Course Catalogue

Last revised: July, 2025

European Business Institute of Luxembourg

Wiltz Campus | Online Campus

TABLE OF CONTENTS

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: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours: 2
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)
Language of instruction: English

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

COURSE OVERVIEW

The Course CP105 Project Management (CAPM I) is the first course in a series of 4 during which you will be introduced to 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 definitions 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: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
L1 Define what a project is and what project management is about	YES	✓			
L2 Establish a Return-on-Investment Policy and conduct project selection	YES			✓	✓
L3 Identify the different steps needed to manage projects into successful completion	YES			✓	✓
L4 Apply different principles to define and plan projects	YES	✓		✓	✓
L5 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	✓		✓	✓

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

Assessments

Forum: 5% Mandatory

Midterm Exam: ⋟ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● 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: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours: 2
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments +4hrs Research + 100 Preparation)
Language of instruction: English

Pre-requisites	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 to 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 them all in 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: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
L1	Apply the principles of uncertainty and probability on project planning, duration and cost estimation and introduce methods like PERT and Monte Carlo	YES	✓		✓	
L2	Explain the principles of earned value management and calculate the estimated project duration and final cost	YES	✓		✓	✓
L3	Evaluate resource utilization, apply resources levelling and smoothing to remove overutilization and create the resource and budget baselines	YES			✓	✓
L4	Identify the elements related to quality, procurement, stakeholders and communication	YES	✓	✓		
L5	Explain the principles of Agile and Critical Chain Project Management	YES	✓		✓	

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

Assessments.

Forum: 5% Mandatory

Midterm Exam: ⮞ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● 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: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours: 2
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments +4hrs Research + 100 Preparation)
Language of instruction: English

Pre-requisites	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 to 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

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Memorize the inputs, tools and techniques and outputs of the processes related to the knowledge areas Integration and Scope Management	YES	✓			
L2	Apply the tools and techniques of the processes related to the different knowledge areas	YES	✓		✓	✓
L3	Recite the content related to the introduction of project management, the role of the project manager and the project environment	YES	✓			
L4	Describe the importance of the PMI and the CAPM certification, the different domains of the PMBOK and the content of the chapters	YES	✓			
L5	Identify the different knowledge areas as defined in the PMBOK and prepare for the CAPM Certification Exam	YES	✓	✓		

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

Assessments

Forum: 5% Mandatory

Midterm Exam: ⌄ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

●   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: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours: 2
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments +4hrs Research + 100

Preparation)

Language of instruction: English

Pre-requisites	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 to the "Art of Project Management".

During this course module, you will continue learning about the PMI Certification of Certified Associate in Project Management abbreviated as CAPM.

After learning about the tools and techniques, terms and terminologies and important concepts in CAPM I and II we will now look deeper into the certification program and knowledge you need to pass the CAPM exam organized by the Project Management Institute by introducing the remaining chapters and knowledge areas.

The main document that we will work with and refer to when describing the different elements is the Guide to the Project Management Body of Knowledge also referred to as the PMBOK®.

This course will prepare you to take the exam by reviewing all topics included in the PMBOK and passing test quizzes that are set up per section and that will provide you with typical questions as you can find in the real exam.

At the end of this course module CP305a Project Management (CAPM IV) you will have the opportunity to test your knowledge on a real 3-hour exam simulation covering 150 questions.

COURSE CONTENT

In the following overview, you will find the main topics that will be taught during the successive lessons.

● Review chapters 1 to 5 of the PMBOK

● PMBOK Chapter 6 - Project Schedule Management - Processes

● PMBOK Chapter 6 - Project Schedule Management - Tools and Techniques

● PMBOK Chapter 7 - Project Cost Management

● PMBOK Chapter 8 - Project Quality Management

- PMBOK Chapter 9 - Project Resources Management

- PMBOK Chapter 10 - Project Communications Management

- PMBOK Chapter 11 - Project Risk Management

- PMBOK Chapter 12 - Project Procurement Management

- PMBOK Chapter 12 - Project Stakeholder Management, Code of Conduct and Review of all chapters to prepare for the final quiz

- Midterm Quiz

- Final Quiz = Certification exam simulation, 150 questions to complete in 3 hours.

LEARNING CONTENT AND OUTCOMES

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

- Memorize the inputs, tools and techniques and outputs of the processes related to the knowledge areas Schedule, Cost, Quality, Resources, Communication, Risk, Procurement and Stakeholder Management

- Apply the tools and techniques of the processes related to the different knowledge areas

- Analyze the links between the different process part of the knowledge areas as defined in the PMBOK

- Summarize the different processes and to which project management process step they belong

- Diagram the processes and their links

- Prepare for the CAPM Certification exam as determined by the PMI

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	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	✓			
L2	Apply the tools and techniques of the processes related to the different knowledge areas	YES	✓		✓	✓

				A	B	C	D
L3	Analyze the links between the different process part of the knowledge areas as defined in the PMBOK	YES	✓				
L4	Summarize the different processes and to which project management process step they belong	YES	✓				
L5	Prepare for the CAPM Certification exam as determined by the PMI	YES	✓	✓			

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

Assessments

Forum: 5% Mandatory

Midterm Exam: ➢ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

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● Managing Projects, Prentice Hall 2002 by David Boddy, ISBN: 0272-65128-5

CERTIFICATE IN DIGITAL INTELLIGENCE AND TECHNOLOGY INNOVATION COURSES

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2. [CS100: Introduction To Cybersecurity](#)
3. [CRO100: Core Robotics & Control](#)
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ROBOTICS AND AUTONOMOUS SYSTEMS CERTIFICATE

Program Overview:

This fully online certificate EQF Level 6 program equips students with a strong theoretical and practical foundation in robotics and autonomous systems. Through simulation-based labs, collaborative projects, and real-world problem-solving, students gain hands-on experience in designing, controlling, and optimizing robotic systems. The two-year curriculum (three terms per year) culminates in a capstone project, where students tackle a complete robotics challenge, integrating perception, control, and decision-making.

Year 1 – Foundational Concepts

Term I: Core Robotics & Control

1. Introduction to Robotics

Covers Robot Kinematics, Dynamics, Sensors, Actuators, and Control Systems. Students explore diverse robotic applications through simulations.

Learning Outcomes:

- Describe robotic subsystems and their functions.

- Apply kinematic and dynamic principles to robot motion.

- Implement basic control strategies in simulation.

- Compare robotic systems across industries.

2. Introduction to Robotics Control Design Techniques

Examines Classical and Modern Control Theory, System Modeling, and Stability Analysis.

Learning Outcomes:

- Model dynamic systems using differential equations.
- Design feedback controllers (PID, state-space).
- Assess system stability and transient response.
- Simulate and validate control strategies.

Term II: Robot Autonomy Fundamentals

3. Principles of Robot Autonomy I

Focuses on Sensor Integration, Autonomy Algorithms, and Real-Time Control for Basic Navigation.

Learning Outcomes:

- Integrate sensors (LiDAR, IMU, cameras) into robotic systems.
- Implement autonomy algorithms (e.g., obstacle avoidance).
- Develop real-time control loops for independent operation.
- Evaluate robot performance in simulated environments.

4. Principles of Robot Autonomy II

Advances to Motion Planning, Decision-Making, and Human-Robot Interaction.

Learning Outcomes:

- Design path-planning algorithms (A*, RRT).
- Implement decision-making under constraints.
- Analyze human-robot collaboration scenarios.

- Simulate complex autonomous behaviors.

Term III: Adaptive Control & Decision-Making

5. Optimal and Learning-Based Control

Combines Optimal Control (LQR, MPC) with Machine Learning for Adaptive Systems.

Learning Outcomes:

- Apply optimal control to dynamic environments.

- Integrate reinforcement learning into control loops.

- Compare classical vs. learning-based approaches.

- Optimize performance under uncertainty.

6. Decision Making Under Uncertainty

Covers Probabilistic Modeling, Bayesian Reasoning, and Risk Assessment.

Learning Outcomes:

- Develop probabilistic models for robotic decisions.

- Implement decision trees and Bayesian networks.

- Quantify risk in real-world autonomy tasks.

- Simulate decision-making in uncertain environments.

Year 2 – Advanced Topics & Capstone

Term I: Advanced Control & Dynamics

7. Advanced Feedback Control Design

Focuses on Robust/Non-Linear Control, Disturbance Rejection, and Stability.

Learning Outcomes:

- Design controllers for nonlinear systems.

- Analyze robustness and stability margins.

- Mitigate disturbances in high-precision tasks.

- Troubleshoot control systems in simulation.

8. Advanced Dynamics

Covers Multibody Systems, Lagrangian Mechanics, and Dynamic Simulation.

Learning Outcomes:

- Model complex robots using multibody dynamics.

- Simulate and analyze nonlinear behaviors.

- Apply dynamics to robot design optimization.

- Validate simulations against theoretical models.

Term II: Perception & State Estimation

9. Deep Learning for Computer Vision

Applies CNNs, Object Detection, and Semantic Segmentation to Robotics.

Learning Outcomes:

- Train CNNs for robotic vision tasks.

- Deploy object detection (YOLO, Faster R-CNN).

- Evaluate perception system performance.

- Integrate vision modules into autonomy stacks.

10. State Estimation and Filtering

Covers Kalman/Particle Filters and Multi-Sensor Fusion.

Learning Outcomes:

- Implement filtering for localization (EKF, UKF).

- Fuse heterogeneous sensor data (LiDAR+IMU).

- Quantify estimation accuracy in simulations.

- Improve perception in noisy environments.

Term III: Capstone Project

11. Capstone Project in Robotics Control and Perception

Students design, simulate, and deploy a virtual robot to solve a real-world challenge.

Learning Outcomes:

- Plan and execute a full robotics project lifecycle.

- Integrate perception, control, and decision-making.

- Troubleshoot and optimize system performance.

- Present results professionally (report/demo).

CYBERSECURITY PROFESSIONAL CERTIFICATE COURSES

CODE:CS100 INTRODUCTION TO CYBERSECURITY

Duration: 13 weeks
ECTS Credits: 4
Prerequisites:
No technical background required.
A basic understanding of computing and internet usage is recommended.

Course Overview:

This course introduces the fundamental concepts of cybersecurity, including key principles, threats, and defense mechanisms. Learners will gain a solid understanding of cryptography, network security, and risk management, setting the foundation for advanced topics in the program.

Course Objectives:

●   To provide a foundational understanding of cybersecurity concepts and principles.

●   To introduce learners to common cyber threats and attack vectors.

●   To explore the basics of cryptography, network security, and risk management.

●   To prepare learners for advanced cybersecurity topics.

Learning Outcomes:

By the end of this course, learners will be able to:

●   Define cybersecurity and explain its importance in protecting digital assets.

●   Identify common cyber threats, vulnerabilities, and attack vectors.

●   Understand the principles of cryptography and its role in securing data.

●   Explain network security fundamentals, including firewalls and intrusion detection systems.

●   Develop basic risk management strategies to mitigate cybersecurity risks.

Topic Outline:

1.   **Week 1-2: Cybersecurity Fundamentals**

●   Definition and importance of cybersecurity

●   Key concepts: confidentiality, integrity, availability (CIA triad)

- Types of cyber threats and threat actors

2. **Week 3-4: Cybersecurity Principles and Practices**

- Defense in depth

- Least privilege and zero trust models

- Security awareness and training

3. **Week 5: Cryptography Basics**

- Symmetric and asymmetric encryption

- Public key infrastructure (PKI)

- Hash functions and digital signatures

4. **Week 6: Midterm Exam**

- Covers Weeks 1-5 material

5. **Week 7-8: Network Security Fundamentals**

- Firewalls, VPNs, and intrusion detection systems (IDS)

- Secure network design principles

6. **Week 9-10: Risk Management**

- Risk assessment and mitigation strategies

- Business continuity and disaster recovery planning

7. **Week 11-12: Cybersecurity Tools and Technologies**

- Antivirus, anti-malware, and endpoint protection

- Security information and event management (SIEM)

8. **Week 13: Final Exam and Course Wrap-Up**

- Covers Weeks 7-12 material

Assessment:

- Weekly quizzes (40% of grade)

- Midterm exam (30% of grade)

- Final exam (30% of grade)

Resources and Support Links:

1. **Cybrary - Cybersecurity Fundamentals**
● Free training portal with beginner-friendly cybersecurity courses

● Link: Cybrary

2. **TryHackMe - Beginner Paths**
● Gamified labs and challenges to reinforce cybersecurity concepts

● Link: TryHackMe

● Cybersecurity Tools: A list of free and open-source tools for cybersecurity will be provided during the course, including Wireshark, Nmap, and John the Ripper.

● Cybersecurity News: Stay updated on recent developments in the field through sources such as:

○ Krebs on Security

○ The Hacker News

○ Cybersecurity & Infrastructure Security Agency (CISA)

CODE:CS200 CYBERSECURITY ATTACK AND DEFENSE FUNDAMENTALS

Duration: 13 weeks |
ECTS Credits: 4
Prerequisites: Completion of **CS100 Introduction to Cybersecurity**" or equivalent knowledge.

Course Overview:
This course explores common cyberattack techniques and defensive strategies. Learners will analyze malware, phishing, and network attacks while developing skills in vulnerability assessment, penetration testing, and incident response planning.

Course Objectives:
● To understand common cyberattack techniques and their impact.
● To develop defensive strategies to protect against cyber threats.
● To gain hands-on experience in vulnerability assessment and penetration testing.
● To create effective incident response plans.

Learning Outcomes:
By the end of this course, learners will be able to:
1. Analyze common cyberattack techniques, including malware, phishing, and network attacks.
2. Implement defensive strategies such as firewalls, IDS/IPS, and endpoint protection.
3. Conduct vulnerability assessments and penetration testing using industry-standard tools.
4. Develop and execute incident response plans to mitigate cybersecurity incidents.

Topic Outline:

1. **Week 1-2: Cyberattack Techniques**
○ Malware: viruses, worms, ransomware
○ Phishing, social engineering, and insider threats
2. **Week 3-4: Network Attacks**
○ Denial of Service (DoS) and Distributed Denial of Service (DDoS)
○ Man-in-the-middle (MITM) attacks
3. **Week 5: Web Application Attacks**
○ SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF)
○ OWASP Top 10 vulnerabilities
4. **Week 6: Midterm Exam**
○ Covers Weeks 1-5 material

5. **Week 7-8: Defensive Strategies**
    ○   Firewalls, IDS/IPS, and honeypots
    ○   Endpoint protection and secure coding practices
6. **Week 9-10: Vulnerability Assessment and Penetration Testing**
    ○   Tools: Nmap, Metasploit, Burp Suite
    ○   Ethical hacking methodologies
7. **Week 11-12: Incident Response Planning**
    ○   Incident detection, containment, and eradication
    ○   Post-incident analysis and reporting
8. **Week 13: Final Exam and Course Wrap-Up**
    ○   Covers Weeks 7-12 material

Assessment:

●   Weekly quizzes (40% of grade)
●   Midterm exam (30% of grade)
●   Final exam (30% of grade)

Resources and Support Links:

1. **OWASP Foundation - Web Security Resources**
    ○   Open-source platform offering tools and training for web application security
    ○   Link: OWASP
2. **Metasploit Framework**
    ○   Open-source penetration testing tool for practicing exploit development Link:
Metasploit

CODE:CS300 CYBERSECURITY COMPLIANCE FRAMEWORKS, STANDARDS & REGULATIONS

Duration: 13 weeks | **ECTS Credits:** 4

Prerequisites: Completion of **CS200 Cybersecurity Attack and Defense Fundamentals** or equivalent knowledge.

Course Overview:
This course focuses on cybersecurity compliance frameworks, standards, and regulations. Learners will explore NIST, ISO 27001, GDPR, and PCI-DSS, gaining the skills to implement, audit, and manage compliance programs effectively.

Course Objectives:
- To introduce learners to major cybersecurity frameworks and standards.
- To understand regulatory requirements such as GDPR and PCI-DSS.
- To develop skills in implementing and auditing compliance programs.
- To explore the role of governance in cybersecurity management.

Learning Outcomes:
By the end of this course, learners will be able to:
1. Explain major cybersecurity frameworks, including NIST and ISO 27001.
2. Understand regulatory requirements such as GDPR and PCI-DSS.
3. Implement and audit cybersecurity compliance programs.
4. Analyze the role of governance in managing cybersecurity risks.

Topic Outline:

1. **Week 1-2: Introduction to Cybersecurity Frameworks**
   - NIST Cybersecurity Framework (CSF)
   - ISO/IEC 27001 and 27002
2. **Week 3-4: Regulatory Requirements**
   - General Data Protection Regulation (GDPR)
   - Payment Card Industry Data Security Standard (PCI-DSS)
3. **Week 5: Industry-Specific Standards**
   - HIPAA for healthcare
   - CIS Controls for critical infrastructure
4. **Week 6: Midterm Exam**
   - Covers Weeks 1-5 material

5. **Week 7-8: Implementing Compliance Programs**
    ○   Policy development and enforcement
    ○   Employee training and awareness
6. **Week 9-10: Auditing and Certification**
    ○   Internal and external audits
    ○   Achieving ISO 27001 certification
7. **Week 11-12: Governance and Risk Management**
    ○   Role of governance in cybersecurity
    ○   Risk management frameworks
8. **Week 13: Final Exam and Course Wrap-Up**
    ○   Covers Weeks 7-12 material

Assessment:

-   Weekly quizzes (40% of grade)
-   Midterm exam (30% of grade)
-   Final exam (30% of grade)

Resources and Support Links:

1. **NIST Cybersecurity Framework (CSF)**
    ○   Official resources and guidelines for implementing the NIST CSF
    ○   Link: NIST CSF
2. **GDPR.eu - Free Resources**
    ○   Comprehensive guides and tools for understanding GDPR compliance
    ○   Link: GDPR.eu

CODE:CS400 - ADVANCED THREAT HUNTING AND INCIDENT RESPONSE

Week 1-2: Threat Hunting Fundamentals

- Proactive security; threat intelligence; IOCs

- *Lesson 1: Explaining Digital Forensics*

  ○ Forensics documentation and evidence acquisition

Week 3-4: Advanced Threat Hunting Techniques

- Behavioral analysis; SIEM and SOAR tools

- *Lesson 2: Implementing Secure Network Protocols*

  ○ Network operations, application protocols, remote access

Week 5: Malware Analysis
- *Lesson 3:* Static/dynamic analysis; reverse engineering basics

Week 6: Midterm Exam *(Covers Weeks 1–5)*

Week 7-8: Digital Forensics
- *Lesson 4:* Forensic tools; evidence preservation

Week 9-10: Incident Response Planning
- *Lesson 5:* Response plan development; team roles

Week 11-12: Post-Incident Activities
- Root cause analysis; reporting and lessons learned

- *Lesson 6: Implementing Cybersecurity Resilience*

○ Redundancy, backup, resiliency strategies

Week 13: Final Exam and Wrap-Up *(Covers Weeks 7–12)*

CPA PROGRAM

This online program will provide you with the requisite knowledge to sit for the Examinations administered for the Certified Public Accountant (CPA). Being a CPA means being a member of a professional order and the EBU Program is designed to encourage the development of critical thinking, analysis and communication skills. By facilitating personal growth and the ability to adapt and respond to a complex and changing environment, this EBU Certified Public Accountant program helps you acquire advanced knowledge in accounting, problem-solving skills, professional communication skills, research and analytical skills and related aspects of business.

