

# Pre-approved Courses 2023

IT-University of Copenhagen

The purpose of this document is to provide an overview of which courses previously have been pre-approved for studies abroad.

Please note that we cannot guarantee that your courses will be approved as listed. Each application for approval must be documented as described at ITU Student, and each application will be assessed individually.

Please also note that the courses are not listed so that the course at the host university is equivalent to the ITU course regarding ECTS weight or listed to show the exact combination of courses for an individual specialisation. You might need to apply for more courses to cover a course abroad or at ITU, and every individual specialisation will be assessed individually.

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## 1. BSc Global Business Informatics

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
California State University Long Beach (USA)	IT, Globalization & Culture	15	Communication Theory and Technology (COMM 423)	
	IT, Globalization & Culture	15	International Business (CBA 300)	
	IT, Globalization & Culture	15	Principles of management and operations (MGMT 300)	
	IT, Globalization & Culture	15	Management and Society (MGMT 326)	
	Elective	7.5	Cybersecurity in Business (I S 360)	
	Elective	7.5	Business Communication (I S 301)	
	Elective	7.5	Introductory Business Statistics (STAT 118)	
	Elective	7.5	Systems Integration and Security (I S 456)	
	Elective	7.5	Applications of AI, Blockchain, and Internet of Things (I S 435)	
	Elective	7.5	Discrete Structures with Computing Applications (CECS 228)	
	Elective	7.5	Introduction to Computer Engineering and Computer Science (CECS 105)	
Swinburne University, Sarawak (Malaysia)	IT, Globalization & Culture	15	Global Business Across Cultures	7.5
	IT, Globalization & Culture	15	Contemporary Management Principles	7.5
	Elective	7.5	Business Digitalisation	7.5
	Elective	7.5	Innovative Business Practice	7.5
	Elective	7.5	Human Ressource Practices	7.5
	Elective	7.5	Organisational Behaviour	7.5
Hawaii Pacific University, Hawaii (USA)	IT, Globalization & Culture	15	Information Tools for Business	6
	IT, Globalization & Culture	15	International Business Management	6
	IT-Enabled Supply Chain Management	7.5	Retail Management	6
	IT-Enabled Supply Chain Management	7.5	Principles of Management	6
	Elective	7.5	The Sustainability Challenge	6
	Elective	7.5	Cross-Cultural Psychology	6
Auckland University of Technology (New Zealand)	IT, Globalization & Culture	15	Digital Transformation and Social Impact	7.5
	IT, Globalization & Culture	15	Dynamic Environments	7.5

	Elective	7.5	Introduction to Programming for Business Analytics	7.5
	IT-Enabled Supply Chain Management	7.5	Logistics and Supply Chain Management	7.5
Hanyang University (South Korea)	IT-enabled Supply Chain Management	7.5	Distribution Channel Management	6
	IT, Globalization & Culture	15	Business Ethics and Sustainability Management	6
	IT, Globalization & Culture	15	International Business	6
	IT, Globalization & Culture	15	Asian Business and Marketing	6
	Elective	7.5	Personnel Management	6
	Elective	7.5	Organizational Behavior	6
Inha University (South Korea)	IT, Globalization & Culture	15	Seminar on Global Logistics Excellence – Asia Pacific School of Logistics	5
	IT-enabled Supply Chain Management	7.5	e-Business (Capstone Design) - Industrial Engineering	5
	IT, Globalization & Culture	15	Organizational Management and Leadership – Public Administration	5
	IT-enabled Supply Chain Management	7.5	Six Sigma Quality Management – Business Administration	5
	IT, Globalization & Culture	15	Cultural Studies and Cyberspace – Media & Communication	5
	Elective	7.5	Organizational Behaviour – Business Administration	5
Queensland University of Technology (Australia)	IT, Globalization & Culture	15	Global Business	7.5
	IT, Globalization & Culture	15	Bridging Cultures	7.5
	IT, Globalization & Culture	15	Business Environment	7.5
	Elective	7.5	Managing People	7.5
	Elective	7.5	The Future Enterprise	7.5
	IT-enabled Supply Chain Management	7.5	Monitoring and Managing Operational Performance	7.5
	Elective	7.5	Data Analytics for Business Insight	7.5
	Elective	7.5	Accounting Processes and Systems	7.5
	Elective	7.5	Fundamentals of Data Science	7.5
	Elective	7.5	Data and Web Analytics	7.5
	Elective	7.5	Modern Data Management	7.5
Singapore Management University (Singapore)	IT, Globalization & Culture	15	ECON203 (International Economics)	7.5
	IT, Globalization & Culture	15	ECON113 – Economics of Globalization	7.5
	IT, Globalization & Culture	15	MGMT205 (International Business)	7.5
	IT-enabled Supply Chain Management	7.5	OPIM321 (Supply Chain Management)	7.5
	IT-enabled Supply Chain Management	7.5	OPIM324 (Global Supply Chains)	7.5

