

The Magellan Exchange
GRADUATE/MASTER Course Offerings in English

List is as up-to-date as possible as of 8 September 2016

(Variation may occur; please use this as a general guide only. Credits, course requirements, and eligibility vary.)

Please check eligibility requirements.

Vorarlberg University of Applied Sciences - Dornbirn, Austria

FALL 2016 SEMESTER

Energy Technology & Energy Economics

Energy Markets & Trading
Energy Project

Leadership
Energy Systems

Mechatronics

Advanced Finite Element Analysis
Applied Robotics
Directed Research Seminar
Electronics Fundamentals
Embedded Systems I
Embedded Systems with Constrained Resources

Finite Element Method
Higher Mathematics I and III
Microtechnology
Modeling & Simulation of Mechatronic Systems
New Production Technologies
Sensor Systems

SPRING 2017 SEMESTER

Mechatronics

Computational Fluid Dynamics
Embedded Systems II
Higher Mathematics II
High-Tech Manufacturing

Leadership & Communication
Power Drives
Robotics & Control

HEC-University of Liege - Liege, Belgium

(city campus and Sart Tilman campus are approx. 30 minutes apart by bus)

FALL 2016 SEMESTER

Business

Advanced Corporate Finance & Modeling
Advanced Macroeconomics
Advanced Microeconomics
Applied Microeconomics
Business Case in Business-to-Business
Business Ethics & Corporate Social Responsibility
Change Management
Consumer Behavior
Corporate Finance – Lectures & Seminars
Distribution Management
e-Business & e-Commerce
Economics of Competition & Regulation
Empirical Methods in Financial Markets
Entrepreneurship & Innovation
Environmental & Energy Economics
Estate & Financial Planning
Ethics, Regulation & Compliance in Finance
Financial Economics
Financial Risk Management
Financial Risk Modeling
Fund Industry

Industrial Organization
Games & Information Economics
History of Economic Thought
International & Belgian Taxation
International Finance
International Macroeconomics
International Marketing
International Performance Management
International Relations Organizations
Management Information Systems
Models & Methods in Applied Statistics
Monetary Economics
Multinational Financial Management
Operations Research
Public Economics
Quality, Ethics & Sustainability in Supply Chain Mgmt
Quantitative Methods in Management
Services Marketing & Management
Strategic Intelligence
Strategic Marketing
Web & Text Analytics

Sciences

Advanced Marine Zoology
Advanced Physical Chemistry
Advanced Satellite Oceanography
Advanced Solid State Chemistry
Assessment of Geological Risk
Astroparticles, Part 1
Astrophysics
Atmosphere of the Earth
Biochemistry, Physiology & Aquariology
Biodegradation of Organic Molecules in the Sea
Biogeochemical Cycles in the Ocean
Biogeochemical Cycles in the Polar Ocean & Sea Ice
Biohybrids: Theory & Modeling
Biology of Benthos & Necton Animals
Biology of Marine Mammals
Carbon, Nutrient & Greenhouse Gases in Marine Ecosys.
Celestial Mechanics & Space Trajectories
Characterization of Biomaterials
Characterization of Nanostructures by Scanning Probe
Chemical Oceanography
Chemistry of Materials, Inorganic Materials
Design of Micro & Nanosystems
Design Techniques & Development of Integrated Projects
Discrete Optimization
Ecology of the Coral Reefs
Ecotoxicology & Biodegradation of Marine Pollutants
Evolution & Palaeobiological Inferences
Evolution of the Phanerozoic Biosphere
Fluid Mechanics
Functional & Molecular Marine Microbiology
Geophysical Fluid Dynamics
Global Navigation Satellite Systems
Groundwater Modeling
High-Energy Astrophysics
Internal Geophysics of the Earth & Terrestrial Bodies
Interstellar Medium
Introduction to Astroparticles
Introduction to Machine Learning
Introduction to Marine Ecosystems Modeling
Intro. to Neotectonics, Seismology & Physical
Introduction to Solid State NMR
Introduction to Theory of Computation
Instrumental Optics I
Macromolecular Biochemistry
Macromolecular Chemistry
Macromolecular Physical Chemistry
Magnetic Resonance Imagine: The Basics
Marine Bacteriology
Marine Ecology
Marine Ecotoxicology
Marine Phanerogames Ecology
Marine Plant Biology & Ecology
Marine Sediment Geochemistry
Microfluidics
Mineral Resources
Molecular Approaches to Diversity of Marine Microorg.
Molecular Logic
Nanomaterials, Electrosynthesis & Applications
Numerical Methods in Geophysics
Object-Oriented Programming
Object-Oriented Software Engineering
Observing Earth from Space
Observing the Sky
Operations Research
Physics & Chemistry of Materials
Physics of Functional Oxides
Physics of Magnetic Materials
Physics of Nanomaterials
Physics of Semi-Conductors
Physics of Superconductors
Physiology & Biochemistry of Marine Animals
Physical Chemistry of Nanostructures
Polymers & Environment
Quantum Chemistry
Quantum Field Theory, Part 1
Quantum Modeling of Materials Properties
Remote Sensing
Remote Sensing of the Oceans
Satellite Oceanography
Space Environment
Space Exploration
Special Electronic Devices
Spectroscopy in Astrophysics & Geophysics
Spectroscopy of Materials
Statistical Methods of Analysis of Oceanographic Data
Stellar Structure & Evolution I
Structural Biological Chemistry
Surfaces & Interfaces
Techniques of Sampling in Marine Ecology
Topics in Bioinformatics
Transport Phenomena
Variable Stars
Volcanology