Students have a scheduled 24 months to complete the online course (6 sections with each section having 3 courses per term). Some sections do not have to be completed consecutively. Once registered, you will have access to the EBU Online campus and global community of students. Your password and access information will be emailed to you in time for the start of class. The starting dates are October, January and March of each year. Live webinars conducted once a week for 1 hour with a Professor will take place generally between 16:00hrs – 18:00hrs CET. Discussion forums will take place during the 24 month program and participation is mandatory.

Upon successful passing of courses students will receive a European University CPA Completion Certificate and may proceed to obtaining country specific exams.

Important: Please be advised that for the CPA program - students MUST complete one section (all 3 courses) every term. The Scholarship requirement is that they must enrol in all three courses and pay a commitment fee for each - otherwise the scholarship is revoked.

EBU provides full scholarships for prospective students who wish to enrol with the payment of a €20 commitment fee per course for a total of €360 (18 courses) payable at €20 per course upon enrollment.

For more information:
https://ebi.lu/wp-content/uploads/2019/04/CPA-Certificate-Program-Overview.pdf

CPA PART I	CPA PART II	CPA PART III
SECTION 1 Financial accounting Business Law	SECTION 3 Public finance and taxation Financial management Financial reporting	SECTION 5 Business Strategy, governance and ethics Advanced Managerial Accounting

Corporate law		Advanced financial management
SECTION 2 Micro and Macroeconomics Managerial Accounting Entrepreneurship and communication	SECTION 4 Auditing and assurance Management information systems Quantitative analysis	SECTION 6 Advanced public finance and taxation Advanced auditing and assurance Advanced financial reporting

SECTION 1
Course Description

- **Financial accounting**:
 Financial Accounting introduces the candidate to the fundamentals of the regulatory framework relating to accounts preparation and to the qualitative characteristics of useful information. The syllabus then covers drafting financial statements and the principles of accounts preparation. The syllabus then concentrates in depth on recording, processing, and reporting business transactions and events. The syllabus then covers the use of the trial balance and how to identify and correct errors, and then the preparation of financial statements for incorporated and unincorporated entities. The syllabus then moves in two directions, firstly requiring candidates to be able to conduct a basic interpretation of financial statements; and secondly requiring the preparation of simple consolidated financial statements from the individual financial statements of group incorporated entities.

- **Business Law:**
Business Law is an introductory course on the different legal features that underlie business transactions. The course aims to provide students with the skills required to have a basic understanding of the various concepts found in Law. Students will begin by looking at the essential elements of the legal system which will lay down the foundations for the subsequent topics of the law of obligations, employment law and the formation and constitution of business organizations. This course, complemented by Corporate Law, will allow the students to have an adequate and sufficient manipulation of legal theories approaching the CPA exam.

- **Corporate law:**
The aim of the syllabus is to develop knowledge and skills in the understanding of the general legal framework, and of specific legal areas relating to business, recognising the need to seek further specialist legal advice where necessary. Corporate Law starts with an introduction to the overall legal system which underpin business transactions generally. The syllabus then covers a range of specific legal areas relating to various aspects of business of most concern to finance professionals. These are the law relating to employment and the law relating to companies. These laws include the formation and constitution of companies, the financing of companies and types of capital, and the day-to-day management, the administration and regulation of companies and legal aspects of insolvency law. The final section links back to all the previous areas. This section deals with corporate fraudulent and criminal behaviour.

SECTION 2

Course Description

- **Micro and Macroeconomics:**

Both microeconomics and macroeconomics play a role in business decisions and strategy formulation. Whether formulating strategy at the functional, business or corporate level, professional accountants must have a basic understanding of economics and the impact it has on business. This course introduces microeconomics and macroeconomics as the basis for making smart choices in life as consumers, businesspeople, investors, and informed citizens judging government policies. Microeconomics focuses on a cost/benefit analysis of all decisions. Topics include gains from trade, how prices coordinate choices, the roles of competition and monopoly, efficiency/equity trade-offs, government versus market failures, environmental policies, and income/wealth distributions. Macroeconomics focuses on the performance of market economies — measured by GDP growth, unemployment, and inflation — and appropriate roles for government monetary and fiscal policies. Topics include GDP, economic growth, business cycles, unemployment, inflation, money and exchange rates, government deficits, the national debt, globalization, and trade policy.

- **Managerial Accounting:**

The syllabus for Management Accounting introduces candidates to elements of management accounting which are used to make and support decisions. The syllabus starts by introducing the nature, the source and purpose of management information followed by the statistical techniques used to analyse data. Then the syllabus addresses cost accounting and the costing techniques used in business which are essential for any management accountant. The syllabus then looks at the preparation and use of budgeting and standard costing and variance analysis as essential tools for planning and controlling business activities. The syllabus concludes with an introduction to measuring and monitoring the performance of an organisation.

- **Entrepreneurship and communication:**

This course intends to equip the candidate with knowledge, skills and attitudes that will enable him/her to apply entrepreneurship knowledge in business and other environments. This course focuses on understanding basic entrepreneurial concepts, the entrepreneurial mindset, and developing entrepreneurial skills. The course emphasizes the entrepreneurial process and communication and the application of this process to a broad range of business contexts. The course also addresses creativity, securing resources, team building, communication, and leadership.

SECTION 3

Course Description

- **Public finance and taxation:**

The aim of this course is to provide students with a knowledge of the administration of the taxation system generic to most jurisdictions. It introduces students to the application of taxation legislation to individuals and companies in a compliant and ethical manner. Students are introduced to the rationale behind – and the functions of – the tax system. The course then considers the separate taxes that an accountant would need to have a detailed knowledge of, such as income tax from self-employment, employment and investments, the corporation tax liability of individual companies

and groups of companies, the national insurance contribution liabilities of both employed and self-employed persons, and the value added tax liability of businesses. Having covered the core areas of the basic taxes, candidates should be able to compute tax liabilities, explain the basis of their calculations, apply tax planning techniques for individuals and companies and identify the compliance issues for each major tax through a variety of business and personal scenarios and situations.

- **Financial management:**
The aim of the course is to develop the knowledge and skills expected of a finance manager, in relation to investment, financing, and dividend policy decisions. The course is designed to equip candidates with the skills that would be expected from a finance manager responsible for the finance function of a business. It prepares candidates for more advanced and specialist study in Advanced Financial Management.

- **Financial reporting:**
The aim of the syllabus is to develop knowledge and skills in understanding and applying IFRS Standards and the theoretical framework in the preparation of financial statements of entities, including groups and how to analyse and interpret those financial statements. The financial reporting syllabus assumes knowledge acquired in Financial Accounting, and develops and applies this further and in greater depth. The syllabus begins with the Conceptual Framework for Financial Reporting with reference to the qualitative characteristics of useful information and the fundamental bases of accounting introduced in the Financial Accounting syllabus within the Knowledge module. It then moves into a detailed examination of the regulatory framework of accounting and how this informs the standard setting process. The main areas of the syllabus cover the reporting of financial information for single companies and for groups in accordance with generally accepted accounting principles and relevant IFRS Standards.

SECTION 4
Course Description

- **Auditing and assurance.**
The Audit and Assurance syllabus is essentially divided into six areas. The syllabus starts with the nature, purpose and scope of assurance engagements, including the statutory audit, its regulatory environment, and introduces governance and professional ethics relating to audit and assurance. It then leads into planning the audit and performing risk assessment. The syllabus then covers a range of areas relating to an audit of financial statements including the scope of internal control and the role and function of internal audit. These include, evaluating internal controls, audit evidence, and a review of the financial statements. In addition to final review procedures, the syllabus concentrates on reporting, including the form and content of the independent auditor's report.

- **Management information systems.**
 In this course students investigate on existing technologies about software and hardware to solve problems and learn to display proficiency in decision making using contemporary Information systems tools. Students will apply the principles of information systems development and learn to

apply the knowledge of information systems for competitive advantage This course aim so allow the student to learn the use of data communication networks, the Internet and e-commerce in optimizing business opportunities.

- **Quantitative analysis:**

The Quantitative Analysis course aims develop an understanding of the mathematical principles and concepts which are useful in problem solving and decision making. The use of statistical methods in decisionmaking and application of statistical and mathematical models for estimation and forecasting are used in the solving and optimization of problems in management.

SECTION 5
Course Description

- **Business Strategy**, **governance and ethics**:

Global Strategy and consolidates and builds on knowledge candidates have gained in the other subjects: In an increasingly complex business environment characterised by change, uncertainty and escalating competition, the disciplines of strategy and leadership have become critical to successful organisational performance. The aim of this subject is to link the knowledge expected of the future finance professional to the concepts of strategy and leadership. The future finance professional is expected to use a range of technical information to make decisions for the future of the business within an ethical framework of operation. This subject demonstrates that accounting information, ethics, strategy and leadership are applicable to finance professionals, in a global context and in diverse organisational settings. The subject materials address the needs of candidates operating in different international markets in varying roles, including content on current and emerging technologies and emerging business models.

- **Advanced Managerial Accounting**:

This course is based on the prior completion of Management Accounting. The objective is to provide students with an appreciation of management accounting and to explore how they have impacted on practice. This course will explain and understand real world management accounting, examine both socio and technical aspects of the discipline together, and consider management accounting and Activity-based costing, Balanced Scorecard, Strategy execution, Costvolume profit analysis and more advanced topics.

- **Advanced financial management:**

The aim of the syllabus is to apply relevant knowledge, skills and exercise professional judgement as expected of a senior financial executive or advisor, in taking or recommending decisions relating to the financial management of an organisation in private and public sectors. This syllabus develops upon the core financial management knowledge and skills covered in the Financial Management syllabus and prepares candidates to advise management and/or clients on complex strategic financial management issues facing an organisation. The syllabus starts by exploring the role and responsibility of a senior executive or advisor in meeting competing needs of stakeholders within the business environment of multinationals. The syllabus then re-examines investment and financing decisions, with the emphasis moving towards the strategic consequences of making such decisions in a domestic, as well as international, context. Candidates are then expected to develop further advisory skills in planning strategic acquisitions and mergers and corporate

re-organisations. The next part of the syllabus re-examines, in the broadest sense, the existence of risks in business and the sophisticated strategies which are employed in order to manage risks. It builds on what candidates would have covered in the Financial Management syllabus.

SECTION 6

Course Description

- **Advanced public finance and taxation:**

The aim of the syllabus is to apply relevant knowledge and skills and exercise professional judgement in providing relevant information and advice to individuals and businesses on the impact of the major taxes on financial decisions and situations. The Advanced Taxation syllabus further develops the key aspects of taxation introduced within the Applied Skills module and extends the candidates' knowledge of the tax system, together with their ability to apply that knowledge to the issues commonly encountered by individuals and businesses, such that successful candidates should have the ability to interpret and analyse the information provided and communicate the outcomes in a manner appropriate to the intended audience. The syllabus builds on the basic knowledge of core taxes from the earlier taxation exam and introduces candidates to stamp taxes. As this is an optional exam, aimed at those requiring/desiring more than basic tax knowledge for their future professional lives, the syllabus also extends the knowledge of income tax, corporation tax, capital gains tax and inheritance tax to encompass further overseas aspects of taxation, the taxation of trusts and additional exemptions and reliefs. Computations will normally only be required in support of explanations or advice and not in isolation.

- **Advanced auditing and assurance:**

The aim of the syllabus is to analyse, evaluate and conclude on the assurance engagement and other audit and assurance issues in the context of best practice and current developments. The Advanced Audit and Assurance syllabus further develops key skills introduced in Audit and Assurance at the Applied Skills level. The syllabus starts with the legal and regulatory environment including money laundering, and professional and ethical considerations, including the Code of Ethics and professional liability. This then leads into procedures in quality management, including quality management relevant at the firm and the engagement level and the acceptance and retention of professional engagements. The syllabus then covers the audit of financial statements, including planning, and evidence gathering. It then covers the completion, evidence evaluation and review and reporting on an audit of historical financial information. The next section moves onto other assignments including prospective financial information, due diligence and forensic audit as well as the reporting of these assignments. The next section covers current issues and developments relating to the provision of audit related and assurance services.

- **Advanced financial reporting:**

As a continuation of Financial Reporting, this course covers the accounting for business combinations, the preparation of consolidated financial statements, and other related topics including, but not limited to: step-bystep acquisition, deconsolidation, segments reporting, and the goodwill impairment test. This course begins with a discussion of the scope and the differences between business combinations and asset acquisitions. The course explores the measurement and recognition principles of the acquisition method to account for business combinations. Then, the course covers the consolidation process. Students will learn how to prepare the consolidated financial statements and make all of the necessary consolidation adjustments.

CODE: CP100 - BUSINESS MANAGEMENT I & II (W/ AI INTEGRATION)

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;
2.   Relate how business institutions operate in our modern-day political, social and economic environment;
3.   Describe various business ownership forms;
4.   Acquire information about starting your own business;
5.   Explain management functions;
6.   Acquire a vocabulary for further study of business subjects;
7.   Describe the importance of marketing activities;
8.   Explain the challenges facing management;
9.   Identify basic long and short-term financial planning techniques;

10.   Describe how organizations protect themselves against potential losses;

11.   Identify and apply business laws as they affect business;

12.   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
L1	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	✓			
L2	Describe various business ownership forms, Acquire information about starting your own business;	YES			✓	
L3	Acquire a vocabulary for further study of business subjects, Identify and apply business laws as they affect business	YES			✓	
L4	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			✓	✓
L5	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

Forum: 5% Mandatory

Midterm Exam: ➢ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● G. Pearson, The Rise and Fall of Management, Gower Publishing, 2009.

● Wren & A.G. Bedeian, The Evolution of Management Thought, 6th Edition, Wiley 2009.

● Atrill, P. & McLaney, E (2015) Accounting & Finance for Non-Specialists. Ninth Edition. Pearson.

● Boakes, K, Reading and Understanding the Financial Times. Second Edition. Prentice Hall, 2010.

● Willman, P. (2014) Understanding Management - The Social Science Foundations. Oxford University Press

CODE: MBA301/CP304 - STRATEGIC MANAGEMENT I & II (W/ AI IMPLEMENTATION)

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 judgement 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 Behaviour, 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

1.	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.
2.	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.
3.	To integrate and synthesize knowledge gained in business core courses into a comprehensive approach to managing a multifunctional business organization.
4.	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 favourably 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

Forum: 5% Mandatory
Midterm Exam: ⮞ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● Dess, G. G., Lumpkin, G. T., Eisner, A. B., McNamara, G. 2013. Strategic Management: Creating Competitive Advantages, 7th Edition, McGraw-Hill International Edition, McGraw-Hill/Irwin.
● Hill, C. W. L. & Jones, G. R. 2008. Strategic Management: An integrated approach, 8th Edition, Houghton Mifflin

CODE: MBA100/CP301 STRATEGIC DIGITAL MARKETING AND MANAGEMENT

COURSE DETAILS

Course level: Graduate
Course category: Core Course
Course credits: 4
Course duration: 13 weeks
Total contact hours: 38 (18hrs Lectures + 20hrs Discussion Forums)
Total exam hours: 4
Total study hours: 76 (40hrs Self-directed +36hrs Research)
Language of instruction: English

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

COURSE OVERVIEW

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

COURSE OBJECTIVES

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

LEARNING CONTENT AND OUTCOMES

Unit I

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

Unit II

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

Unit III

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

Unit IV

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

Unit V

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

Unit VI

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

Unit VII

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

Learning Outcomes: 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
Forum 5% Mandatory
Midterm Exam: ➢ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

●   Marketing Management, second edition by Greg W. Marshall and Mark W. Johnston, ISBN-13: 978-0-07-802886-1, McGraw Hill Education.
●   Kotler, Philip, and Kevin Keller. Marketing Management. 13th ed. Prentice Hall, 2008
●   Best, Roger J. Market-Based Management – Strategies for Growing Customer

Value and Profitability. 5th ed. Prentice Hall, 2009.

CODE: MBA101/CP101 - HUMAN RESOURCE MANAGEMENT
COURSE DETAILS

Course level: Graduate
Course category: Core Course
Course credits: 4
Course duration: 13 weeks
Total contact hours: 38 (18hrs 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 OBJECTIVES AND OUTCOMES

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

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

UNIT II

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

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

UNIT III
Job Analysis – Job Description, Job Specification. The systematic approach to

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

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

UNIT IV

Performance Appraisal: Definition, Purpose of appraisal, Procedures and Techniques including 360-degree Performance Appraisal, Job Evaluation.

UNIT V

Discipline and Grievance Procedures: Definition, Disciplinary Procedure, Grievance Handling Procedure. Industrial Relations: Nature, importance and approaches of Industrial Relations.

Promotion, Transfer and Separation: Promotion – purpose, principles and types; Transfer – reason, principles and types; Separation – lay-off, resignation, dismissal, retrenchment, Voluntary Retirement Scheme.

	Learning Outcomes: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
L1	Demonstrate understanding of: ● Current global trends and issues related to Human Resource Management ● best HR practice in high-performance organizations ● potential changes in HR practices over the coming decade	Yes	✓ ✓ ✓			✓ ✓ ✓
L2	Apply theory, concepts and models to HR practice in the following areas: ● Strategic planning ● Recruitment ● Performance Management ● Employee Engagement and Retention ● Action Research	Yes	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
L3	Analyse, evaluate and provide creative solutions to complex HR problems, including: ● Organizational structure and culture ● Employee / Industrial Relations ● Dealing with inter-personal issues ● Strategic leadership in the field of HR	Yes		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	
	Communicate effectively with peers and line					

	management in terms of:	A	B	C	D
L4	● Communication technologies ● Use of presentation tools and techniques ● Writing of effective HR documents ● Financial analysis of human capital benefits and costs	Yes	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
L5	● Lead and participate in virtual team meetings and assignments ● Develop collective problem-solving skills with colleagues ● Make informed judgements related to professional and ethical HR challenges ● Take responsibility for initiatives and projects			✓ ✓ ✓ ✓	✓ ✓ ✓ ✓

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

Assessments

Forum 5% Mandatory
Midterm Exam: ⚡ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

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

CODE: MSF203/CF203 - ECONOMICS FOR DECISION-MAKING

COURSE DETAILS
Course level: Graduate
Course category: Core Course
Course credits: 4
Course duration: 13 weeks
Total contact hours: 38 (18hrs Lectures + 20hrs Discussion Forums)
Total exam hours: 4
Total study hours: 76 (40hrs Self-directed + 36hrs Research)
Language of instruction: English

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

COURSE OVERVIEW

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

LEARNING OBJECTIVE AND OUTCOME

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

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

1.   Identify the microeconomic foundations of the macroeconomy and
explain how these foundations inform the performance of the macroeconomy.