	IT-enabled Supply Chain Management	7.5	ECON113 – Economics of Globalization	7.5
	IT-enabled Supply Chain Management	7.5	OPIM314 (Logistics & Transportation Management)	7.5
	IT-enabled Supply Chain Management	7.5	OPIM348 – Supply Chain Analytics	7.5
	Elective	7.5	OPIM348 – Supply Chain Analytics	7.5
	Elective	7.5	CS206 – Software Product Management	7.5
	Elective	7.5	ECON113 – Economics of Globalization	7.5
	Elective	7.5	ECON241 – Strategic Thinking	7.5
	Elective	7.5	IS.215 (Digital Business – Technologies and Transformation)	7.5
	Elective	7.5	MKTG.220 – Digital Marketing	7.5
	Elective	7.5	MKTG 225 - Customer Relationship Management	7.5
	Elective	7.5	MGMT 310 - Leading New Ventures to Growth	7.5
University Carlos III of Madrid (Spain)	Elective	7.5	Digital product development	6
	IT-enabled Supply Chain Management	7.5	Digital supply chain	6
	IT, Globalization & Culture	15	Global business management	6
	IT, Globalization & Culture	15	Global information systems	6
	Elective	7.5	Organization design	6
NOVA University Lisboa (Portugal)	IT, Globalization & Culture	15	Data Analysis	6
	IT, Globalization & Culture	15	Market Research	4
	IT, Globalization & Culture	15	Business Strategy and Digital Transformation	6
	IT, Globalization & Culture	15	Project of Information Systems Powered by Webasto	8
	IT-enabled Supply Chain Management	15	Business Strategy and Digital Transformation	6
	IT-enabled Supply Chain Management	7.5	Personal Development II	2
	IT-enabled Supply Chain Management	7.5	Artificial Intelligence	6
	Elective	7.5	Data Pre-Processing and Visualization	6
	Elective	7.5	Cybersecurity	4
	Elective	7.5	Computation I	7
	Elective	7.5	Data Pre-Processing	4
	Elective	15	Geospatial Intelligence	4
	Elective	15	Project of Information Systems Powered by Webasto	8
City University Hongkong (HKSAR)	IT, Globalization and Culture	15	International Business	6
	IT, Globalization and Culture	15	China Business Culture and Management	6
	IT, Globalization and Culture	15	Global Business Culture and Management	6

	IT, Globalization and Culture	15	Managing Multinationals	6
	IT-Enabled Supply Chain Management	7.5	Business Intelligence and Analytics	6
	IT-Enabled Supply Chain Management	7.5	Big Data Management	6
	Elective	7.5	Enterprise Data Mining	6
	Elective	7.5	Machine Learning for Business	6
	Elective	7.5	Applications of Game Theory to Business	6
	Elective	7.5	Organizational Behavior and Human Resources Management	6

## 2. BSc Digital Design and Interactive Technologies

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
University of Technology Sydney (Australia)	Digital Material & Interactive Artefacts	15	Network Fundamentals	7.5
	Digital Material & Interactive Artefacts	15	Introduction to Mechatronics Engineering	7.5
	Designing Sustainable Futures	7.5	Digital Systems for Sustainable Production	7.5
	Designing Sustainable Futures	7.5	Product Design and Sustainability	7.5
	Designing Sustainable Futures	7.5	Biodesign	7.5
	Network Society	7.5	Introduction to Data Analytics	7.5
	Co-Design	15	Co-evolution of Problem and Solution	7.5
	Elective	7.5	Design Thinking for Social Innovation	7.5
	Elective	7.5	Introduction to Information Systems	7.5
	Elective	7.5	Communication for IT Professionals	7.5
	Elective	7.5	Web computing	7.5
	Elective	7.5	Business Requirements Modelling	7.5
Hanyang University (Korea)	A combined package consisting of Network Society (7.5 ECTS), Designing Sustainable Futures (7.5 ECTS) and 2x 7,5 ECTS electives	30	Marketing Research AI+X Introduction to Data Science Architectural Environmental Design Human-Computer System Design Game Programming Language	30
Queensland University of Technology (Australia)	Elective	7.5	Visual Communication Design	7.5
	Elective	7.5	ID Studio 3: Interaction and Experience	7.5
	Elective	7.5	Web Computing	7.5
	Network Society	7.5	Cyber Security	7.5
	Design af bæredygtige fremtider	7.5	Impact Lab: Place and Context	7.5
The New School – Parson Paris (France)	Designing sustainable futures	7.5	Sustainable systems	6
	Designing sustainable futures	7.5	Regenerative foundation	6
	Elective	7.5	Time	6
	Elective	7.5	Strategic Management	6
	Elective	7.5	Dimensions	6
	Co-design	15	Core studio 2 spatial + Core lab 2 spatial	12