SPRING 2017 SEMESTER

Business

Advanced Econometrics
Audit
Banking & Insurance
Branding & Reputation Management
Business Ethics
Computational Optimization
Consolidation & IFRS
Digital Business
Digital Marketing
Economic Geography
Economics of Innovation
European Economics
Financial Derivatives
Financial Mathematics & Stochastic Calculus

Information Technology Management
International Strategy
Investments & Portfolio Management
Labor Economics
Logistics & Transportation
Marketing Analytics
Operations Planning
Public Finance
Social Innovation
Strategic Performance Management
Strategic Stakes in Globalization
Supply Chain Management
Topics in Health Economics

Sciences

To be determined

Lapland University of Applied Sciences - Rovaniemi, Finland (take courses at 1 campus only)

FALL 2016 SEMESTER

Business (Tornio Campus)

Business Research & Development Methods
Change Management
International Business Strategy

Internationalization of Companies
Northern Business Context

SPRING 2017 SEMESTER

Business (Tornio Campus)

Financial & Performance Management
Intercultural Interaction

International Marketing Management
Knowledge & Innovation Management

ESC Rennes School of Business - Rennes, France

FALL 2016 SEMESTER

Business

Advanced Accounting & Consolidation
Advanced Corporate Finance
Coordination in Supply Chain Management
Corporate Social Responsibility
Database for Direct Marketing and eCRM
Exchange Markets
External Auditing
International Business
International Consumer Behavior
International HR Management I
International Marketing Management
International Talent Management

Introduction to Supply Chain Management
Knowledge Management
Management & Cost Accounting
Marketing of Innovation
Omni-Channel Consumer Behavior
Principles of eCommerce
Procurement & Inventory Management
Project Management
Purchasing & Supply Chain
Quantitative Finance
Strategic Management of Innovation

SPRING 2017 SEMESTER

Business

Advanced Financial Analysis
Business to Business Marketing
Competitive Strategy
Corporate Social Responsibility
Customer Experience Management
Designing User Experience & Web Analytics
Doing Business in France
Financial Engineering & Trading
Financing a New Venture
Franchising Strategy & Business Operations
Global Supply Chain & International Trade
Integrating Online & Offline Marketing Communications
International Financial Reporting
International Human Resource Management II

International Purchasing
Management of Change
Management Control
Management of Distribution & Transportation
Marketing Communication
Marketing Intelligence & Pricing Strategy
Next Organization
Private Equity & Mergers/Acquisitions
Project Management
Purchasing Management
Short-term & Long-term Financing
Sourcing & ePurchasing
Team Development & Management