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

Unit 1: Supply and Demand
-      Scarcity
-      Opportunity cost

Unit 2: Elasticity and its applications
-      Demand and supply measures
-      Cross price elasticity

Unit 3: Supply-demand and government policies
-      Positive and Negative Externalities
-      Carbon Credits and Government intervention

Unit 4: Efficiency of Markets
-      The pricing mechanism
-      Simple linear regression

Unit 5: Theory of the Firm
-      Profit maximization modelling
-      Efficiency measures

Unit 6: Measuring a nation's income
-      GDP, GNP
-      Net and Gross National Income

Unit 7: Unemployment
-      NAIRU
-      Types of unemployment

Unit 8: The Monetary system
-      Quantum Theory of Money
-      Monetary Policy

Unit 9: Aggregate Demand and Aggregate Supply
- Keynesian economics
- Neoclassic theory
- Fiscal vs. Monetary

LEARNING OUTCOMES

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

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

Assessments

Forum 5% Mandatory
Midterm Exam: ⮞ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

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

CODE: CIP/MBA 205 - BUSINESS COMMUNICATION FOR COMPETITIVE ADVANTAGE

COURSE DETAILS

Course Level:Graduate
Course Category: Core Course
Course Credits: 4
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 is designed to provide a comprehensive overview of organizational communications and enable learners to effectively create communications strategies including the construction of messages. The course will focus on developing the skills required to effectively create communications strategies aimed to improve the

management of organizations.

COURSE AND LEARNING OBJECTIVES

1.   Demonstrate critical and innovative thinking.

2.   Display competence in oral, written, and visual communication.

3.   Apply communication theories.

4.   Show an understanding of opportunities in the field of communication.

5.   Use current technology related to the communication field.

6.   Respond effectively to cultural communication differences.

7.   Communicate ethically.

8.   Demonstrate positive group communication exchanges.

The course will have the following outline:

1.   Introduction to Organizational Communication;

2.   Business Communication, Communication in Business;

3.   Decision-making, Motivation, Feedback and Conflict Management;

4.   Strategic Organizational Communication: Case studies;

5.   Internal Communications Campaigns;

6.   Alignment in times of Change and Crisis;

7.   Organizational Communication in the Future

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

			A	B	C	D
L1	Demonstrate critical and innovative thinking.	YES	X	X		
L2	Display competence in oral, written, and visual communication; Apply communication theories.	YES	X	X		X
L3	Show an understanding of opportunities in the field of communication; Use current technology related to the communication field.	NO	X	X	X	X
L4	Respond effectively to cultural communication differences; Communicate ethically.	NO	X	X	X	X
L5	Demonstrate positive group communication exchanges.	YES	X	X	X	X

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

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⮞ 40% (Recommendation 30%)

Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- The Social Styles Handbook: Adapt Your Style to Win Trust (Wilson Learning Library), by Tom Kramlinger

- HBR Guide to Better Business Writing, by Bryan A. Garner

- Crucial Conversations: Tools for Talking When Stakes Are High, by Kerry Patterson & Joseph Grenny

CODE: CPA600 ADVANCED PUBLIC FINANCE AND TAXATION

The aim of the syllabus is to apply relevant knowledge and skills and exercise professional judgement in providing relevant information and advice to individuals and businesses on the impact of the major taxes on financial decisions and situations. The Advanced Taxation syllabus further develops the key aspects of taxation introduced within the Applied Skills module and extends the candidates' knowledge of the tax system, together with their ability to apply that knowledge to the issues commonly encountered by individuals and businesses, such that successful candidates should have the ability to interpret and analyse the information provided and communicate the outcomes in a manner appropriate to the intended audience. The syllabus builds on the basic knowledge of core taxes from the earlier taxation exam and introduces candidates to stamp taxes. As this is an optional exam, aimed at those requiring/desiring more than basic tax knowledge for their future professional lives, the syllabus also extends the knowledge of income tax, corporation tax, capital gains tax and inheritance tax to encompass further overseas aspects of taxation, the taxation of trusts and additional exemptions and reliefs. Computations will normally only be required in support of explanations or advice and not in isolation.

CODE: CIP/MBA202 - MANAGING FINANCIAL RESOURCES AND PERFORMANCE

COURSE DETAILS

Course level: Graduate

Course category: Core 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	MBA 102 Financial Accounting And Reporting
	MBA 104 Statistics And Data Analysis
Co-requisites	N/A
Prohibited Combinations	N/A

COURSE OVERVIEW

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

LEARNING CONTENT AND OUTCOMES:

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

1.   Identify the role and scope of financial and managerial accounting and the use of accounting information in the decision making process of managers.

2.   Define operation and capital budgeting, and explain its role in planning, control and decision making.

3.   Prepare an operating budget, identify its major components, and explain the

interrelationships among its various components.

4.   Explain methods of performance evaluation.

5.   Use appropriate financial information to make operational decisions.

6.   Demonstrate use of accounting data in the areas of product costing, cost behaviour, cost control, and operational and capital budgeting for management decisions.

TOPIC OUTLINE

1.   Introduction to Financial Accounting

2.   Assets and Liabilities

3.   Financial Statement Analysis

4.   Review and Exercises

5.   Midterm Exam

6.   Management Accounting

7.   Cost-Volume-Profit Analysis

8.   Incremental Analysis

9.   Responsibility Accounting and Transfer Pricing

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Identify the role and scope of financial and managerial accounting and the use of accounting information in the decision making process of managers.	NO	x	x		

			A	B	C	D
L2	Define operation and capital budgeting, and explain its role in planning, control and decision making.	NO	x	x		
L3	Prepare an operating budget, identify its major components, and explain the interrelationships among its various components.	YES		x	x	x
L4	Explain methods of performance evaluation.	YES		x	x	x
L5	Use appropriate financial information to make operational decisions.

Demonstrate use of accounting data in the areas of product costing, cost behaviour, cost control, and operational and capital budgeting for management decisions. | YES | | | x | x |

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

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⋟ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● Burns, Quinn, Warren, and Oliveira (2013). Management Accounting, McGraw-Hill.

● Horngren, C., A. Bhimani, S. Datar and G. Foster (2008). Management and Cost Accounting, Prentice-Hall.

● Anthony, Govindarajan, Hartmann, Kraus and Nilsson (2014). Management Control Systems, McGraw-Hill.

● Zimmerman (2013). Accounting for Decision-making and Control, McGraw-Hill.

CODE: CIP 103 - CORPORATE POLICY AND ETHICS

COURSE DETAILS

Course Level: Undergraduate

Course Category: Core Requirement

Course Credits: 4

Course Duration: 10 weeks

Total Contact Hours: 35 (15hrs Lectures + 20hrs Discussion Forum)
Total Exam Hours: 4
Total Study Hours: 76 (40hrs Self-Directed + 36hrs Research)
Language of Instruction: English

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

COURSE OVERVIEW

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

This course also aims to provide students with solid skills to know and deal with the fundamentals of ethics. They are enabled to analyze business, social and environmental issues that are relevant to the development of Corporate Social Responsibility and

sustainable business practices.

The course focuses on the CSR practices of Multinational Corporations (MNCs), the challenges and opportunities of acting responsibly in the arena often called "the global village". It also assesses the role of small and medium-sized enterprises (SMEs) in acting responsibly in a highly competitive environment. It discusses government strategies to attract Foreign Direct Investment (FDI) and the dilemmas these present for responsible business practice and the complex interactions between stakeholders, firms, and government.

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

COURSE OBJECTIVES

When the course is complete students should be able to:

1.   Understand the scope and content of ethical theory (including its limitations) and its relevance for diverse institutional and operational business contexts.
2.   Apply the theoretical precepts of ethical theory in order to evaluate real-life situations, clarify ethical alternatives, articulate associated moral values and explain techniques of moral reasoning.
3.   Appreciate The Significance of corporate governance in shaping the values and practices of an organisation and articulate complex issues in corporate governance under local and global settings.
4.   Assess the content and objectives of corporate social responsibility policies while discussing current ethical questions, economic, social and environmental policy frameworks in which CSR takes place.
5.   Understand Relevance of ethical reasoning to one's own professional career and to be aware of the constraints that organisational life can sometimes place on moral self-determination.
6.   Demonstrateagreater awareness of cross-cultural variations in assessing moral issues through case based discussions with other members of learning groups.
7.   Identify Critical issues of CG and CSR, including corporate ownership structures, transparency, board practices, CSR strategy formulation and implementation, and their impact on different stakeholders.
8.   Know how Integrated Management control issues with corporate governance as a firm-specific objective to achieve superior company performance and greater

accountability.

The course provides a comprehensive introduction to ethical considerations in business. Students are enabled to develop a deeper understanding of how to act responsibly towards all business stakeholders while, at the same time, not neglecting the firm's profitability.

The course will discuss models of how CSR can create a sustainable ROI for companies. Students are encouraged to gain awareness of the interconnectedness of organizations and nations in a globalized world and how their actions as managers will affect different stakeholders, nations and the world as a whole.

Introduction to Business Ethics and Corporate Social Responsibility

- Introduction to Ethics and CSR
- The Pro's and Con's
- Corporate Citizenship
- Social Responsiveness and Performance

Theory of Ethics

- Ethical Egoism and subjectivism
- Cultural Relativism
- Theory and Practice

Environmental Ethics

- Approaches to Environmental Issues
- Opposition To Green Environmentalism
- Sustainable Development
- Roi Sustainable Environmental

Ethical Decision-Making

- The Behavioural Complex Affecting Ethical Decision-Making
- Models of Ethical Decision-Making
- Factors Affecting Ethical Decision-Making

CSR and Ethics In a Global Context

- Global Business Activity and Practice
- Operating In Conflict Zones
- Bottom-of-the Pyramid– Doing Business In Poverty Markets
- Corruption and Its Impact On The National and Global Economy

Governing Organisations

- Defining Corporate governance
- Key Features Of Governance
- National and International Dimensions of Governance
- Shareholding,Ownership and Control
- Employee Representation
- Board of Directors

Auditing and Reporting Social Performance

- Voluntary Initiatives
- Voluntary Codes
- Social Accounting
- Drivers For Social and Environmental Reporting
- Principles of Report Content

Managing Ethics Internally

- Managing Corporate Ethics
- Corporate Values Culture
- Compliance Groups
- Ethical Change Management

Environmental Responsibility

- Framing The Link Between business and The Environment
- Principles: Responsibility and Precaution
- Context:Social, Political, and Legal Aspects
- Solutions To Environmental Problems
- Environmental Measurement and Management

LEARNING OUTCOMES

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

L1	Understand the scope and content of ethical theory (including its limitations)and its relevance for diverse institutional and operational business contexts	Yes	X	X		X
L2	Apply The Theoretical Precepts Of Ethical theory in order to evaluate real-life situations, clarify ethical alternatives, articulate associated moral values and explain techniques of moral reasoning.	Yes	X	X	X	X
L3	Appreciate The significance of corporate Governance In shaping the values and practices of an organisation and articulate complex issues corporate governance under local and global settings.	Yes	X	X	X	X
L4	Assess the content and objectives of corporate social responsibility policies while discussing current ethical questions,economic,social and environmental policy frameworks in which CSR takes place.	Yes	x	x		X
L5	Understandtherelevanceofethical reasoningtoone's own professional career and to be aware of the constraints that organisational life can sometimes place on moral self-determination.	Yes	X	X		X
L6	Demonstrate a greater awareness of cross-cultural variations in assessing moral issues through case-based discussions with other members of learning groups.	Yes	X	X	X	X
L7	Identify critical issues of CG and CSR, including corporate ownership structures, transparency, board practices, CSR strategy formulation and implementation, and their impact on different stakeholders.	Yes	X	X	X	X

L8	Know how To integrate management control issues with corporate governance as a firm-specific objective to achieve superior company performance and greater accountability	Yes	X	X	X	X

A – Knowledge and Understanding   B – Intellectual Skills

C – Practical Skills   D – Transferable Skills

ASSESSMENTS

Forum: 5% Mandatory

Midterm Exam: ⚡ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- Boylan, M.(2000).
- Business Ethics.Pearson.
- Post,J.E., Lawrence, A. T. Weber, J. (2001).
- Business and Society, Corporate Strategy, Public Policy, Ethics, McGraw Hill.
- Recommended Articles are available on Moodle, listed under each session

CODE: CIP/MBA300 PROJECT AND OPERATIONS MANAGEMENT

COURSE DETAILS

Course Level:Certificate

Course Category: Core Requirement

Course Credits: 4

Course Duration: 10 weeks
Total Contact Hours: 35 (13hrs Lectures + 20hrs Discussion Forum)
Total Exam Hours: 4

Total Study Hours: 76 (40hrs Self-Directed + 36hrs Research)
Language of Instruction: English

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

COURSE OVERVIEW

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

COURSE OBJECTIVES

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

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

Unit I

Operations Management: An Overview, Definition of Production and Operations Management, Production Cycle, Classification of Operations, New Product Development, Product Design, Plant Location, Layout Planning

Unit II

Forecasting as a Planning Tool: Forecasting Types and Methods, Exponential Smoothening, Measurement of Errors, Monitoring and Controlling Forecasting Models, Box- Jenkins Method. Productivity and Work Study, Method Study, Work Measurement, 47 Basic Concept & Philosophy of Supply Chain Management; Essential Features, Various Flows (Cash, Value and Information)

Unit III

Recent Issues in SCM: Role of Computer / IT in Supply Chain Management, CRM Vs SCM, Benchmarking Concept, Features and Implementation, Outsourcing-Basic Concept, Value Addition in SCM-Concept of Demand Chain Management. Production Planning Techniques, Routing Decisions, Line of Balance, Scheduling Types & Principles, Master Production Schedule.

Unit IV

Inventory Management: Objectives, Factors, Process, Inventory Control Techniques - ABC, VED, EOQ, SED,FSN Analysis. Basic Concepts Of Quality, Dimensions Of Quality, Juran's Quality Trilogy, Deming's 14 Principles, PDCA Cycle, Quality Circles, Quality Improvement and Cost Reduction- 7QC Tools and 7 New QC Tools, ISO 9000-2000 Clauses, Coverage QS 9000 Clauses, Coverage. Six Sigma, Total Productive Maintenance (TPM)

Unit V

Logistics Management: Logistics as Part Of Scm, Logistics Costs, Different Models, Logistics Sub-System, Inbound and Outbound Logistics, Bullwhip Effect In Logistics, Distribution and Warehousing Management. Purchasing & Vendor Management: Centralized and Decentralized Purchasing, Functions of Purchase Department And Purchase Policies. Use Of Mathematical Models For Vendor Rating / Evaluation, Single Vendor Concept, Management Of Stores, Accounting For Materials.

LEARNING CONTENT AND OUTCOMES

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

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

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

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

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

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	X	X

A – Knowledge and Understanding   B – Intellectual Skills

C – Practical Skills   D – Transferable Skills

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ➢ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

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

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:	Assesse d in this module?	A	B	C	

			A	B	C	D
L1	Apply percent of sales approach to identify external financing needed at a given growth rate, and use formulas and pricing models to measure growth opportunities	YES	X	X	X	
L2	Employ various capital budgeting techniques in decision-making	YES	X	X	X	

			A	B	C	D
L3	Apply option pricing models including real options methods, to evaluate corporate investments	YES	X	X	X	
L4	Utilise leading techniques in the valuation of merger and acquisition strategies	YES	X	X	X	
L5	Analyse corporate investment decisions in the context of corporate diversification and corporate governance	YES	X	X	X	
L6	Identify & apply ethical principles relevant to the finance profession	NO	X	X	X	

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

Assessments

Forum 5% Mandatory
Midterm Exam: ⚡ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

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

CODE: MSF303 - PORTFOLIO MANAGEMENT

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 will focus on the application of financial theory to the issues and problems of investment management. Topics will include portfolio optimization and asset allocation, the basics of bond pricing and debt portfolio management, the theory of asset pricing models and their implications for investment as well as techniques for evaluating investment management performance. The course will build upon the analytical skills developed in prior courses.

COURSE OBJECTIVES

Students will learn to design and implement an investment policy statement for an individual or institutional investor that establishes their financial objectives, risk tolerances, constraints, and investment and monitoring policies. Topics include:
- setting investment objectives and policies

- ethical standards and fiduciary duties

- diversification and asset allocation

- capital markets and market efficiency

- equity portfolio management

- fixed-income portfolio management

- alternative investments portfolio management

- evaluating portfolio performance, and monitoring and rebalancing portfolios

COURSE OUTCOMES

Upon completing this course, students will be able to:
- Construct a policy statement reflecting the objectives and risk tolerances of various types of individual and institutional investors.

- Formulate a personal code of ethics based on industry standards and fiduciary duties.

- Evaluate the effect of risk on investment decisions.

- Justify their view on market efficiency using both theoretical and empirical arguments.

- Analyze the gains from diversification and asset allocation

- Develop an integrated portfolio management plan including equities, fixed income assets and alternative investments reflecting the goals, risk tolerance, and circumstances of individual and institutional investors.

- Appraise portfolio performance using appropriate methodologies.

- Assess various monitoring and rebalancing strategies.

COURSE CONTENT

Unit 1: Securities markets and Investment Vehicles

- Asset classes

- Role of global security exchanges

- Market regulation

- Utility and Risk aversion

Unit 2: Portfolio theory and quantitative tools

- Risk and return features

- Sharpe ratio and portfolio efficiency

- CAPM and Markowitz optimization

Unit 3: Models with Multiple sources of risk

- APT: Theory
- APT: Estimation

Unit 4: Investment Management

- Active vs. passive management
- Liquidity
- International Diversification
- Risk Management
- Ethical considerations

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Construct a policy statement reflecting the objectives and risk tolerances of various types of individual and institutional investors.	YES	X	X	X	X
L2	Formulate a personal code of ethics based on industry standards and fiduciary duties.	YES	X	X	X	X
L3	Evaluate the effect of risk on investment decisions.	YES	X	X	X	X
L4	Justify their view on market efficiency using both theoretical and empirical arguments.	YES	X	X	X	X
L5	Analyze the gains from diversification and asset allocation	YES	X	X	X	X
	Develop an integrated portfolio management plan including equities, fixed income assets and alternative investments reflecting the goals, risk tolerance, and circumstances of	YES	X	X	X	X

	individual and institutional investors.					
	Appraise portfolio performance using appropriate methodologies; Assess various monitoring and rebalancing strategies.	YES	X	X	X	X

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

Assessments

Forum 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

Bibliography: Principles of investment, Bodie, McGraw Hill

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 on 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 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

			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

Forum: 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

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

CODE: CP1/C - CASES IN GENDER EQUALITY

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 Studies 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:

1. Why has gender been a primary organizing principle of society?

2. How do "gendered scripts" for dress, appearance and behaviour emerge among different social groups and in different societies and historical periods?