	Co-design		Core Lab: 4 Urban + Core studio: 4 Urban	12
Georgia Tech (USA)	Elective	7.5	Principles of Information Design	7.5
	Elective	7.5	Human Computer Interface Design and Evaluation	7.5
	Elective	7.5	Introduction to User Interface Design	7.5
	Elective	7.5	Introduction to Computational Media	7.5
	Co-Design	7.5	Principles of Visual Design	7.5
	Co-Design	7.5	Principles of Interaction Design	7.5

### 3. BSc Software Development

None



## 4. BSc Data Science

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
University of Technology Sydney (Australia)	Security and Privacy	7.5	Cybersecurity	7.5
	Software Development and Software Engineering	7.5	Programming 2	7.5
	Technical Communication	7.5	Communication for IT Professionals	7.5
	Elective	7.5	Image Processing and Pattern Recognition	7.5
	Elective	7.5	Cloud Computing Infrastructure	7.5
	Elective	7.5	Internet of Things	7.5
	Elective	7.5	Information Retrieval and Web Search	7.5
	Elective	7.5	Advanced Topics in Statistical Machine Learning	7.5
University of New South Wales (Australia)	Elective	7.5	Robotic Software Architecture	7.5
	Security and Privacy	7.5	Security Engineering and Cyber Security	7.5
	Software Development and Software Engineering	7.5	Software Engineering Fundamentals	7.5
Auckland University of Technology (New Zealand)	Security and Privacy	7.5	Information Security Technologies	7.5
	Software Development and Software Engineering	7.5	Program Design and Construction	7.5
	Software Development and Software Engineering	7.5	Software Construction	7.5
	Software Development and Software Engineering	7.5	Object Oriented Programming for Engineers	7.5
	Technical Communication	7.5	Academic Communication: Conventions and Expectations	7.5
	Elective	7.5	Data Mining and Knowledge Engineering	7.5
	Elective	7.5	Intelligent Agents and Environments	7.5
	Elective	7.5	Forecasting	7.5
Dankook University (Korea)	Security and Privacy	7.5	Introduction to Information Security	6
	Software Development and Software Engineering	7.5	Global Software Engineering	6
	Technical Communication	7.5	SW Technical English Writing and Presentation	4
	Elective	7.5	Business Ethics	6
	Elective	7.5	United Nations	6

	Elective	7.5	East Asian Culture & Politics	6
	Elective	7.5	Korean Society & Politics	6
	Elective	7.5	Strategic Management	6
	Elective	7.5	Global Entrepreneurship	6
	Elective	7.5	Operating System	8
	Elective	7.5	Advanced Mobile Lab 2	2
	Elective	7.5	SW Convergence Coding II	6
	Elective	7.5	Systems Programming	6
	Elective	7.5	Mobile Programming	6
	Elective	7.5	Discrete Mathematics	6
	Elective	7.5	Introduction to Mobile Systems	4

## 5. MSc Digital Innovation and Management

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
Autonomous University of Barcelona (Spain)	Individual specialisation	15	Advanced Digital Marketing for Managers	6
	Individual specialisation	15	Business Ethics	6
	Individual specialisation	15	Managing Pricing Strategies	6
	Individual specialisation	15	Service Economics	6
	Individual specialisation	15	Intercultural Communication and Management	6
	Individual specialisation		Advanced Digital Marketing for Managers	
	Digital Organizing and Transformation	7.5	Developing Creativity and Creative Cultures In Organisations	6
	Individual specialisation	15	Developing Creativity and Creative Cultures in Organizations	
	Elective	7.5	Intercultural Communication and Management	6
	Elective	7.5	Business Ethics	6
	Elective	7.5	Developing Creativity and Creative Cultures in Organizations	6
	Elective	7.5	Advanced Digital Marketing for Managers	6
The University of Cape Town (SA)	Elective	7.5	Consumer Behaviour	9
	Elective	7.5	Digital Marketing	9
	Digital Organizing and Transformation	7.5	People Management	9
Queensland University of Technology Sydney (Australia)	Individual specialisation	15	Consulting and Change Management	7.5
	Individual specialisation	15	Consumer Insights for Marketing Success	7.5
	Individual specialisation	15	Public Relations Foundations	7.5
	Individual specialisation	15	Developing Cultural Intelligence	7.5
	Digital Organizing and Transformation	7.5	Consulting And Change Management	7.5
	Elective	7.5	Consumer Insights for Marketing Success	7.5
	Elective	7.5	Manage Advertising	7.5
	Elective	7.5	Strategies For Creative Advertising	7.5
	Individual specialisation	7.5	Leadership in Digital Health Management	7.5
	Individual specialisation	7.5	Leadership in Healthcare	7.5
	Individual specialisation	7.5	Health Statistics	7.5
	Individual specialisation	7.5	Data Exploration and Mining	7.5
	Individual specialisation	7.5	Consulting and Change Management	7.5
	Elective	7.5	Health Statistics	7.5
	Elective	7.5	Data Exploration and Mining	7.5
Frankfurt School of Finance and Management (Germany)	Individual Specialisation	15	Evidence-based Management	6
	Individual Specialisation	15	Diversity Management	6
	Individual Specialisation	15	FinTech: Disruptive Innovation	6
	Individual Specialisation	15	Corporate Strategy & Scaling	6
University of Montpellier (France)	Individual Specialisation	15	Technologies Management	3
	Individual Specialisation	15	Business Game	3
	Individual Specialisation	15	Business Process Management	3
	Individual Specialisation	7.5	Innovation Management	3