Aachen University of Applied Sciences - Aachen, Germany

FALL 2016 SEMESTER

Aerospace Engineering (Aachen campus)

Advanced Finite Element
Advanced Measurement & Control Systems
Advanced Project Management (Microsoft Project)
Advanced Space Propulsion
Aerospace Research Project
Aircraft Design II
Applied Computational Fluid Dynamics
Critical Thinking & the Scientific Method
Entrepreneurship
Flight Simulation Technology
Global Automotive Homologation & Mass Production
Introduction to the Aeroelasticity

Mathematical Optimization
Negotiation Strategies & Scientific Reasoning
Powertrain Calibration-Engine
Powertrain Calibration-Transmission
Propulsion System Integration
Space Mission Engineering
Space Utilization & Exploration Project
Transonic Aerodynamics
Vehicle Dynamics & Multi Body System Simulation
Vehicle Engineering – FEM-Simulation & Application
Vehicle Integration

Chemistry & Biotechnology

Business Administration
Fundamental Skills I
Medical Physics
Nuclear Chemistry I
Nuclear Chemistry & Radiation Biology

Nuclear Physics
Nuclear Physics & Radiation Detection
Nuclear Technology
Scientific Skills

Energy Technology (Jülich campus)

Advanced Control Systems
Aerosol Technology
Basics & Application of Chemical Reaction Theory
Business Administration
Energy Economics & Policy
Finite Element Methods
Industrial Energy Technology
Life Cycle Assessment

Modeling of Material Transport
Modeling of Systems & Processes
Power Plant Technology
Renewable Energies
Scenario Technology
Simulation & Optimization in Virtual Engineering
Stationary Application of Fuel Cells

Mechanical Engineering & Mechatronics (Aachen campus)

Advanced Control Technology
Advanced Engineering Mathematics
Advanced Fabrication Technology
Advanced Motion Control
CFD Applications
Fundamentals of Electrical Engineering

Fundamentals of Mechanical Engineering
Mathematical Optimization
Mechatronic Systems Simulation
Micromechatronic Systems
Sensors & Actuators
Virtual Reality & Graphical Simulation

Medical Engineering & Technomathematics (Jülich campus)

Artificial Organs I
Biosensors/Chemical Sensors
Cardiovascular Mechanics
Cellular & Molecular Biophysics I
Computational Fluid Dynamics (CFD)
Continuum Mechanics

Fluid Dynamics
Laser Applications in Medicine & Biology
Medical Imaging
Research Planning & Scientific Writing
Research Project I

SPRING 2016 SEMESTER

Aerospace Engineering (Aachen campus)

Actuator Systems
Advanced Automotive Electronics
Advanced CAD Methods
Advanced Control Technology
Advanced Project Management (Microsoft Project)
Advanced Space Dynamics
Aerospace Research Project
Aircraft Design
The Art of Robotics
Critical Thinking & the Scientific Method
Design of Electronic Powertrain Management Systems

Dynamics of Flight/Flight Control
Engineering Meets Design
Entrepreneurship
Environmental Effects of Aircraft
Environmental Effects of Vehicle Powertrain
Hypersonic Aerodynamics & Atmospheric Entry
Introduction to the Aeroelasticity
Space Environment
Vehicle Acoustics
Vehicle Engineering-FEM-Simulation & Application

Business (Aachen campus)

Cross-Cultural Competencies
Finance for Global Managers
Governance & Responsibility

International Economics
International Supply Chain Management
Management of Sales & Services

Chemistry & Biotechnology

Fundamental Skills II
Fundamentals of Engineering
Management Skills
Nuclear Applications

Nuclear Chemistry & Radiation Biology
Nuclear Physics & Radiation Detection
Study Project Nuclear Applications

Energy Technology (Jülich campus)

Advanced Waste Water Treatment
Applied Thermodynamics & Heat Transfer
Assessment of Energy Systems
CARNOT: Simulation Program for Solar Thermal Systems
Energy Engineering
Energy Seminar
Hydro Power
International Management I & II