3. How do we explain the sexual division of labour and the unequal social status of women and girls and those activities and roles deemed "feminine" in society?

4. In what ways does gender intersect with race, ethnicity and sexuality?

5. How do gendered structures of power and authority operate?

6. 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

Forum: 5% Mandatory

Midterm Exam: ⚡ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- Crawford, M. (2018). Transformations- Women, Gender, and Psychology. New York: McGraw-Hill Education.

- Grewa, I., & Kaplan, C. (2006). An Introduction to Women's Studies Gender in a Transnational World. New York: The McGraw-Hill Companies, Inc.

- Lyons, Sofia. "Explaining the Implicit Quota on Women Executives." New York Magazine, May 2015.

- Smedley, Tim. "The Evidence is Growing—There Really is a Business Case for Diversity." Financial Times, May 15, 2014.

- Hunt, Vivian, Dennis Layton, et al. "Why Diversity Matters?" McKinsey & Company, January 2015.

CODE: CP306 APPLIED BLOCKCHAIN TECHNOLOGY & ARTIFICIAL INTELLIGENCE INTEGRATION

COURSE DETAILS

Course Level: Undergraduate
Course Category: Core Requirement
Course Duration: 13 weeks
Total Contact Hours: 44.5Hrs (19.5hrs Lectures + 25hrs Discussion Forum)
Total Exam Hours: 2
Total Study Hours: 230 (117hrs Self-Directed + 9hrs Specific Assignments + 4hrs Research + 100 Preparation)
Language of Instruction: English

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

COURSE OVERVIEW

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

COURSE OBJECTIVES:

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

LEARNING CONTENT AND OUTCOMES

When the course is complete students be able to:

1. Competently engage in digital currency purchases
2. Understand the implications of the blockchain in finance
3. Engage Employers in the beneficial cost efficiencies of the blockchain
4. 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

			A	B	C	D
L1	Competently engage in mock digital currency purchases	YES	x	x	x	x
L2	Understand the implications of the blockchain in finance	NO	x	x	x	x
L3	Engage employers in the beneficial cost efficiencies of the blockchain	NO	x	x	x	x
L4	Adopt the crypto technology to a bespoke corporate requirement	YES	x	x	x	x

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

ASSESSMENTS.

Forum: 5% Mandatory
Midterm Exam: ⋗ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

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

CODE: CP306A INTRODUCTION TO QUANTUM COMPUTING

COURSE DETAILS

Course Level: Undergraduate
Course Category: Core Requirement
Course Duration: 13 weeks
Total Contact Hours: 44.5Hrs (19.5hrs Lectures + 25hrs Discussion Forum)
Total Exam Hours: 2
Total Study Hours: 230 (117hrs Self-Directed + 9hrs Specific Assignments + 4hrs Research + 100 Preparation)
Language of Instruction: English

COURSE OVERVIEW

This course is designed for industry professionals working in science, technology, engineering and adjacent fields such as public policy and finance, who want to further their knowledge of quantum computing and its applications. It's also suitable for those with a general interest in new and emerging technologies.

Quantum computers promise to speedup many important applications, some of which are almost impossible to solve even on the world's most powerful supercomputers in a reasonable amount of time. Today, quantum computers with a few hundred qubits are already available, and qubit counts are expected to cross a few thousands in the coming years. Quantum computing is an interdisciplinary field with topics ranging from applications and algorithms to programming, compilers, systems, architecture, and physical devices.

COURSE OBJECTIVES

Equip students with a basic understanding of quantum computing from a software and systems perspective so that they can deepen an understanding in applications or pursue research in related areas.

LEARNING CONTENT AND OUTCOMES

By the end of this course students will:
- Become familiar with 1-qubit and 2-qubit gate operations.
- Become familiar with the concepts of superposition and entanglement and be able to analyze quantum state transformations.
- Understand quantum algorithms (Deutsch-Jozsa, Bernstein Vazirani, Grover, and Shor) and compare effectiveness versus classical algorithms.
- Understand the problem of noise and analyze the effectiveness of simple error correction codes.

- Become familiar with NISQ model of computation

COURSE CONTENT

1. Basics of Quantum Computing (Superposition, Entanglement) and Fundamental Quantum Algorithms (Bernstein-Vazirani, Grover, etc.)

Welcome to the foundational module of quantum computing! In this section, we'll explore the core principles that differentiate quantum from classical computing — superposition and entanglement. You'll learn how these phenomena empower quantum systems and examine key quantum algorithms like Bernstein-Vazirani and Grover's search, which demonstrate the power and potential of quantum computation.

2. Quantum Hardware Limitations (Noisy Qubit Devices and Imperfect Quantum Operations)

Quantum computers are still in their infancy, and current hardware comes with significant challenges. This module introduces the physical realities of today's quantum machines — from unstable qubits to errors in quantum gates — and explains how these limitations affect the performance and scalability of quantum algorithms.

3. Noisy Intermediate-Scale Quantum (NISQ) Computing

We are currently in the NISQ era — a stage where quantum devices have tens to hundreds of qubits but are still noisy and not error-corrected. In this module, you'll learn what NISQ computing entails, what makes it unique, and how researchers are leveraging its capabilities to demonstrate quantum advantage despite its limitations.

4. Error Mitigation for NISQ Applications

Since NISQ devices cannot yet support full error correction, error mitigation techniques are essential for making quantum computations useful. This module introduces practical strategies for minimizing the impact of noise in quantum circuits, enabling more reliable results without the need for fully fault-tolerant systems.

5. Fault-Tolerant Quantum Computing

Fault tolerance is the ultimate goal in building reliable quantum computers. In this module, you'll explore the theory and architecture of fault-tolerant quantum computing — a future where errors are automatically detected and corrected, allowing for long, complex quantum computations to be run accurately.

6. Quantum Error Correction for FTQCs

Quantum error correction (QEC) is at the heart of fault-tolerant quantum computing. This module dives into how QEC works, why it's necessary, and how it protects quantum information using techniques like the surface code and logical qubits. You'll see how these ideas make long-term quantum computation feasible.

7. Quantum Cloud Services

You no longer need a quantum computer in your lab to explore quantum computing. This module introduces cloud-based platforms like IBM Quantum, Amazon Braket, and others, which provide access to quantum processors and simulators online. You'll learn how to run quantum programs remotely and take advantage of real-world quantum systems from anywhere.

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⚡ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

Mostly recent papers from ISCA, MICRO, HPCA, and ASPLOS will be covered

1) Quantum Computation and Quantum Information by Nielsen and Chuang
2) Quantum Computer Systems Research for Noisy Intermediate-Scale Quantum Computers by Yongshan Ding and Frederic T. Chong
3) Quantum Computing Progress and Prospect, NAE Report Lecture Contents: Will be available on Canvas
4) Quantum Computing: A Gentle Introduction" by Eleanor Rieffel and Wolfgang Polak

CODE: CRO 100 INTRODUCTION TO ROBOTICS

PROGRAM OVERVIEW:

This fully online certificate EQF Level 6 program equips students with a strong theoretical and practical foundation in robotics and autonomous systems. Through simulation-based labs, collaborative projects, and real-world problem-solving, students gain hands-on experience in designing, controlling, and optimizing robotic systems. The two-year curriculum (three terms per year) culminates in a capstone project, where students tackle a complete robotics challenge, integrating perception, control, and decision-making.

Year 1 – Foundational Concepts

Term I: Core Robotics & Control

1. Introduction to Robotics:

Covers robot kinematics, dynamics, sensors, actuators, and control systems. Students explore diverse robotic applications through simulations.

Learning Outcomes:

● Describe robotic subsystems and their functions.

● Apply kinematic and dynamic principles to robot motion.

● Implement basic control strategies in simulation.

● Compare robotic systems across industries.

CODE: CS100: INTRODUCTION TO CYBERSECURITY

COURSE OVERVIEW

This course is the first module in the EBU Cybersecurity Professional Certificate program, designed for both technical and non-technical audiences. The course introduces cybersecurity principles and practices, with a focus on protecting personal data, devices, and systems from current and emerging digital threats. Students will gain practical knowledge on identifying vulnerabilities, recognizing cyber threats, and understanding the

trade-offs between cybersecurity and usability. Additionally, students will explore high- and low-level examples of threats, learn basic techniques of digital defense, and explore real-world scenarios inspired by current events in cybersecurity.

COURSE OBJECTIVES

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

1. Understand what cybersecurity is and its relevance both personally and professionally.

2. Identify the most common types of cyber threats, attacks, and vulnerabilities.

3. Understand and apply cybersecurity practices to protect personal data and privacy.

4. Develop a basic understanding of key cybersecurity concepts, including computer networking, cryptography, and password management.

5. Understand the impact of social networks and social engineering in cybersecurity.

6. Understand the ethical and legal considerations in cybersecurity.

7. Understand the role of digital forensics in investigating cybersecurity incidents.

8. Develop basic skills in ethical hacking techniques and defense strategies.

LEARNING CONTENT AND OUTCOMES

Upon successful completion of this course, students should be able to:

1. Describe the basic components of computer networking.

2. Examine the concept of privacy and its legal protections.

3. Explain key concepts in cryptography and encryption.

4. Perform basic computer forensics tasks.

5. Develop a password management strategy.

6. Describe the social and ethical implications of cybersecurity.

7. Understand the risks and benefits of using social networks.

8. Conduct basic ethical hacking techniques (e.g., password cracking, Wi-Fi cracking).

9. Identify and understand ethical issues related to cybersecurity.

PREREQUISITES

This is an introductory course, and no technical background is required. However, a basic understanding of computing and internet usage is recommended.

COURSE SCHEDULE AND TOPICS

Week	Topic	Key Learning Objectives	Activities & Assignments
1	Introduction to Cybersecurity	What is cybersecurity? The landscape of digital threats, risks, and rewards.	Reading, Discussion: "What is Cybersecurity?"
2	Computer Networking Basics	Understand the basic components of computer networks: LAN, WAN, protocols.	Lab: Building a simple network; Networking Quiz
3	Cryptography and Encryption	Key principles of cryptography, encryption algorithms, symmetric vs. asymmetric encryption.	Reading: Cryptography Primer; Hands-on: Encrypting data
4	Password Management and Authentication	Password policies, password management tools, multi-factor authentication.	Assignment: Develop a personal password management plan

5	Hacking Techniques	Introduction to ethical hacking: password cracking, brute-force, dictionary attacks.	Lab: Crack simple passwords; Ethical Hacking Discussion
6	Wireless Network Security	Threats to wireless networks, securing Wi-Fi networks, encryption protocols (WPA, WPA2).	Lab: Secure your Wi-Fi network; Wireless Security Quiz
7	Social Networks and Cybersecurity	The role of social engineering in cyberattacks; social media privacy.	Case Study: Phishing Attack via Social Networks
8	Privacy and Legal Aspects of Cybersecurity	Overview of digital privacy, legal protections, and regulations (e.g., GDPR).	Reading: Data Privacy Laws; Quiz on Legal Aspects
9	Social Implications of Cybersecurity	Ethical concerns, surveillance, and the social impact of cybersecurity practices.	Group Discussion: "The Ethics of Cybersecurity"
10	Digital Forensics	Introduction to digital forensics, data recovery, and forensic analysis tools.	Lab: Simple Forensics Exercise: Recover deleted files
11	Incident Response and Security Operations	Concepts of incident response, disaster recovery, and business continuity planning.	Case Study: Responding to a cyberattack

12	Review and Ethical Issues in Cybersecurity	Ethical hacking practices, understanding the ethical implications of cybersecurity.	Final Exam Review and Discussion
13	Final Exam and Project Presentations	Final Exam covering all course material. Student project presentations on cybersecurity issues.	Final Exam, Project Presentation

ASSIGNMENTS AND GRADING

● Weekly Quizzes : Short quizzes to test your understanding of key concepts.

● Labs and Hands-On Activities : Practical labs where you apply the techniques learned (e.g., password cracking, network security configuration).

● Discussion Participation : Active participation in class discussions and group projects.

● Final Exam: A comprehensive exam covering all course material.

● Final Group Project: A practical cybersecurity project where students develop a security strategy for a personal or professional scenario.

BIBLIOGRAPHY

Course Materials

● Textbook & online resources: TBA

● Supplementary Readings: Articles, videos, and case studies will be provided throughout the course.

● Software Tools: Wireshark (free Online), VirtualBox (Free: for creating virtual machines), password managers (e.g.,Free online; LastPass), and basic cryptography tools.

Resources and Support

● Cybersecurity Tools: A list of free and open-source tools for cybersecurity will be provided during the course, including Wireshark, Nmap, and John the Ripper.

● Cybersecurity News: Stay updated on recent developments in the field through sources such as:

○ [Krebs on Security](#)

○ [The Hacker News](#)

○ [Cybersecurity & Infrastructure Security Agency (CISA)](#)

CODE: CP307 - MOBILE APPLICATION DEVELOPMENT

COURSE DETAILS

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	Prior programming experience is recommended, e.g. Python, Java, C++ CP108 PLUTUS/HASKELL (recommended)
Co-requisites	N/A
Prohibited Combinations	N/A

COURSE OVERVIEW

This course is concerned with the development of applications on mobile and wireless

computing platforms. Android will be used as a basis for teaching programming techniques and design patterns related to the development of standalone applications and mobile portals to enterprise and commerce systems.

Emphasis is placed on the processes, tools and frameworks required to develop applications for current and emerging mobile computing devices.

Students will work at all stages of the software development life-cycle from inception through to implementation and testing. In doing so, students will be required to consider the impact of user characteristics, device capabilities, networking infrastructure and deployment environment, in order to develop software capable of meeting the requirements of stakeholders.

Upon completion, students should be able to create basic applications for mobile devices.

COURSE OBJECTIVES

1. To facilitate students to understand android SDK

2. To help students to gain a basic understanding of Android application development

3. To inculcate working knowledge of Android Studio development tool

LEARNING CONTENT AND OUTCOMES

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

1. Identify various concepts of mobile programming that make it unique from programming for other platforms,

2. Critique mobile applications on their design pros and cons,

3. Utilize rapid prototyping techniques to design and develop sophisticated mobile interfaces,

4. Program mobile applications for the Android operating system that use basic and advanced phone features, and

5. Deploy applications to the Android marketplace for distribution.

COURSE OUTLINE

1.   Introduction
a.   Introduction to Mobile Computing
b.   Introduction to the Android Development Environment
2.   Factors in Developing Mobile Applications

REV 07/25 PR

a.   Packaging and Deploying

b.   Performance Best Practices

c.   Android Field Service App

13.   Security and Hacking (as time allows)

a.   Active Transactions

b.   More on Security

c.   Hacking Android

14.   Platforms and Additional Issues (as time allows)

a.   Development Process

b.   Architecture, Design, Technology Selection

c.   Mobile App Development Hurdles

d.   Testing

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⚐ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- Lauren Darcey and Shane Conder, "Android Wireless Application Development", Pearson Education, 2nd ed. (2011)
- Reto Meier, "Professional Android 2 Application Development", Wiley India Pvt Ltd 2. Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd 3.
- Android Application Development All in one for Dummies by Barry Burd, Edition: I

CODE: CPA100 FINANCIAL ACCOUNTING

Financial Accounting introduces the candidate to the fundamentals of the regulatory framework relating to accounts preparation and to the qualitative characteristics of useful information. The syllabus then covers drafting financial statements and the principles of accounts preparation. The syllabus then concentrates in depth on recording, processing, and reporting business transactions and events. The syllabus then covers the use of the trial balance and how to identify and correct errors, and then the preparation of financial statements for incorporated and unincorporated entities. The syllabus then moves in two directions, firstly requiring candidates to be able to conduct a basic interpretation of

financial statements; and secondly requiring the preparation of simple consolidated financial statements from the individual financial statements of group incorporated entities.

CODE: CPA101 BUSINESS LAW

Business Law is an introductory course on the different legal features that underlie business transactions. The course aims to provide students with the skills required to have a basic understanding of the various concepts found in Law. Students will begin by looking at the essential elements of the legal system which will lay down the foundations for the subsequent topics of the law of obligations, employment law and the formation and constitution of business organizations. This course, complemented by Corporate Law, will allow the students to have an adequate and sufficient manipulation of legal theories approaching the CPA exam.

CODE: CPA102 CORPORATE LAW

The aim of the syllabus is to develop knowledge and skills in the understanding of the general legal framework, and of specific legal areas relating to business, recognising the need to seek further specialist legal advice where necessary. Corporate Law starts with an introduction to the overall legal system which underpin business transactions generally. The syllabus then covers a range of specific legal areas relating to various aspects of business of most concern to finance professionals. These are the law relating to employment and the law relating to companies. These laws include the formation and constitution of companies, the financing of companies and types of capital, and the day-to-day management, the administration and regulation of companies and legal aspects of insolvency law. The final section links back to all the previous areas. This section deals with corporate fraudulent and criminal behaviour.

CODE: CE201 LEARNING THEORY AND IMPLICATIONS FOR INSTRUCTION

COURSE OVERVIEW

Course Level: Graduate
Course Category: Core Course
Course Credits: 10
Course Duration: 13 weeks

Total Contact Hours: 38 (13hrs Lectures + 25hrs Discussion Forum)
Total Exam Hours: 2
Total Study Hours: 203 (90 hrs Self-Directed + 9hrs Specific Assignments + 4hrs Research + 100 Preparation)
Language of Instruction: English

COURSE DETAILS

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

This course is a study of human learning and cognitive organization and process. The content will provide an overview of the development of learning theory and cognitive models since the beginning of the scientific study of human learning and mental processes. Major theories concerning the learning process and their implications for the instructional process are investigated.

The focus of the course will be the linkage between theory and educational practice. Attention will be given to the cognitive, affective, and sensory/psychomotor domains and implications for learning through different modalities. Contributions of neuroscience to understanding adolescent research are explored, and structural barriers to learning such as stereotype threat are discussed.

Students will gain insights into the interplay of learner characteristics, prior experiences, the medium of instruction, and cultural influences and understand that learning is contextual, with no single theory universally applying to every student in every situation.

LEARNING CONTENT AND OBJECTIVES:

By the end of the course, the candidate will:
- Become conversant with basic assumptions, concepts, and principles of each theory.

- Grasp possible implications of each theory for different instructional settings.

- Compare and contrast a range of theories in a variety of settings and age groups.

- Create, revise, and begin to use your theory of learning.

- Reflect on how learning theories impact every aspect of your life.

- Explain the interactions of students, teachers, and materials in classrooms and the implications of these interactions for classroom environments.

