLIOGRAPHY

- A Guide to the Project Management Body of Knowledge (PMBOK Guide). 6th 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 (4th 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

DATA SCIENCE AND AI

SPECIALIZATION COURSE

CODE: MSDA 100 - DATA SCIENCE IN REAL LIFE

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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

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

Assessments.

55% - Classwork (review questions, homework, essay, and other related activities) 5% - Merits
40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

SPECIALIZATION COURSE

CODE: MSDA 104 - PYTHON FOR DATA SCIENCE

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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

Students will review Python for Data Science with this introductory course and familiarize themselves with programming. Carefully crafted by IBM, 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

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module ?	A	B	C	D
L 1	Write a Python program by implementing concepts of variables, strings, functions, loops, conditions	YES	x	x	x	x

L 2	Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes	YES	x	x	x	x
L 3	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.

55% - Classwork (review questions, homework, essay, and other related activities) 5% -

Merits

40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

SPECIALIZATION COURSE

CODE: MSDA 201 - MACHINE LEARNING

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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 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

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

Learning Outcomes: 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.

55% - Classwork (review questions, homework, essay, and other related activities) 5% - Merits
 40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

SPECIALIZATION COURSE

CODE: MSDA 300 - INTRODUCTION TO ARTIFICIAL INTELLIGENCE

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Meaning, purpose, scope, stages, applications, and effects of Artificial Intelligence	YES	x	x	x	x
L	Fundamental concepts of Machine Learning and Deep	YES	x	x	x	x

2	Learning					
L 3	Difference between supervised, semi-supervised and unsupervised learning	YES	x	x	x	x
L 4	Machine Learning workflow and how to implement the steps effectively	YES	x	x	x	x
L 5	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.

55% - Classwork (review questions, homework, essay, and other related activities) 5% -

Merits

40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

FINANCIAL MARKETS

SPECIALIZATION COURSE

CODE: MSF103 - FIXED INCOME SECURITIES AND CREDIT MARKETS

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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 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.

Course description:

- 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

COURSE OUTCOMES

Course outcomes: 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 Rev 6/2020

COURSE CONTENT

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: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Identify and distinguish between the different types of fixed income securities;	NO	X	X	X	X
L 2	Demonstrate how to apply derivative instruments to hedge the risks and enhance the returns of fixed income securities;	YES	X	X	X	X
L 3	Make use of analytic tools in bond portfolio management and interest rate risk management;	YES	X	X	X	X
L 4	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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

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

SPECIALIZATION COURSE

CODE: MSF 200 - RISK MANAGEMENT IN FINANCIAL MARKETS

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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.

COURSE OBJECTIVES

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.

COURSE OUTCOMES

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

COURSE CONTENT

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: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	Understand the meaning of risk and the ethical considerations	NO	X	X	X	X
L 2	Know the role and purpose of risk management.	NO	X	X	X	X

L 3	Be conversant with the core elements of the risk management process	YES	X	X	X	X
L 4	Understand the different categories of risk.	YES	X	X	X	X
L 5	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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

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

SPECIALIZATION COURSE

CODE: MSF201- FINANCIAL MARKETS AND INSTITUTIONS

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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.

COURSE OBJECTIVES

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

COURSE OUTCOMES

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.

COURSE CONTENT

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: 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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

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

SPECIALIZATION COURSE

CODE: MSF301 - CORPORATE INVESTMENT AND FINANCIAL POLICY

COURSE DETAILS

Course level: Graduate

Course category: Specialization course

Course credits: 4

Course duration: 10 weeks

Total contact hours: 30 (10hrs 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.

COURSE OBJECTIVES

- 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.

COURSE OUTCOMES

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

COURSE CONTENT

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: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L 1	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
L 2	Employ various capital budgeting techniques in decision-making	YES	X	X	X	X

L 3	Apply option pricing models including real options methods, to evaluate corporate investments	YES	X	X	X	X
L 4	Utilise leading techniques in the valuation of merger and acquisition strategies	YES	X	X	X	X
L 5	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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

Bibliography: Foundations of Financial Management, Block & Danielsen, McGraw-Hill

FINTECH AND BLOCKCHAIN

SPECIALIZATION COURSE

CODE: BSD101 - INTRODUCTION TO DIGITAL CURRENCIES, ICOs& MARKETS

COURSE DETAILS

Course level: Undergraduate

Course category: Specialization Course

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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.

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 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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

CODE: BSD102 - CYBER SECURITY RISK REGULATION

COURSE DETAILS

Course level: Undergraduate

Course category: Specialization Course

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

Learning Outcomes: 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.

55% - Classwork (review questions, homework, essay, and other related activities)
5% - Merits
40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

CODE: BSDL200 - BLOCKCHAIN TECHNOLOGY FUNDAMENTALS

COURSE DETAILS

Course level: Undergraduate

Course category: Specialization Course

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

Learning Outcomes: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
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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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

Bibliography: Foundations of Financial Management, Block & Danielsen, McGraw-Hill

SPECIALIZATION COURSE

CODE: BSDL300 -PRINCIPLES IN INNOVATION DISRUPTION

COURSE DETAILS

Course level: Undergraduate

Course category: Specialization Course

Course credits: 10

Course duration: 13 weeks

Total contact hours: 38 (13hrs 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

Learning Outcomes: 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, Industryplayers 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.

55% - Classwork (review questions, homework, essay, and other related activities)

5% - Merits

40% - Final Exam

BIBLIOGRAPHY

Bibliography: TBD