Management Techniques for Engineers
Materials in Energy Systems
Mathematical Tools & Simulation
Nuclear Physics
Physics & Technology of Solar Cells & Modules
Simulation & Optimization in Virtual Engineering
Waste Incinerators
Waste Problems

Mechanical Engineering & Mechatronics (Aachen campus)

Advanced Control Technology
Advanced Electronic Systems

Computer Science
Industrial Communication

Medical Engineering & Technomathematics (Jülich campus)

Anatomy
Artificial Organs II
Biochemistry
Biomechanics
Cell Biology
Cellular & Molecular Biophysics II
Chemistry
Dynamic Systems & Computer Modeling
Electrical Engineering
Extracorporeal Cardiovascular Fluid Mechanics
Finite Element Method
Fluid Dynamics

Laser Technology
Material Sciences
Mathematics
Mechanics
Medical Measurement
Medical Physics
Molecular Biology & Genetics
Physics
Physics of Medical Imaging
Physiology
Written Project

Schmalkalden University of Applied Sciences – Schmalkalden, Germany

FALL 2016 SEMESTER

Business

Business Strategies in Asia
Econometrics
International & European Economic Law
International Financial Markets & Portfolio Select Theory

International Management
Labor Economics
Political Philosophy

Computer Science

Image Processing & Compression Standards

Model Driven Software Engineering

SPRING 2016 SEMESTER

Business

Economic Philosophy
Experimental Econometrics
Institutional Economics
International Marketing Research

Management Control Systems
Philosophy of Science
Regional Economics
Strategic International Human Resource Management

Computer Science

Advanced Topics from Distributed Systems
Augmented & Virtual Environments Selected Chapters SAP
Computer Animation
Human-Computer Interaction

Information Access & Mining
Mobile Information Architectures
Network Configuration & Design
Project Management

Valencia Polytechnic University – Valencia, Spain

FALL 2016 SEMESTER

Architecture

Architectural Workshop
Construction Project
Full Graphical Project Management

Graphical, Chromatic Design: Architectural & Urban Space
Structural Executive Project

Engineering in Geodesy, Cartography & Surveying

Distribution of Spatial Information
Geospatial Applications in Mobile Devices
Geovisualization & 3D Modeling

Programming for Geospatial Applications
Remote Sensing & Cartographic Updating
Instrumentation for Spatial Data Acquisition

Telecommunication Engineering

Applications TIC in the Public Health Sector
Business Management Skills through Cinecoaching
Content Distribution Mechanisms Over IP Networks
Digital Communication Systems
Distributed Real Time Systems
Image & Video Processing Techniques
Mobile & Wireless Communication Systems
Nanophotonics
Network Architecture & Protocols for Mobile Comm.
Optical Signal Processing in Optical Networks

Optical Wireless Systems
Photonic Integrated Circuits: From Technology to Business
Professional Seminaries I & II
Satellite Communication Systems
Services Marketing
Systems/Technology Integration on Telecomm Engineering
Telecommunications Economics & Regulation
Telecommunication Networks & Service Implementation
Traffic Management & Quality of Service

SPRING 2017 SEMESTER

Civil Engineering

Advanced Theory of Structures
Advanced Surface Hydrology
Art & Aesthetics in Civil Engineering
Conservation & Maintenance of Structures

Dam & Reservoir Design
Environmental Engineering
Environmental Engineering
Integrated Construction Project Management

Engineering in Geodesy, Cartography & Surveying

Architectural Heritage Documentation Techniques
Environmental Cartographic Models
Geostatics & Multivariate Analysis

GIS Application Development
Sensor Georeferencing & Navigation
Web Development & Geoportals

Telecommunication Engineering

Seminar: Ad Hoc & Mesh Networking
Seminar: Communication Networks Simulation
Seminar: Practical Design of Antennas for Wireless Devices
Seminar: Simulation of Communication Systems

Seminar: Technology Innovation & Strategy
Seminar: Wireless Sensor Networks Applications/Systems
Wireless Sensor Networks Applications & Systems