- Describe contemporary learners along a continuum of characteristics, i.e., socio-economic status, ethnicity, gender, ability, among others, and discuss the implications of these characteristics for instruction in the contemporary classroom and in the future.

- Compare and contrast major theoretical positions on learning.

- Recognize and articulate how their philosophies and preferences for learning influence their educational practices.

- Examine motivation and its implications for learning and classroom practices environments.

- Utilize self-assessment for self-improvement and self-enhancement as educational professionals.

COURSE CONTENT

This course will cover the following topics.

UNIT 1: Introduction; Learning and Teaching in the Classroom; Course Overview & Perspectives on Learning, theories of learning and their instructional applications in educational settings.

UNIT 2: Behavioral Analysis; Behaviorism and the Information Processing Model in Classroom Practices; Theoretical Overview, Modeling, Self-Efficacy, & Self-Regulation; Pavlovian Conditioning, Watson, Guthrie, Skinner, Thornkike, and Bandura.

UNIT 3: Cognitive Analysis; Complex Cognitive Processes, Concept Learning & Conceptual Change, viewpoints, and applications regarding the teaching/learning process including Bruner and Ausubel.

UNIT 4: Social Analysis; Observational, Social Learning; Identify humanistic viewpoints and applications regarding the teaching/learning process including Rogers; Recognize the significance of social learning theory and its implication for teaching.

UNIT 5: Constructivist; Piaget's, Bruner's, & Vygotsky's Theory.

UNIT 6: Who's Who in Human Learning.

UNIT 7: The Adolescent Brain and Neuroscience; Identify concepts and procedures that enable students to process and store information.

UNIT 8: Understanding Learner Characteristics; Understand human growth and development issues and concepts for childhood and early adolescence.

UNIT 9: Multiple Approaches to Curriculum Design.

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Become conversant with basic assumptions, concepts, and principles of each theory.	Y			X	x
L2	Grasp possible implications of each theory for different instructional settings	N			X	x
L3	Compare and contrast a range of theories in a variety of settings and age groups.	N	X	X		
L4	Create, revise, and begin to use your theory of learning.	N	X	X		
L5	Reflect on how learning theories impact every aspect of your life.	N	X			
L6	Explain the interactions of students, teachers, and materials in classrooms and the implications of these interactions for classroom environments.	Y		X	X	
L7	Describe contemporary learners along a continuum of characteristics, i.e., socio-economic status, ethnicity, gender, ability, among others, and discuss the implications of these characteristics for instruction in the contemporary classroom and in the future.	Y		X		

L8	Compare and contrast major theoretical positions on learning.	Y	X			
L9	Recognize and articulate how their philosophies and preferences for learning influence their educational practices.	Y	X			X
L10	Examine motivation and its implications for learning and classroom practices environments.	N			X	X
L11	Utilize self-assessment for self-improvement and self- enhancement as educational professionals.	N			X	X

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

ASSESSMENTS

Forum 5% Mandatory
Midterm Exam: ➢ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- TBA

CODE: CE203 SPECIAL EDUCATIONAL NEEDS: INCLUSIVE APPROACHES

COURSE DETAILS

Course Level: Graduate
Course Category: Core Course
Course Credits: 10
Course Duration: 13 weeks
Total Contact Hours: 40 (15hrs Lectures + 25hrs Discussion Forum)
Total Exam Hours: 2
Total Study Hours: 203 (90 hrs Self-Directed + 9hrs Specific Assignments + 4hrs Research + 100 Preparation)
Language of Instruction: English

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

COURSE OVERVIEW

This course presents an overview of current special education issues as they relate to inclusive practices. Candidates will gain an understanding of the challenges faced by exceptional students and analyze the responsibilities of educational professionals in addressing these challenges. The philosophy of inclusion will be emphasized through identifying collaborative strategies, tools and approaches that will assist in making the general education classroom more inclusive for all students. Students will therefore learn how to identify and provide appropriate learning opportunities for children with diverse needs and become sensitive to social, emotional, behavioural, cognitive, and cultural differences; the need to work with families, and the importance of early intervention to prevent or ameliorate disability.

LEARNING CONTENT AND OBJECTIVES:

By the end of the course, the candidate will:

1. Demonstrate an understanding of laws, regulation, and policies that pertain to the development of educational programs for students with special needs, including major categories of disabilities.
2. Discuss the concept of least restrictive alternatives and examine the research and rationale(s) for inclusive education.
3. Demonstrate an understanding of the role and responsibilities of the general educator in the design of Individual Education Programs (IEP), including identification, referral, IEP development, and implementation.

4. Discuss principles of educational assessment for special populations, including testing bias, sensitivity to cultural and language factors, and the importance of adaptations for English Language Learners (ELL).

5. Demonstrate an understanding of the characteristics and effective applications of collaboration, including working with families and paraprofessionals in the design and implementation of assessment and instructional programs for students with disabilities.

6. Analyze classroom and student needs in organizing and planning instruction for special populations, including the design of accommodations and the use of assistive technologies.

7. Demonstrate an understanding of appropriate instructional materials and methods for students with low incidence disabilities and the accommodations that can be made for them in general education classrooms.

8. Demonstrate an understanding of appropriate instructional materials and methods for students with high incidence disabilities and the accommodations that can be made for them in general education classrooms.

9. Describe effective curricular and instructional approaches and accommodations that ensure access to the content areas, including literacy, mathematics, science, and social studies.

10. Demonstrate an understanding of strategies for increasing students' positive behaviours and promoting the social integration of students with special needs in general education classrooms.

COURSE CONTENT

This course will cover the following topics.

UNIT 1: Foundations of Special Education: Inclusion as a philosophy for educating exceptional students in general education settings; Legal & Ethical Premise for teaching all students

UNIT 2: Special Education Referral & Assessment Special education identification process

UNIT 3: Collaboration Models; Creating Collaborative Relationships Comprehensive planning team through effective collaboration and communication strategies

UNIT 4: The Classroom Environment: Strategies for Classroom Organization and Management

UNIT 5: Low Incidence Disabilities Working with advanced students - Learning disabilities - ADHD - emotional & behaviour challenges

UNIT 6: High Incidence Disabilities Autism & ASD Spectrum Disorders, Intellectual Disabilities - FASD/FASE

UNIT 7: Other Students with Special Needs Communication Disorders - Hearing loss - Vision & Blindness - Physical Disabilities

UNIT 8: Instructional Adaptations; Differentiating Instruction Strategies to enhance learning, motivation, and social development

UNIT 9: Evaluating Student Learning Strategies for evaluating student progress in general, modifying the evaluation methods used to assess student progress, developing differentiated assessment practices, and using alternative grading practices.

UNIT 10: Strategies for Independent Living Working with Families of Students with Exceptionalities

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 laws, regulation, and policies that pertain to the development of educational programs for students with special needs, including major categories of disabilities.	N		X		
L2	Discuss the concept of least restrictive alternatives and examine the research and rationale(s) for inclusive education.	N		X		
L3	Demonstrate an understanding of the role and responsibilities of the general educator in the design of Individual Education Programs (IEP), including identification, referral, IEP development, and implementation.	N	X	X		
L4	Discuss principles of educational assessment for special populations, including testing bias, sensitivity to cultural and language factors, and the importance of adaptations for English Language Learners (ELL).	N	X	X		

			A	B	C	D
L5	Demonstrate an understanding of the characteristics and effective applications of collaboration, including working with families and paraprofessionals in the design and implementation of assessment and instructional programs for students with disabilities.	N	X	X		
L4	Analyze classroom and student needs in organizing and planning instruction for special populations, including the design of accommodations and the use of assistive technologies.	Y		X	X	
L5	Demonstrate an understanding of appropriate instructional materials and methods for students with low incidence disabilities and the accommodations that can be made for them in general education classrooms.	Y	X	X	X	
L6	Demonstrate an understanding of appropriate instructional materials and methods for students with high incidence disabilities and the accommodations that can be made for them in general education classrooms.	Y	X	X	X	
L7	Describe effective curricular and instructional approaches and accommodations that ensure access to the content areas, including literacy, mathematics, science, and social studies.	Y		X	X	X
L8	Demonstrate an understanding of strategies for increasing students' positive behaviours and promoting the social integration of students with special needs in general education classrooms.	Y	X	X	X	X

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

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⚐ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- TBA

CODE: CE301 CURRICULUM DESIGN AND INSTRUCTIONAL DECISION MAKING

COURSE DETAILS

Course Level: Graduate
Course Category: Core Course
Course Credits: 10
Course Duration: 13 weeks
Total Contact Hours: 38 (13hrs Lectures + 25hrs Discussion Forum)
Total Exam Hours: 2
Total Study Hours: 203 (90 hrs Self-Directed + 9hrs Specific Assignments + 4hrs Research + 100 Preparation)
Language of Instruction: English

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

COURSE OVERVIEW

In this course, students will learn to develop a curriculum and to evaluate it knowledgeably by engaging in curriculum design. The course will consider current issues in curriculum design and curriculum leadership. The major design frameworks for the development of curricula will be explored, including how decisions should be made about curriculums. Students will conduct mapping, at the primary and secondary levels of education for International school systems.

LEARNING CONTENT AND OBJECTIVES:

By the end of the course, the candidate will:
1. To develop a significant piece of curriculum for one grade and subject.

2. To understand and use curriculum design and evaluation frameworks.

3. To critically examine issues in curriculum development and evaluation, including the roles of various stakeholders in decision-making about curriculum, the pros and cons of a national curriculum, and the characteristics of quality learning experiences.

4. To understand and how to structure curriculum and create learning experiences that are broadly impactful for students.

COURSE CONTENT

This course will cover the following topics:

UNIT 1: What is curriculum: Introductions; Syllabus and course requirements; What is curriculum? Curriculum and the goals of education

UNIT 2: Considering the goals of Primary and Secondary education in the development of curriculum; Graduation goals and learning progressions; Subjects and strands for Primary and Secondary education

UNIT 3: Backward design and the politics of curriculum decision-making; Intro to standards and using standards to develop goals;

UNIT 4: Standards, standardized tests, and curriculum; Identifying priority standards and supporting standards

UNIT 5: Organizing curricula around thinking and conceptual understanding; The thinking curriculum; Using Bloom's Taxonomy to identify levels of thinking skills

UNIT 6: Essential questions and unit themes; standards infrastructure, including anchor standards, priority goals, and supporting standards

UNIT 7: Assessment and acceptable evidence; Determining acceptable evidence of attainment; Summative and formative assessment; Intro to rubrics and scoring guides; Outcome, evidence, criteria, task, rubric, use of results

UNIT 8: Planning learning experiences; the role of experience in education

UNIT 9: Designing experiences for all learners, and planning lessons

UNIT 10: Curriculum Evaluation

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	To develop a significant piece of curriculum for one grade and subject.	Y			X	X
L2	To understand and use curriculum design and evaluation frameworks.	Y	X		X	X

L3	To critically examine issues in curriculum development and evaluation, including the roles of various stakeholders in decision-making about curriculum, the pros and cons of a national curriculum, and the characteristics of quality learning experiences.	N		X		
L4	To understand and how to structure curriculum and create learning experiences that are broadly impactful for students.	Y	X		X	X

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

ASSESSMENTS

Forum 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY
TBA

CODE: CDA100/MSDA100 DATA SCIENCE IN REAL LIFE

COURSE DETAILS

Course Level: Graduate
Course Category: Specialization Course
Course Credits: 4
Course Duration: 13 weeks
Total Contact Hours: 33 (13hrs 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.

COURSE OBJECTIVES:

1. Gain fundamental knowledge of what is Data Science and what do Data Science people do.

2. Learn about Data Science in a business context and what is the future of Data Science.

3. Understand Data Science applications and discover some use cases for Data Science.

COURSE 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?				
L1		Gain fundamental knowledge of what is Data Science and what do Data Science people do	No				
L2		Learn about Data Science in a business context and what is the future of Data Science	YES				
L3		Understand Data Science applications and discover some use cases for Data Science	YES				

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

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⚡ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● TBD

CODE:CDA101/MSDA101 STATISTICS FOR DATA SCIENCE

COURSE DETAILS

Course level: Graduate
Course category: Core Course Course
credits: 4
Course duration: 13 weeks
Total contact hours: 38(18hrs 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

Statistics is the science of assigning a probability to an event based on experiments. It is the application of quantitative principles to the collection, analysis, and presentation of numerical data. Students will learn the fundamentals of Data Science, statistics, and Machine Learning with this course. It will enable students to define statistics and essential terms related to it, explain measures of central tendency and dispersion, and comprehend skewness, correlation, regression, distribution.
Students will be able to make data-driven predictions through statistical inference.

COURSE OBJECTIVES:

1. Understand the fundamentals of statistics

2. Work with different types of data

3. How to plot different types of data

4. Calculate the measures of central tendency, asymmetry, and variability

5. Calculate correlation and covariance

6. Distinguish and work with different types of distribution

7. Estimate confidence intervals

8. Perform hypothesis testing

9. Make data-driven decisions

10. Understand the mechanics of regression analysis

11. Carry out regression analysis

12. Use and understand dummy variables

13. Understand the concepts needed for data science even with Python and R

COURSE CONTENT

- Lesson 1 - Introduction
- Lesson 2 - Sample or Population Data?
- Lesson 3 - The Fundamentals of Descriptive Statistics
- Lesson 4 - Measures of Central Tendency, Asymmetry, and Variability
- Lesson 5 - Practical Example: Descriptive Statistics
- Lesson 6 - Distributions
- Lesson 7 - Estimators and Estimates
- Lesson 8 - Confidence Intervals: Advanced Topics
- Lesson 9 - Practical Example: Inferential Statistics
- Lesson 10 - Hypothesis Testing: Introduction
- Lesson 11 - Hypothesis Testing: Let's Start Testing!
- Lesson 12 - Practical Example: Hypothesis Testing
- Lesson 13 - The Fundamentals of Regression Analysis
- Lesson 14 - Subtleties of Regression Analysis
- Lesson 15 - Assumptions for Linear Regression Analysis
- Lesson 16 - Dealing with Categorical Data
- Lesson 17 - Practical Example: Regression Analysis

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the fundamentals of statistics, work with different types of data and Learn how to plot different types of data	YES	X	X	X	X
L2	Calculate the measures of central tendency, asymmetry, and variability Calculate correlation and covariance Distinguish and work with different types of distribution	YES	X	X	X	X
L3	Estimate confidence intervals Perform hypothesis testing Make data-driven decisions	YES	X	X	X	X
L4	Understand the mechanics of regression analysis and carry out regression analysis	YES	X	X	X	X

L5	Use and understand dummy variables Understand the concepts needed for data science even with Python and R	YES	X	X	X	X

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

Assessments

Forum 5% Mandatory

Midterm Exam: ➢ 40% (Recommendation 30%)

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

Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- TBA

CODE: CP104/MSDA104 INTRODUCTION TO PYTHON WITH AI INTEGRATION

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.

COURSE OBJECTIVES:

1. Write a Python program by implementing concepts of variables, strings, functions, loops, conditions

2. Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes

COURSE CONTENT

1. Lesson 1 - Python Basics

2. Lesson 2 - Python Data Structures

3. 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	x	x
L2	Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes	YES	x	x	x	x

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

ASSESSMENTS

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

BIBLIOGRAPHY

- TBA

CODE: MSDA104 PROGRAMMING FOR ANALYTICS USING 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.

COURSE OBJECTIVES:

1. Write a Python program by implementing concepts of variables, strings, functions, loops, conditions

2. Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes

COURSE CONTENT

1. Lesson 1 - Python Basics

2. Lesson 2 - Python Data Structures

3. 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	x	x
L2	Understand the nuances of lists, sets, dictionaries, conditions and branching, objects and classes	YES	x	x	x	x

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

ASSESSMENTS

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

BIBLIOGRAPHY

- TBA

CODE:CDA102/MSDA102 INTRODUCTION TO ARTIFICIAL INTELLIGENCE

COURSE DETAILS

Course Level: Graduate
Course Category: Specialization Course
Course Credits: 4
Course Duration: 13 weeks
Total Contact Hours: 33 (13hrs 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.

COURSE OBJECTIVES:

1. Meaning, purpose, scope, stages, applications, and effects of Artificial Intelligence

    a. Fundamental concepts of Machine Learning and Deep Learning

2. Difference between supervised, semi-supervised and unsupervised learning

    a. Machine Learning workflow and how to implement the steps effectively

3. The role of performance metrics and how to identify their essential methods

COURSE CONTENT

1. Lesson 1 - Decoding Artificial Intelligence

2. Lesson 2 - Fundamentals of Machine Learning and Deep Learning

3. Lesson 3 - Machine Learning Workflow

4. 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
L1	Meaning, purpose, scope, stages, applications, and effects of Artificial Intelligence	YES	x	x	x	x
L2	Fundamental concepts of Machine Learning and Deep Learning	YES	x	x	x	x
L3	Difference between supervised, semi-supervised and unsupervised learning	YES	x	x	x	x
L4	Machine Learning workflow and how to implement the steps effectively	YES	x	x	x	x
L5	The role of performance metrics and how to identify their essential methods	YES	x	x	x	x

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

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

BIBLIOGRAPHY
TBD

CODE:CDA102F INTRODUCTION À L'INTELLIGENCE ARTIFICIELLE

APERÇU DU COURS

Le cours Introduction à l'intelligence artificielle est conçu pour aider les apprenants à percer les mystères de l'intelligence artificielle et à comprendre ses applications métier.
Il offre un aperçu des concepts et des flux de travail de l'intelligence artificielle, de l'apprentissage automatique, de l'apprentissage profond et des indicateurs de performance.
Les étudiants découvrent la différence entre l'apprentissage supervisé, non supervisé et par renforcement. Ils sont exposés à des cas d'utilisation et découvrent comment les algorithmes de clustering et de classification contribuent à identifier les applications métier de l'intelligence artificielle.

OBJECTIFS DU COURS :

1. Signification, objectif, portée, étapes, applications et effets de l'Intelligence Artificielle

2. Concepts fondamentaux de l'Apprentissage Automatique (Machine Learning) et de l'Apprentissage Profond (Deep Learning)

3. Différence entre apprentissage supervisé, semi-supervisé et non supervisé

4. Flux de travail en Apprentissage Automatique et comment mettre en œuvre efficacement les étapes

5. Rôle des mesures de performance et comment identifier leurs méthodes essentielles

CONTENU DU COURS

- Leçon 1 - Décoder l'Intelligence Artificielle

- Leçon 2 - Fondamentaux de l'Apprentissage Automatique et de l'Apprentissage Profond

- Leçon 3 - Flux de Travail en Apprentissage Automatique

- Leçon 4 - Mesures de Performance

Learning Outcomes: À l'issue du cours, le candidat sera capable de :		Évalué dans ce module ?	A	B	C	D
L1	Signification, objectif, portée, étapes, applications et effets de l'intelligence artificielle	YES	x	x	x	x
L2	Concepts fondamentaux du Machine Learning et du Deep Learning	YES	x	x	x	x
L3	Différence entre l'apprentissage	YES	x	x	x	x

	supervisé, semi-supervisé et non supervisé					
L4	Flux de travail d'apprentissage automatique et comment mettre en œuvre efficacement les étapes	YES	x	x	x	x
L5	Le rôle des indicateurs de performance et comment identifier leurs méthodes essentielles	YES	x	x	x	x

A – Connaissances et Compréhension   B – Compétences Intellectuelles
C – Compétences Pratiques   D – Compétences Transférables

ASSESSMENTS.

Forum: 5% obligatoire
Examen de mi-saison: ⧽ 40% (Recommandation 30%)
Examen final: 30-40%. (Recommandation 40%)
Quiz à choix multiples : 25 % (réglable)

BIBLIOGRAPHY

TBD

CODE: CDA302/MSDA302 - DEEP LEARNING WITH TENSORFLOW

COURSE DETAILS
Course level: Graduate Course category:
Core 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

Deep Learning with Tensorflow will refine the students Machine Learning knowledge and make them an expert in Deep Learning using TensorFlow. Students will master the concepts of Deep Learning and TensorFlow to build artificial neural networks and traverse layers of data abstraction. This course will help students learn to unlock the power of data and in Artificial Intelligence.

LEARNING OBJECTIVES:

- Understand the difference between linear and non-linear regression

- Comprehend Convolutional Neural Networks and their applications

- Gain familiarity on Recurrent Neural Networks (RNN) and Autoencoders

- Learn how to filter with Restricted Boltzmann Machine

CONTENT

- Lesson 1 - Introduction to TensorFlow

- Lesson 2 – Convolutional Neural Networks (CNN)

- Lesson 3 – Recurrent Neural Networks (RNN)

- Lesson 4 - Unsupervised Learning

- Lesson 5 - Autoencoders

			A	B	C	D
L3	Gain familiarity on Recurrent Neural Networks (RNN) and Autoencoders	YES	x	x	x	x
L4	Learn how to filter with Restricted Boltzmann Machine	YES	x	x	x	x

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

ASSESSMENTS

Forum 5% Mandatory

Midterm Exam: ➢ 40% (Recommendation 30%)

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

Quizzes: 25 % (adjustable)

BIBLIOGRAPHY

Bibliography: TBD

CODE: CDA303/MSDA303 - NATURAL LANGUAGE PROCESSING

COURSE DETAILS

Course Level: Graduate
Course Category: Core 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 + 36 hrs Research)

Language of Instruction: English

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

COURSE OVERVIEW

This Natural Language Processing course will give Students a detailed look at the science behind applying Machine Learning algorithms to process large amounts of natural language data.

Students will learn the concepts of Natural Language understanding, Feature Engineering, Natural Language Generation and Speech Recognition techniques.

COURSE OBJECTIVES:

1. Learn how to perform text processing and find a pattern
2. Find the most relevant document by applying TF-IDF
3. Write a script for applying parts-of-speech and extraction on focus words
4. Create your own NLP module
5. Classify the cluster for articles
6. Create a basic speech model
7. Convert speech to text

LEARNING CONTENT AND OUTCOMES

1. Lesson 1 - Introduction to Natural Language Processing
2. Lesson 2 - Feature Engineering on Text Data
   Lesson 3 - Natural Language Understanding Techniques
3. Lesson 4 - Natural Language Generation
4. Lesson 5 - Natural Language Processing Libraries
5. Lesson 6 - Natural Language Processing with Machine Learning and Deep Learning
6. Lesson 7 - Speech Recognition Technique

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Learn how to perform text processing and find a pattern	YES	x	x	x	x
L2	Find the most relevant document by applying TF-IDF	YES	x	x	x	x
L3	Write a script for applying parts-of-speech and extraction on focus words	YES	x	x	x	x
L4	Create your own NLP module	YES	x	x	x	x
L5	Classify the cluster for articles	YES	x	x	x	x
L6	Create a basic speech model	YES	x	x	x	x
L7	Convert speech to text	YES	x	x	x	x

A – Knowledge and Understanding   B – Intellectual Skills

C – Practical Skills   D – Transferable Skills

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes: 25 % (adjustable)

BIBLIOGRAPHY

- TBD

CODE: MSDA201 - ARTIFICIAL INTELLIGENCE AND 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 modelling to develop algorithms and prepare students for their role with advanced Machine Learning knowledge.

COURSE OBJECTIVES:

1.   Master the concepts of supervised and unsupervised learning, recommendation engine, and time series modelling
2.   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
3.   Acquire thorough knowledge of the statistical and heuristic aspects of Machine Learning
4.   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
5.   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

6.   Comprehend the theoretical concepts and how they relate to the practical aspects of Machine Learning

COURSE CONTENT

1.   Lesson 1: Introduction to Artificial Intelligence and Machine Learning
2.   Lesson 2: Data Preprocessing
3.   Lesson 3: Supervised Learning
4.   Lesson 4: Feature Engineering
5.   Lesson 5: Supervised Learning-Classification
6.   Lesson 6: Unsupervised Learning
7.   Lesson 7: Time Series Modelling
8.   Lesson 8: Ensemble Learning
9.   Lesson 9: Recommender Systems
10.   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 modelling	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	YES	x	x	x	x

	include Boosting and Bagging techniques						
L6	Comprehend the theoretical concepts and how they relate to the practical aspects of Machine Learning	YES	x	x	x	x

A – Knowledge and Understanding

B – Intellectual Skills

C – Practical Skills

D – Transferable Skills

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

TBD

CODE: CP300/BBA105 DATA INSIGHTS FOR BUSINESS DECISIONS

COURSE DETAILS

Course Level: Undergraduate
Course Category: Core Requirement
Course Credits: 10
Course Duration: 13 weeks
Total Contact Hours: 44.5 (19.5hrs Lectures + 25hrs Discussion Forum)
Total Exam Hours: 2
Total Study Hours: 230 (117hrs Self-Directed + 9hrs Specific Assignments + 4hrs Research + 100 Preparation)
Language of Instruction: English

Pre-requisites	Year I and Year II courses
Co-requisites	N/A
Prohibited Combinations	N/A

COURSE OVERVIEW

All Business Management students require the ability to deal with quantitative material, including

the collection, collation and analysis of such data. This course introduces students to the quantitative techniques in business mainly centred on statistical aspects.

COURSE OBJECTIVES

This course aims to enhance your ability to analyse financial and economic data and thereby to assist in making business decisions. It is designed for those who have had little or no quantitative training in their 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
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

Forum 5% Mandatory
Midterm Exam: ⋟ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

●   Quantitative Methods For Business / Anderson, David Ray ; Sweeney, Dennis J ; Williams, Thomas Arthur. -- Cincinnati, Ohio: South-Western College Pub.
●   Statistics / Hays, William L. -- Fort Worth: Harcourt Brace College
●   Statistical Thinking (Improving Business Performance) / Roger Hoerl and Donald D. Snee, Duxbury (Thomson Learning)
●   Applied Simulation Modeling / Seils, Ceric and Tadikamalla, Duxbury Applied Series (Thomson Learning)
●   Making Hard Decisions / Robert T. Clemen and Terence Reilly, Duxbury (Thomson Learning).
●   Data Analysis & Decision Making With Microsoft Excel, Al-bright, Winston and Zappe, (Thomson-Duxbury).
●   Haeussler, E.F. Paul, R.S and Wood, R.J. 2018, Introductory Mathematical Analysis for Business, Economics and the Life and Social Sciences 14th ed., Pearson New International edition
●   Swift, L. and Piff, S. 2014 Quantitative Methods for Business, Management and Finance, 4th ed Basingstoke: Palgrave Macmillan

CODE: BBA107 - INNOVATION AND ENTREPRENEURSHIP

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

COURSE OVERVIEW

This course intends to equip the candidate with knowledge, skills and attitudes that will enable him/her to apply entrepreneurship knowledge in business and other environments. This course focuses on understanding basic entrepreneurial concepts, the entrepreneurial mindset, and developing entrepreneurial skills. The course emphasizes the entrepreneurial process and communication and the application of this process to a broad range of business contexts. The course also addresses creativity, securing resources, team building, communication, and leadership.

COURSE OBJECTIVES

1.To provide the students an understanding of the basic concepts of entrepreneurship;

2. To provide the students tools and techniques to generate business ideas and elaborate them for potential implementation;

3. To provide students an understanding of the business communication skills to enable them to apply the skills in the business environment;

COURSE OUTCOMES

A candidate who passes this course should be able to:

• Identify viable business opportunities

• Prepare a business plan

• Demonstrate entrepreneurial orientation skills

• Communicate effectively in a business environment

• Apply entrepreneurial knowledge in response to the emerging business trends.

COURSE CONTENT

TOPIC 1: INTRODUCTION TO ENTREPRENEURSHIP

• Definition of entrepreneurship

• Characteristics of entrepreneurs

• Myths regarding entrepreneurship

• 3 types of start-up firms

TOPIC 2: OPPORTUNITY IDENTIFICATION AND DEVELOPMENT AND FEASIBILITY ANALYSIS

• Difference between opportunities and ideas

• General approaches entrepreneurs use to identify opportunities.

• Techniques entrepreneurs use to generate ideas

• Feasibility analysis and why it's important.

• Product/service feasibility analysis, explain its purpose

• Organization Feasibility Analysis and its purpose

• Financial feasibility analysis and its importance

TOPIC 3: DEVELOPING A BUSINESS MODEL & WRITING A BUSINESS PLAN

• Business models and their importance.

• General types of business models—standard and disruptive business models.

• Components of the Barringer/Ireland Business Model Template that entrepreneurs   can use to develop a business model for their firm

• Purpose of a business plan

• Who reads a business plan and what they're looking for

• Guidelines to follow to write an effective business plan.

• Suggested outline of a business plan.

• How to effectively present a business plan to potential

TOPIC 4: CREATING AND STARTING A NEW VENTURE

• Describe a new-venture team and its primary elements.

• Professional advisers and their role with a new-venture team.

• Consultants and their role in new ventures

TOPIC 5: BUSINESS GROWTH STRATEGIES

- Penetration, market and product development strategy

- Public and private placements

- Joint ventures

- Diversification Loans and equity financing

- Venture capitalists Informal risk capitalists

- Crowd funding and crowding sourcing

TOPIC 6: BUSINESS MODEL/PLAN PRESENTATION

Groups to present the business model/plan prepared to class.

TOPIC 7: PROFESSIONAL COMMUNICATION IN A DIGITAL, SOCIAL AND MOBILE WORLD

- Importance of effective communication

- What it means to communicate as a professional in a business context

- Challenges and opportunities of mobile communication in business

- Guidelines for using communication technology effectively

- Ethics, ethical dilemma and an ethical lapse, and guidelines for making ethical communication choices

TOPIC 8: WRITTEN COMMUNICATION

- Rules of effective writing

- Achieving a conversational and businesslike tone

- Value of careful revision and techniques to improve the readability of messages

- Steps to improve the clarity of written communication

- Most important issues to consider when distributing messages;

TOPIC 9: DIGITAL AND SOCIAL MEDIA

• Digital media formats available for business messages

• Advantages and disadvantages of business messaging systems

• Using social media in business communication

• Business communication applications of social networks

• Organizing and delivering a Presentation

TOPIC 10: REPORTS AND PROPOSALS

• Writing report and proposals

• Options for organizing informational reports, and identify the key parts of a business plan

• Choosing an organizational strategy when writing a proposal

• Adapting to your audience when writing reports and proposals

• Report and Proposal contents

TOPIC 11: COMMUNICATION CHALLENGES IN A DIVERSE, GLOBAL MARKETPLACE

• Opportunities and challenges of intercultural communication

• Importance of recognizing cultural variations

• General guidelines for adapting to any business culture

• Improving intercultural communication skills

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

TBA

AI FOR LEADERS COURSES
CODE: CDA105 AI FOR LEADERS AND MANAGERS IN FINANCE

COURSE OVERVIEW

In the dynamic realm of finance, understanding the applications of artificial intelligence (AI) is paramount for leaders and managers. This course offers a specialized exploration of AI tailored for finance professionals, emphasizing its significance, advantages, risks, impacts on financial models, and opportunities.
Through a blend of lectures, case studies, and interactive sessions, participants will acquire practical insights to effectively utilize AI within financial organizations, enabling them to navigate the evolving landscape of AI in finance.

COURSE OBJECTIVES

1.   Investigate the current landscape of AI technologies and their relevance to financial challenges.
2.   Identify the strategic benefits of implementing AI-driven solutions in the finance sector.
3.   Evaluate potential efficiency gains, cost reductions, and revenue growth opportunities through AI integration.
4.   Analyze successful AI applications in optimizing financial processes and customer interactions.
5.   Assess the ethical, legal, and societal implications of AI deployment in financial contexts.
6.   Anticipate and mitigate risks associated with data privacy, algorithmic biases, and AI-driven decision-making in finance.
7.   Explore how AI disrupts traditional financial models and shapes new market dynamics.
8.   Develop strategies to leverage AI for innovation, competitiveness, and sustainable growth within the finance industry.

LEARNING CONTENT AND OUTCOMES

By the end of the course, participants will be able to:
1. Demonstrate a comprehensive understanding of AI technologies in finance.
2. Develop strategic insights for effectively leveraging AI in financial management.
3. Evaluate the ethical and societal implications of AI deployment in finance.
4. Mitigate risks associated with AI implementation in financial settings.
5. Formulate actionable strategies for AI adoption and transformation in finance.

COURSE CONTENT

Week 1: Introduction to AI in Finance
- Overview of course objectives and structure.
- Importance of AI for finance leaders and managers.
- Examination of current AI technologies and their impact on financial sectors.

Week 2: Strategic Applications of AI in Finance
- Recognizing strategic advantages and opportunities of AI adoption in finance.
- Case studies illustrating successful AI implementations in diverse financial domains.

Week 3: Economic Impact of AI in Finance
- Evaluating efficiency gains, cost reductions, and revenue growth through AI.
- Cost-benefit analysis of AI adoption in financial operations.
- Exploration of economic models and forecasts related to AI-driven financial innovation.

Week 4: AI Applications in Financial Processes
- Analysis of successful AI applications optimizing financial processes.
- Understanding AI-driven automation and its impact on productivity and efficiency.
- Practical exercises on identifying processes for AI integration in finance.

Week 5: AI and Customer Interactions in Finance
- Examination of AI applications enhancing customer experiences and engagement in finance.
- Case studies on AI-driven personalization and recommendation systems in financial services.

Week 6: Ethical and Societal Implications of AI in Finance
- Assessment of ethical, legal, and societal implications of AI deployment in finance.
- Addressing concerns related to data privacy, algorithmic biases, and transparency in financial AI.

Week 7: Mid-Term Exam

Week 8: Risk Management in AI Deployment in Finance
● Anticipating and mitigating risks associated with AI deployment in finance.
● Strategies for managing risks related to data security, compliance, and regulatory issues in financial AI.

Week 9: Disruption and Financial Models
● Understanding how AI disrupts traditional financial models.
● Case studies of industries undergoing transformation due to AI innovations in finance.
● Strategic implications of AI-driven disruption and business model innovation in finance.

Week 10: Leveraging AI for Competitive Advantage in Finance
● Developing strategies to leverage AI for innovation and competitiveness in finance.
● Identifying opportunities for AI integration across different financial sectors.
● Creating a roadmap for AI adoption and implementation in financial organizations.

Week 11: Emerging Trends in AI for Finance
● Identifying emerging trends and opportunities for integrating AI into financial operations.
● Exploring AI applications in marketing, sales, finance, and supply chain management in finance.
● Creating a roadmap for AI-driven financial solutions in organizations.

Week 12: Cultivating an AI-Ready Culture in Finance
● Fostering a culture of innovation and continuous learning to capitalize on AI opportunities in finance.
● Developing leadership strategies for driving AI adoption and transformation in finance.
● Final reflections and action planning for implementing AI strategies in participants' financial organizations.

Week 13: FINAL EXAM

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⋟ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- Artificial Intelligence: Foundations Of Computational Agents, Second Edition, Cambridge University Press 2017, David Poole, Alan Mackworth
- Artificial Intelligence: A Modern Approach by Stuart J. Russell and Peter Norvig

CODE: CDA106 ARTIFICIAL INTELLIGENCE FOR LEADERS AND MANAGERS IN HEALTHCARE

COURSE OVERVIEW

As healthcare organizations navigate the digital transformation, understanding and leveraging artificial intelligence (AI) is crucial for leaders and managers. This course provides a comprehensive overview of AI tailored specifically for healthcare professionals, focusing on its applications, benefits, risks, and impact on the healthcare industry. Through lectures, case studies, and discussions, participants will gain actionable insights to harness the power of AI effectively within their organizations.

By the end of this course, participants will possess the knowledge and strategic insights necessary to implement AI-driven solutions and lead their organizations towards improved patient outcomes, operational efficiency, and sustainable growth in the evolving healthcare landscape.

COURSE OBJECTIVES

The objectives of this course are to enable you:

1.   Explore the current state of AI technologies and their relevance to contemporary healthcare challenges.
2.   Recognize the strategic advantages of adopting AI-driven solutions in various healthcare domains.
3.   Evaluate potential efficiency gains, cost reductions, and revenue growth opportunities through AI implementation in healthcare.
4.   Analyze case studies showcasing successful AI applications in optimizing clinical decision-making, patient engagement, and population health management.
5.   Assess the ethical, legal, and regulatory implications of AI deployment within healthcare organizations.
6.   Anticipate and mitigate potential risks associated with data privacy, algorithmic biases, and AI-driven decision-making in healthcare.
7.   Examine how AI technologies disrupt traditional healthcare models and create new opportunities for innovation.
8.   Develop strategies to leverage AI for improving patient outcomes, operational efficiency, and sustainable growth within your healthcare organization.
9.   Identify emerging trends and opportunities for integrating AI into various facets of healthcare operations, including clinical care, patient engagement, and population health management.
10.   Foster a culture of innovation and continuous learning to capitalize on the transformative potential of AI-driven solutions in healthcare.

LEARNING CONTENT AND OUTCOMES

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

1.   Demonstrate a comprehensive understanding of AI technologies and their applications in healthcare.
2.   Develop strategic insights for leveraging AI to improve patient outcomes and operational efficiency in healthcare organizations.
3.   Evaluate the ethical, legal, and regulatory implications of AI deployment in healthcare.
4.   Mitigate risks associated with AI implementation in healthcare settings.
5.   Develop actionable strategies for AI adoption and transformation in healthcare organizations.

COURSE CONTENT

Week 1: Introduction to AI in Healthcare
●   Overview of the course objectives and structure
●   Understanding the importance of AI for healthcare leaders and managers
●   Exploring the current state of AI technologies and their impact on the healthcare industry

Week 2: Strategic Advantages of AI Adoption in Healthcare
●   Recognizing strategic advantages and opportunities of adopting AI-driven solutions in healthcare
●   Case studies illustrating successful AI implementations in different healthcare domains

Week 3: Economic Impact of AI in Healthcare
●   Evaluating potential efficiency gains, cost reductions, and revenue growth opportunities through AI implementation in healthcare
●   Cost-benefit analysis of AI adoption in healthcare operations
●   Examining economic models and forecasts related to AI-driven innovation in healthcare

Week 4: AI Applications in Clinical Decision-Making
●   Analyzing case studies showcasing successful AI applications in optimizing clinical decision-making
●   Understanding AI-driven clinical decision support systems and their impact on patient outcomes
●   Practical exercises on identifying and prioritizing clinical processes for AI integration

Week 5: AI and Patient Engagement
●   Examining AI applications in enhancing patient engagement and experience

●   Case studies of AI-driven personalized care plans and remote monitoring systems

Week 6: Ethical and Regulatory Implications of AI in Healthcare
●   Assessing the ethical, legal, and regulatory implications of AI deployment in healthcare
●   Addressing concerns related to data privacy, algorithmic biases, and transparency in healthcare AI

Week 7: MID-TERM EXAM

Week 8: Risk Management in AI Deployment in Healthcare
●   Anticipating and mitigating potential risks associated with AI deployment in healthcare
●   Strategies for managing risks related to data security, compliance, and regulatory issues in healthcare

Week 9: Disruption and Innovation in Healthcare Models
●   Understanding how AI technologies disrupt traditional healthcare models
●   Case studies of healthcare organizations undergoing transformation due to AI innovations
●   Strategic implications of AI-driven disruption and innovation in healthcare

Week 10: Leveraging AI for Population Health Management
●   Developing strategies to leverage AI for improving population health outcomes
●   Identifying opportunities for AI integration across different healthcare domains
●   Creating a roadmap for AI adoption and implementation in your healthcare organization

Week 11: Emerging Trends in AI for Healthcare
●   Identifying emerging trends and opportunities for integrating AI into healthcare operations
●   Exploring AI applications in clinical care, patient engagement, and population health management
●   Creating a roadmap for AI-driven healthcare solutions in your organization

Week 12: Cultivating an AI-Ready Culture in Healthcare
●   Fostering a culture of innovation and continuous learning to capitalize on AI opportunities in healthcare
●   Developing leadership strategies for driving AI adoption and transformation in healthcare organizations
●   Final reflections and action planning for implementing AI strategies in participants' healthcare organizations

Week 13: FINAL EXAM

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⮚ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

●   Artificial Intelligence: Foundations Of Computational Agents, Second Edition, Cambridge University Press 2017, David Poole, Alan Mackworth: https://artint.info/2e/html/ArtInt2e.html
●   Artificial Intelligence in Medicine by Casimir A. Kulikowski, Ryszard S. Michalski, Janice G. Carbonell

CODE: CDA205 AI FOR LEADERS AND MANAGERS IN SUSTAINABILITY

COURSE OVERVIEW

In today's era of heightened environmental awareness and the need for sustainable business practices, understanding the role of artificial intelligence (AI) is crucial for leaders and managers in sustainability-focused organizations. This course provides a comprehensive overview of AI tailored specifically for sustainability professionals, focusing on its importance, benefits, risks, impacts on sustainability models, and opportunities. Through a combination of lectures, case studies, and discussions, participants will gain actionable insights to harness the power of AI effectively in driving sustainable innovation and practices within their organizations.
By the end of this course, participants will possess the knowledge and strategic insights necessary to navigate the evolving landscape of AI and lead their organizations towards a more sustainable future.

COURSE OBJECTIVES

The objectives of this course are to enable you:
1.   Explore the current state of AI technologies and their relevance to contemporary sustainability challenges.
2.   Recognize the strategic advantages of adopting AI-driven solutions in sustainability-focused industries.
3.   Evaluate potential efficiency gains, cost reductions, and environmental impact reduction opportunities through AI implementation.
4.   Analyze case studies showcasing successful AI applications in optimizing

sustainable business processes and stakeholder experiences.

5. Assess the ethical, legal, and societal implications of AI deployment within sustainability-focused organizational contexts.

6. Anticipate and mitigate potential risks associated with data privacy, algorithmic biases, and AI-driven decision-making in sustainability.

7. Examine how AI technologies disrupt traditional sustainability models and create new dynamics.

8. Develop strategies to leverage AI for sustainable innovation, competitiveness, and growth within your industry sector.

9. Identify emerging trends and opportunities for integrating AI into various facets of sustainable business operations, including supply chain management, energy optimization, and waste reduction.

10. Foster a culture of innovation and continuous learning to capitalize on the transformative potential of AI-driven sustainable solutions.

LEARNING CONTENT AND OUTCOMES

By the end of the course, participants will be able to:

1. At the completion of the course, participants will be able to:

2. Demonstrate a comprehensive understanding of AI technologies in sustainability.

3. Develop strategic insights for leveraging AI in sustainable business practices.

4. Evaluate the ethical and societal implications of AI deployment in sustainability.

5. Mitigate risks associated with AI implementation in sustainability-focused organizations.

6. Develop actionable strategies for AI adoption and transformation towards sustainability goals.

COURSE CONTENT

Week 1: Introduction to AI in Sustainability
● Overview of the course objectives and structure.
● Understanding the importance of AI for sustainability leaders and managers.
● Exploring the current state of AI technologies and their impact on sustainability-focused industries.Overview of the course objectives and structure.

Week 2: Strategic Advantages of AI Adoption in Sustainability
● Recognizing strategic advantages and opportunities of adopting AI-driven solutions in sustainability.
● Case studies illustrating successful AI implementations in sustainability-focused sectors.

Week 3: Economic and Environmental Impact of AI in Sustainability

- Evaluating potential efficiency gains, cost reductions, and environmental impact reduction opportunities through AI implementation.
- Cost-benefit analysis of AI adoption in sustainable business operations.
- Examining economic models and forecasts related to AI-driven sustainable innovation.

Week 4: AI Applications in Sustainable Business Processes
- Analyzing case studies showcasing successful AI applications in optimizing sustainable business processes.
- Understanding AI-driven automation and its impact on productivity, efficiency, and sustainability.
- Practical exercises on identifying and prioritizing processes for AI integration in sustainability.

Week 5: AI and Stakeholder Experiences in Sustainability
- Examining AI applications in enhancing stakeholder experiences and engagement in sustainability.
- Case studies of AI-driven personalization and recommendation systems for sustainable practices.

Week 6: Ethical and Societal Implications of AI in Sustainability
- Assessing the ethical, legal, and societal implications of AI deployment in sustainability.
- Addressing concerns related to data privacy, algorithmic biases, and transparency in sustainable AI.

Week 7: MID-TERM EXAM

Week 8: Risk Management in AI Deployment for Sustainability
- Anticipating and mitigating potential risks associated with AI deployment in sustainability.
- Strategies for managing risks related to data security, compliance, and regulatory issues in sustainable AI.

Week 9: Disruption and Sustainability Models
- Understanding how AI technologies disrupt traditional sustainability models.
- Case studies of industries undergoing transformation due to AI innovations in sustainability.
- Strategic implications of AI-driven disruption and business model innovation in sustainability.

Week 10: Leveraging AI for Sustainable Competitive Advantage

● Developing strategies to leverage AI for sustainable innovation and competitiveness.
● Identifying opportunities for AI integration across different sustainability-focused industry sectors.
● Creating a roadmap for AI adoption and implementation in sustainability-driven organizations.

Week 11: Emerging Trends in AI for Sustainability
● Identifying emerging trends and opportunities for integrating AI into sustainable business operations.
● Exploring AI applications in supply chain management, energy optimization, and waste reduction.
● Creating a roadmap for AI-driven sustainable solutions in organizations.

Week 12: Cultivating an AI-Ready Culture for Sustainability
● Fostering a culture of innovation and continuous learning to capitalize on AI opportunities in sustainability.
● Developing leadership strategies for driving AI adoption and transformation towards sustainability goals.
● Final reflections and action planning for implementing AI strategies in participants' sustainability-focused organizations.

Week 13: FINAL EXAM

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⋟ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

● Artificial Intelligence: Foundations of Computational Agents, Second Edition by David Poole, Alan Mackworth
● Artificial Intelligence: A Modern Approach by Stuart J. Russell and Peter NorvigG. Pearson, The Rise and Fall of Management, Gower Publishing, 2009.

CODE: CDA306 AI FOR BUSINESS LEADERS AND MANAGERS

COURSE OVERVIEW

In today's rapidly evolving business landscape, understanding the role of Artificial Intelligence (AI) is essential for leaders and managers.

This course provides a comprehensive overview of AI tailored specifically for business professionals, focusing on its importance, benefits, risks, impacts on business models, and opportunities.

Through a combination of lectures, case studies, and discussions, participants will gain actionable insights to harness the power of AI effectively within their organizations.

By the end of this course, participants will possess the knowledge and strategic insights necessary to navigate the evolving landscape of AI and lead their organizations towards an actionable strategy in the evolving digital age.

COURSE OBJECTIVES

The objectives of this course are to enable you:

1.   Explore the current state of AI technologies and their relevance to contemporary business challenges.

2.   Recognize the strategic advantages of adopting AI-driven solutions in various industries.

3.   Evaluate potential efficiency gains, cost reductions, and revenue growth opportunities through AI implementation.

4.   Analyze case studies showcasing successful AI applications in optimizing business processes and customer experiences.

5.   Assess the ethical, legal, and societal implications of AI deployment within organizational contexts.

6.   Anticipate and mitigate potential risks associated with data privacy, algorithmic biases, and AI-driven decision-making.

7.   Examine how AI technologies disrupt traditional business models and create new market dynamics.

8.   Develop strategies to leverage AI for innovation, competitiveness, and sustainable growth within your industry sector.

9.   Identify emerging trends and opportunities for integrating AI into various facets of business operations, including marketing, sales, finance, and supply chain management.

10.   Foster a culture of innovation and continuous learning to capitalize on the transformative potential of AI-driven solutions.

LEARNING CONTENT AND OUTCOMES

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

1. Demonstrate a comprehensive understanding of AI technologies.
2. Develop strategic insights for leveraging AI in business.
3. Evaluate the ethical and societal implications of AI deployment.
4. Mitigate risks associated with AI implementation.
5. Develop actionable strategies for AI adoption and transformation.

COURSE CONTENT

Week 1: Introduction to AI in Business
- Overview of the course objectives and structure
- Understanding the importance of AI for business leaders and managers
- Exploring the current state of AI technologies and their impact on various industries

Week 2: Strategic Advantages of AI Adoption
- Recognizing strategic advantages and opportunities of adopting AI-driven solutions
- Case studies illustrating successful AI implementations in different sectors

Week 3: Economic Impact of AI
- Evaluating potential efficiency gains, cost reductions, and revenue growth opportunities through AI implementation
- Cost-benefit analysis of AI adoption in business operations
- Examining economic models and forecasts related to AI-driven innovation

Week 4: AI Applications in Business Processes
- Analyzing case studies showcasing successful AI applications in optimizing business processes
- Understanding AI-driven automation and its impact on productivity and efficiency
- Practical exercises on identifying and prioritizing processes for AI integration

Week 5: AI and Customer Experiences
- Examining AI applications in enhancing customer experiences and engagement
- Case studies of AI-driven personalization and recommendation systems

Week 6: Ethical and Societal Implications of AI
- Assessing the ethical, legal, and societal implications of AI deployment
- Addressing concerns related to data privacy, algorithmic biases, and transparency

Week 7: MID-TERM EXAM

Week 8: Risk Management in AI Deployment

- Anticipating and mitigating potential risks associated with AI deployment
- Strategies for managing risks related to data security, compliance, and regulatory issues

Week 9: Disruption and Business Models
- Understanding how AI technologies disrupt traditional business models
- Case studies of industries undergoing transformation due to AI innovations
- Strategic implications of AI-driven disruption and business model innovation

Week 10: Leveraging AI for Competitive Advantage
- Developing strategies to leverage AI for innovation and competitiveness
- Identifying opportunities for AI integration across different industry sectors
- Creating a roadmap for AI adoption and implementation in your organization

Week 11: Emerging Trends in AI for Business
- Identifying emerging trends and opportunities for integrating AI into business operations
- Exploring AI applications in marketing, sales, finance, and supply chain management
- Creating a roadmap for AI -driven business solutions in your organization

Week 12: Cultivating an AI-Ready Culture
- Fostering a culture of innovation and continuous learning to capitalize on AI opportunities
- Developing leadership strategies for driving AI adoption and transformation
- Final reflections and action planning for implementing AI strategies in participants' organizations

Week 13: FINAL EXAM

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⯈ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

- Artificial Intelligence: Foundations Of Computational Agents, Second Edition, Cambridge University Press 2017, David Poole, Alan Mackworth: https://artint.info/2e/html/ArtInt2e.html

- Artificial Intelligence: A Modern Approach by Stuart J. Russell and Peter Norvig

CODE: CPF102 INTELLIGENCE ARTICIFIELLE POUR LE DIRIGEANT ET LES GESTIONNAIRES D'ENTERPRISES

APERÇU DU COURS

Dans le paysage commercial actuel en évolution rapide, comprendre le rôle de l'intelligence artificielle (IA) est essentiel pour les dirigeants et les managers.
Ce cours fournit un aperçu complet de l'IA spécialement conçu pour les professionnels, en se concentrant sur son importance, ses avantages, ses risques, ses impacts sur les modèles commerciaux et ses opportunités. Grâce à une combinaison de conférences, d'études de cas et de discussions, les participants obtiendront des informations concrètes pour exploiter efficacement la puissance de l'IA au sein de leurs organisations.
À la fin de ce cours, les participants posséderont les connaissances et les idées stratégiques nécessaires pour naviguer dans le paysage changeant de l'IA et diriger leur organisation vers une stratégie exploitable à l'ère numérique en évolution.

OBJECTIFS DU COURS

Les objectifs de ce cours sont de vous permettre :
1.   Explorez l'état actuel des technologies d'IA et leur pertinence par rapport aux défis commerciaux contemporains.
2.   Reconnaître les avantages stratégiques de l'adoption de solutions basées sur l'IA dans divers secteurs.
3.   Évaluez les gains d'efficacité potentiels, les réductions de coûts et les opportunités de croissance des revenus grâce à la mise en œuvre de l'IA.
4.   Analysez des études de cas présentant des applications d'IA réussies dans l'optimisation des processus métier et des expériences client.
5.   Évaluez les implications éthiques, juridiques et sociétales du déploiement de l'IA dans des contextes organisationnels.
6.   Anticipez et atténuez les risques potentiels associés à la confidentialité des données, aux biais algorithmiques et à la prise de décision basée sur l'IA.
7.   Examinez comment les technologies d'IA perturbent les modèles commerciaux traditionnels et créent une nouvelle dynamique de marché.
8.   Développez des stratégies pour tirer parti de l'IA pour l'innovation, la compétitivité et la croissance durable au sein de votre secteur industriel.
9.   Identifiez les tendances et opportunités émergentes pour intégrer l'IA dans diverses facettes des opérations commerciales, notamment le marketing, les ventes, la finance et la gestion de la chaîne d'approvisionnement.
10.   Favoriser une culture d'innovation et d'apprentissage continu pour capitaliser sur le potentiel de transformation des solutions basées sur l'IA.

CONTENU ET RÉSULTATS D'APPRENTISSAGE

A l'issue du cours, l'étudiant sera capable de :

1.   Démontrer une compréhension globale des technologies d'IA.
2.   Développer des informations stratégiques pour tirer parti de l'IA en entreprise.
3.   Évaluer les implications éthiques et sociétales du déploiement de l'IA.
4.   Atténuez les risques associés à la mise en œuvre de l'IA.
5.   Développer des stratégies concrètes pour l'adoption et la transformation de l'IA.

LE CONTENU DES COURS

Semaine 1 : Introduction à l'IA en entreprise
●   Aperçu des objectifs et de la structure du cours
●   Comprendre l'importance de l'IA pour les chefs d'entreprise et les managers
●   Explorer l'état actuel des technologies d'IA et leur impact sur diverses industries

Semaine 2 : Avantages stratégiques de l'adoption de l'IA
●   Reconnaître les avantages stratégiques et les opportunités liés à l'adoption de solutions basées sur l'IA
●   Études de cas illustrant des mises en œuvre réussies de l'IA dans différents secteurs

Semaine 3 : Impact économique de l'IA
●   Évaluer les gains d'efficacité potentiels, les réductions de coûts et les opportunités de croissance des revenus grâce à la mise en œuvre de l'IA
●   Analyse coûts-avantages de l'adoption de l'IA dans les opérations commerciales
●   Examiner les modèles économiques et les prévisions liés à l'innovation basée sur l'IA

Semaine 4 : Applications de l'IA dans les processus métier
●   Analyser des études de cas présentant des applications d'IA réussies dans l'optimisation des processus métier
●   Comprendre l'automatisation basée sur l'IA et son impact sur la productivité et l'efficacité
●   Exercices pratiques sur l'identification et la priorisation des processus d'intégration de l'IA

Semaine 5 : IA et expériences client
●   Examiner les applications d'IA pour améliorer l'expérience et l'engagement des clients
●   Études de cas de systèmes de personnalisation et de recommandation basés sur l'IA

Semaine 6 : Implications éthiques et sociétales de l'IA
- Évaluation des implications éthiques, juridiques et sociétales du déploiement de l'IA
- Répondre aux préoccupations liées à la confidentialité des données, aux biais algorithmiques et à la transparence

Semaine 7 : EXAMEN DE MI-SESSION

Semaine 8 : Gestion des risques dans le déploiement de l'IA
- Anticiper et atténuer les risques potentiels associés au déploiement de l'IA
- Stratégies de gestion des risques liés à la sécurité des données, à la conformité et aux problèmes réglementaires

Semaine 9 : Perturbations et modèles économiques
- Comprendre comment les technologies d'IA bouleversent les modèles économiques traditionnels
- Études de cas d'industries en transformation grâce aux innovations en matière d'IA
- Implications stratégiques de la disruption induite par l'IA et de l'innovation des modèles économiques

Semaine 10 : Tirer parti de l'IA pour un avantage concurrentiel
- Développer des stratégies pour tirer parti de l'IA au service de l'innovation et de la compétitivité
- Identifier les opportunités d'intégration de l'IA dans différents secteurs industriels
- Créer une feuille de route pour l'adoption et la mise en œuvre de l'IA dans votre organisation

Semaine 11 : Tendances émergentes en matière d'IA pour les entreprises
- Identifier les tendances et opportunités émergentes pour intégrer l'IA dans les opérations commerciales
- Explorer les applications de l'IA dans le marketing, les ventes, la finance et la gestion de la chaîne d'approvisionnement
- Créer une feuille de route pour les solutions commerciales basées sur l'IA dans votre organisation

Semaine 12 : Cultiver une culture prête pour l'IA
- Favoriser une culture d'innovation et d'apprentissage continu pour capitaliser sur les opportunités de l'IA
- Développer des stratégies de leadership pour favoriser l'adoption et la transformation de l'IA
- Réflexions finales et plan d'action pour la mise en œuvre de stratégies d'IA dans les organisations des participants

Semaine 13 : EXAMEN FINAL

Évaluations

Forum: 5% obligatoire
Examen de mi-saison: ⚡ 40% (Recommandation 30%)
Examen final: 30-40%. (Recommandation 40%)
Quiz à choix multiples : 25 % (réglable)

BIBLIOGRAPHIE

● Intelligence artificielle : fondements des agents informatiques, deuxième édition, Cambridge University Press 2017, David Poole, Alan Mackworth :
https://artint.info/2e/html/ArtInt2e.html
● Intelligence artificielle : une approche moderne par Stuart J. Russell et Peter Norvig

CODE: GWTL100 - BUSINESS NEGOTIATIONS

Course level: Undergraduate
Course category: Core requirement
Course duration: 13 weeks
Total contact hours: 44.5(19.5hrs Lectures + 25hrs Discussion Forum)
Total exam hours: 2
Total study hours: 230 (117hrs self-directed + 9hrs Specific assignments + 4hrs Research + 100 Preparation)
Language of instruction: English

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

COURSE OVERVIEW

Negotiation is a critical skill in both personal and professional contexts, and this course will provide learners with the tools and techniques to negotiate effectively and achieve favorable outcomes.

Covered topics are fundamentals of negotiations, understanding different negotiation styles, developing effective communication skills, managing emotions during negotiations, building relationships, and creating win-win solutions.

COURSE OBJECTIVES

This course is designed to equip students with skills and strategies needed to excel in various negotiation scenarios.

LEARNING CONTENT AND OUTCOMES

After successful completion of this course, students will be able to:

1. Understand the fundamentals of negotiation, including key concepts and principles.

2. Understand the main approaches in the negotiation.

3. Understand how to prepare for negotiations.

4. Understand how to undertake commercial negotiations and apply negotiation strategies such as bargaining tactics, dealing with difficult negotiators and creating win-win scenarios.

5. Understand the legal issues that relate to the formation of contracts and recognize the use of legal terms that should regulate commercial agreements.

6. Understand negotiations ethics, including dealing with conflict and maintaining professionalism

Learning Outcomes: On successful completion of the course the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	Understand the **fundamentals of negotiation**, including key concepts and principles			X	X		
L2	Understand the **main approaches** in the negotiation and apply **negotiation strategies**			X	X	X	
L3	Understand how to **prepare** for negotiations			X			
L4	Understand the **legal issues, recognize and explain the legal terms** that should regulate			X			X

	commercial agreements					
L5	Understand **negotiations ethics**, including dealing with conflict and maintaining professionalism			X		X

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

Assessments

Forum: 5% Mandatory
Midterm Exam: ➢ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY
TBA

CODE: GWTL101 - AGILE SOFTWARE METHODOLOGIES

Course level: Undergraduate
Course category: Specialization
Course duration: 11 weeks
Total contact hours: 20 (20hrs Lectures)
Total exam hours: 3
Total study hours: 80 (39hrs self-directed + 25hrs Specific assignments + 16hrs Research)
Language of instruction: English

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

COURSE OVERVIEW

In university few of us are thought about what successful product development is. This course will teach you about the process that a development team adopts in order to transform code into a successful product ready to be customer delivered.

COURSE OBJECTIVES

This course is designed to enable students to acquire the necessary skills and strategies to create software in an agile manner using development principles, practices, methodologies and help them become proficient in delivering high-quality software. Also, the ability to work collaboratively in cross- functional teams, understand the roles and responsibilities of each team member, together with effectively communicate project progress.

LEARNING CONTENT AND OUTCOMES

After successful completion of this course, students will be able to:

1. Understand the fundamentals of software development processes.

2. Have knowledge about the most used development frameworks and methodologies.

3. Understand modeling languages – UML

4. Understand how modern software testing is performed and principles behind it.

5. Understand Agile methodology, how Agility is implemented and what are the values, principles and mindset behind it.

6. Understand what Scrum framework is, what are the roles, responsibilities, values, artifacts and basic terminology.

7. Understand what the events in Scrum are and how software estimations are done.

8. Understand how visibility and transparency is assured in Scrum, using Inspection and adaptation. Learn about key performance indicators (KPI), objectives key results (OKR) and about tools that can boost productivity.

9. Understand what a product is and how product vision is born.

10. AI, how to integrate AI in your workflow. The good, the bad and the ugly of ChatGPT.

11. Understand how most common agile development practices work and in what context they are applied. What scaled agile frameworks are and have a taste of another commonly used framework – kanban.

Learning Outcomes: On successful completion of the course the candidate will be able to:	Assessed in this module?	A	B	C	D
L1	Understand the fundamentals of software development processes.	YES	X	X		
L2	Have knowledge about the most used development frameworks and methodologies.	YES	X	X	X	
L3	Understand modeling languages – UML	YES	X	X	X	X
L4	Understand how modern software testing is performed and principles behind it.	YES	X	X	X	X
L5	Understand Agile methodology, how SCRUM framework is implemented and how to work inside a development team.	NO	X	X		X
L6	Understand what Scrum framework is, what are the roles, responsibilities, values, artifacts and basic terminology.	YES	X	X	X	X
L7	Understand what the events in Scrum are and how software estimations are done.	YES	X	X	X	X
L8	Understand how visibility and transparency is assured in Scrum, using Inspection and adaptation. Learn about key performance indicators (KPI), objectives key results (OKR) and about tools that can boost productivity.	YES	X	X	X	X
L9	Understand what a product is and how product vision is born.	YES	X	X	X	X
L10	AI, how to integrate AI in your workflow. The good, the bad and the ugly of ChatGPT.	NO	X	X		X

| L11 | Understand how most common agile development practices work and in what context they are applied. What scaled agile frameworks are and have a taste of another commonly used framework – kanban. | NO | X | X | X | |

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

Assessments

Forum: 5% Mandatory
Midterm Exam: ⚐ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY
TBA

COMPLIANCE COURSES

CODE: COM101 - AML/KYC/COMPLIANCE- PRACTICAL FRAMEWORK

COURSE DETAILS

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

This course is designed to provide participants with a comprehensive understanding of anti-money laundering (AML), know-your-customer (KYC), and compliance frameworks in a practical context.

The course will equip participants with the knowledge and tools necessary to establish and implement effective AML/KYC and compliance frameworks in their organizations. Participants will learn about the global regulatory landscape and the key concepts and principles underlying AML/KYC and compliance frameworks. They will gain an understanding of the risk-based approach to AML/KYC and compliance, including identifying and assessing risks and developing policies, procedures, and controls to mitigate those risks.

Throughout the course, participants will be engaged in practical exercises and case studies to apply their knowledge and reinforce their understanding of the concepts and principles covered.
By the end of the course, participants will be able to confidently implement and manage AML/KYC and compliance frameworks in their organizations, in compliance with global regulations and best practices.
The course is divided into 10 modules, each focusing on a specific area of AML/KYC/Compliance.

COURSE OBJECTIVES

1.   Identify the key concepts, terminologies, and principles of Anti-Money Laundering (AML), Know Your Customer (KYC), and Compliance frameworks.
2.   Explain the risks associated with money laundering, terrorist financing, proliferation financing, and tax crimes, and how to detect and prevent them.
3.   Describe the responsibilities and roles of various stakeholders in AML/KYC/Compliance, such as financial institutions, regulators, law enforcement, and the private sector.
4.   Apply the risk-based approach to AML/KYC/Compliance, and develop effective policies, procedures, and controls to mitigate the risks of money laundering and other financial crimes.
5.   Analyze the consequences of non-compliance with AML/KYC/Compliance regulations, including penalties, reputational damage, and legal liability, and learn how to avoid and address them.

LEARNING OUTCOMES

After taking the course of AML/KYC/Compliance students should be able to:

1.   After completing the course, learners will be able to identify and explain the different forms of financial crimes, such as money laundering, terrorist financing, proliferation financing, and tax crimes.
2.   Upon completion of the course, learners will be able to describe the roles and responsibilities of various stakeholders in the AML/KYC/Compliance framework, such as financial institutions, regulators, law enforcement, and the private sector.
3.   After completing the course, learners will be able to apply the risk-based approach to AML/KYC/Compliance, and develop effective policies, procedures, and controls to mitigate the risks of financial crimes.
4.   Upon completion of the course, learners will be able to recognize and analyze red flags and other indicators of suspicious activities and take appropriate actions to report them to the relevant authorities.
5.   After completing the course, learners will be able to understand the consequences of non compliance with AML/KYC/Compliance regulations and learn how to avoid and address them through effective compliance and risk management measures.

Learning Outcomes: On successful completion of the course, the candidate will be able to:		Assessed in this module?	A	B	C	D
L1	After completing the course, learners will be able to identify and explain the different forms of financial crimes, such as money laundering, terrorist financing, proliferation financing, and tax crimes.	YES	X	X	X	

			A	B	C	D
L2	Upon completion of the course, learners will be able to describe the roles and responsibilities of various stakeholders in the AML/KYC/Compliance framework, such as financial institutions, regulators, law enforcement, and the private sector.	YES	X	X		
L3	After completing the course, learners will be able to apply the risk-based approach to AML/KYC/Compliance and develop effective policies, procedures, and controls to mitigate the risks of financial crimes.	YES	X		X	
L4	Upon completion of the course, learners will be able to recognize and analyze red flags and other indicators of suspicious activities and take appropriate actions to report them to the relevant authorities.	YES	X		X	x
L5	After completing the course, learners will be able to understand the consequences of non-compliance with AML/KYC/Compliance regulations and learn how to avoid and address them through effective compliance and risk management measures.	YES		X	X	x
L6	Analyze and evaluate how different corporate sustainability initiatives are implemented by companies to become more sustainable	YES	X	X	X	

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

ASSESSMENTS

Forum: 5% Mandatory
Midterm Exam: ⚡ 30% (Recommendation 30%)
Final Exam: 30%. (Recommendation 40%)
Quizzes Multiple Choice: 35 % (adjustable)

BIBLIOGRAPHY

Suggested readings: Books and Journals

● "Anti-Money Laundering: A Guide for the Non-Executive Director" by Mark Pieth – Palgrave Macmillan

● "The Anti-Money Laundering Toolkit: Practical Guidance for Regulated Financial Services Firms" by Mark G. Alexandridis and Robin L. Jarvis - John Wiley & Sons

● "Anti-Money Laundering and Financial Crime: An End-to-End Guide" by Matthew Farrugia and Richard Keshen - Routledge

● "Anti-Money Laundering Compliance Handbook: A Practical Hands-On Guide for Compliance Professionals" by Kevin Sullivan - John Wiley & Sons

● "Anti-Money Laundering in a Nutshell: Awareness and Compliance for Financial Personnel and Business Managers" by Kevin Sullivan - Apress

● "KYC and AML Compliance: A Practical Guide for Financial Institutions" by Tom Obermaier - John Wiley & Sons

● "Compliance Management for Financial Institutions: A Risk-Based Approach to KYC and AML" by Alistair Milne and John D. Wood - John Wiley & Sons

● "Anti-Money Laundering and Counter-Terrorist Financing" by Wouter H. Muller, Gerrit-Jan Zwenne, and Robby Houben - Oxford University Press

● "EU Anti-Money Laundering Directive: A Comprehensive Guide" by Martin J. Quirke - Kluwer Law International

● "Anti-Money Laundering in Europe: Evolution, Challenges, and Opportunities" by Roberto Saviano and Michele Ballarin - Palgrave Macmillan

● "Anti-Money Laundering in Europe: The Fourth Directive on Money Laundering" by Juliette Levy and Charles Duchaine - Edward Elgar Publishing

● "Handbook of Anti-Money Laundering" by Dennis Cox - John Wiley & Sons

● "Anti-Money Laundering Compliance for Law Firms" by Matthew Moore - Bloomsbury Professional

● "Combating Financial Crime: A Practical Guide to AML/CTF Compliance" by Nigel Morris-Cotterill

● "Money Laundering: A Concise Guide for All Business" by Doug Hopton

● "Risk Management for Anti-Money Laundering and Counter-Terrorism Financing" by John Fay

CODE: COM 102 COMPLIANCE - MARKET INTEGRITY AND PREVENTION OF MARKET ABUSE

COURSE OVERVIEW

This course is designed to provide participants with a comprehensive understanding of market integrity principles and the prevention of market abuse.
It covers essential topics related to maintaining fairness, transparency, and ethical conduct in financial markets, with a focus on regulatory requirements, internal controls, and best practices for listed companies and financial institutions.

COURSE OBJECTIVES

1.   Understand the concept of market integrity and its significance in financial markets.
2.   Identify various forms of market abuse and their implications for stakeholders.
3.   Recognize regulatory frameworks and obligations related to market integrity and prevention of market abuse.
4.   Implement effective internal controls and compliance measures to mitigate the risk of market abuse.
5.   Develop strategies for promoting ethical conduct and maintaining trust in financial markets.

COURSE CONTENT

Module 1: Introduction to Market Integrity
●   Definition and importance of market integrity
●   Key principles of market integrity
●   Role of market integrity in maintaining investor confidence

Module 2: Market Abuse: Types and Impact
●   Overview of market abuse offenses (e.g., insider trading, market manipulation)
●   Impact of market abuse on stakeholders and financial markets
●   Case studies and examples of market abuse incidents

Module 3: Regulatory Frameworks and Obligations
●   Overview of relevant regulations (e.g., SEC regulations, EU Market Abuse Regulation)
●   Compliance requirements for listed companies and financial institutions
●   Regulatory enforcement and penalties for market abuse violations

Module 4: Internal Controls for Market Integrity
●   Designing and implementing internal controls to prevent market abuse
●   Role of compliance functions and risk management in ensuring market integrity
●   Monitoring, surveillance, and reporting mechanisms

Module 5: Best Practices for Listed Companies

- Responsibilities of listed companies in promoting market integrity
- Corporate governance practices for preventing market abuse
- Disclosure requirements and transparency initiatives

Module 6: Promoting Ethical Conduct
- Importance of ethical culture in preventing market abuse
- Training and awareness programs for employees and stakeholders
- Whistleblower policies and mechanisms for reporting suspicious activities

Module 7: Case Studies and Practical Applications
- Analysis of real-world cases of market abuse and enforcement actions
- Group discussions and exercises on identifying potential market abuse scenarios
- Developing action plans for enhancing market integrity within organizations

Module 8: Compliance Assessment and Continuous Improvement
- Conducting compliance assessments and audits
- Evaluating the effectiveness of internal controls and compliance programs
- Strategies for continuous improvement and adaptation to regulatory changes

Delivery Format:
- Instructor-led sessions
- Interactive discussions and case studies
- Group activities and exercises
- Assessment quizzes or exams
- Course materials (handouts, presentations, reference materials)

Duration:
The course is typically delivered over a period of 13 weeks, with each module comprising approximately 60-90 minutes of instruction.

Target Audience:
- Compliance officers
- Risk managers
- Legal professionals
- Internal auditors
- Financial analysts
- Executives and directors of listed companies
- Anyone involved in regulatory compliance and market surveillance roles within financial institutions

ASSESSMENTS

Forum 5% Mandatory
Midterm Exam: ➢ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)

BIBLIOGRAPHY

TBA

CODE: COM104 COMPLIANCE- CUSTOMER/INVESTOR PROTECTION

COURSE OVERVIEW

This course offers a comprehensive overview of the Markets in Financial Instruments Directive (MiFID) and the Markets in Financial Instruments Regulation (MiFIR) with a focus on customer and investor protection.
Participants will gain a deep understanding of the regulatory framework, obligations, and best practices for ensuring the protection of clients and stakeholders with investment interests under MiFID II and MiFIR.

COURSE OBJECTIVES

1.   Understand the key principles and objectives of MiFID II and MiFIR.
2.   Identify the regulatory requirements and obligations related to customer and investor protection.
3.   Recognize the impact of MiFID II and MiFIR on market participants and investment services.
4.   Implement effective compliance measures and internal controls to ensure adherence to MiFID II and MiFIR requirements.
5.   Develop strategies for enhancing customer and investor protection within financial institutions.

COURSE CONTENT

Module 1: Introduction to MiFID II and MiFIR
●   Overview of MiFID II and MiFIR directives
●   Objectives and scope of the regulations
●   Evolution from MiFID I to MiFID II and key changes

Module 2: Client Classification and Suitability
●   Requirements for client categorization under MiFID II
●   Obligations related to client suitability and appropriateness assessments
●   Client disclosure requirements and transparency obligations

Module 3: Best Execution and Order Handling
●   Best execution principles and obligations for investment firms
●   Requirements for order handling and execution policies
●   Monitoring and reporting of execution quality

Module 4: Investor Protection and Product Governance
●   Product governance requirements under MiFID II
●   Assessment of target market and distribution strategies
●   Product intervention powers and measures for investor protection

Module 5: Conflicts of Interest Management

- Identification and management of conflicts of interest
- Disclosure requirements for conflicts of interest
- Measures to mitigate conflicts and ensure fair treatment of clients

Module 6: Transaction Reporting and Transparency
- Transaction reporting obligations under MiFIR
- Requirements for pre and post-trade transparency
- Data reporting and publication obligations for investment firms

Module 7: Compliance Monitoring and Surveillance
- Implementing compliance monitoring programs
- Surveillance techniques for detecting market abuse and misconduct
- Reporting and escalation procedures for suspicious activities

Module 8: Regulatory Enforcement and Penalties
- Overview of regulatory enforcement actions under MiFID II and MiFIR
- Penalties for non-compliance with regulatory requirements
- Case studies of enforcement actions and lessons learned

Delivery Format:
- Instructor-led sessions
- Interactive discussions and case studies
- Group activities and exercises
- Assessment quizzes or exams
- Course materials (handouts, presentations, reference materials)

Duration:
The course is typically delivered over a period of 13 weeks, with each module comprising approximately 60-90 minutes of instruction.

Target Audience:
- Compliance officers
- Risk managers
- Legal professionals
- Investment advisors
- Financial analysts
- Executives and directors of investment firms
- Anyone involved in regulatory compliance and client services within financial institutions

ASSESSMENTS.

Forum 5% Mandatory
Midterm Exam: ⋟ 40% (Recommendation 30%)
Final Exam: 30-40%. (Recommendation 40%)
Quizzes Multiple Choice: 25 % (adjustable)
BIBLIOGRAPHY

- TBA