	Digital Transformation and Organizing	7.5	International Strategy	3
	Digital Transformation and Organizing	7.5	European Culture	3
	Digital Transformation and Organizing	7.5	IT for Human Resource Management	3
University of Technology Sydney (Australia)	Individual specialisation	7.5	Human-centred Design Methods	7.5
	Individual specialisation	7.5	Data Driven Storytelling Studio	7.5
	Elective	7.5	Enabling Enterprise Information Systems	7.5
	Digital Organizing and Transformation	7.5	Managing Change	7.5
	Individual specialisation	15	Enabling Enterprise Information Systems	7.5
	Individual specialisation	15	Business Systems Design	7.5
	Individual specialisation	15	Enterprise Architecture Practice	7.5
	Individual specialisation	15	Creative Problem Solving	7.5
	Individual specialisation	15	Project Management	7.5
	Individual specialisation	15	Human-Centred Design Research Methods	7.5
	Elective	7.5	Enabling Enterprise Information Systems	7.5
	Elective	7.5	Creative problem solving	7.5
	Elective	7.5	Strategic Supply change management	7.5
	Elective	7.5	Project Management	7.5
	Elective	7.5	Sustainability and Information Systems	7.5
	Elective	7.5	Organisational Sustainability: Analysis and Practice	7.5
	Specialisation	7.5	Future of Work	7.5
	Specialisation	7.5	Blockchain Strategy	7.5
	Process Innovation	15	Supply Chain Technology Management	7.5
	Process Innovation	15	Business Intelligence	7.5
	Programming and Data Processing	7.5	Data Processing Using Python	7.5
	Digital Economics (Blockchain Economics)	15	individual specialisation	15
	Programming and Data Processing	7.5	Python Programming for Data Processing	7.5
	Digital Economics (Blockchain Economics)	15	Operations and Quality Management	7.5
	Digital Economics (Blockchain Economics)	15	Business and Social Impact	7.5
	Process innovation	15	Strategic Supply Chain Management	7.5
Royal Melbourne Institute of Technology (Australia)	Organizational Change	7.5	International Strategy and Innovation	7.5
	Individual Specialisation	7.5	Digital Risk Management and Information Security	7.5
	Individual Specialisation	7.5	Financial Analytics for Managerial Decisions	7.5
	Elective	7.5	Management of Technology and Innovation	7.5
	Elective	7.5	People and Organizations	7.5
	Elective	7.5	Leading in the Age of Digital Disruption	7.5
	Elective	7.5	Managing Across Cultures	7.5
	Individual Specialisation	15	Big Data	3

Universidad Politécnica De Madrid (Spain)				
	Individual Specialisation	15	Data Visualization	3
	Individual Specialisation	15	Data Processes	4.5
	Individual Specialisation	15	Machine Learning	4.5
	Individual Specialisation	15	Statistical Data Analysis	4.5
	Digital Organizing and Transformation	7.5	Innovation and Entrepreneurship study	6
	Digital Organizing and Transformation	7.5	Software Project Management	4
	Digital Organizing and Transformation	7.5	Management, Relationships and Communication in Working Groups	4
	Digital Organizing and Transformation	7.5	Management Strategies and Non-classical Software Development Methodologies	4
	Digital Organizing and Transformation	7.5	Introduction to Innovation and Entrepreneurship Management	6
	Digital Organizing and Transformation	7.5	Agile software development: Agile practices and Agile usability	4
	Elective	7.5	Introduction to Human Computer Interaction	4
	Elective	7.5	Devices and Biometric Applications for e-Health	4
	Elective	7.5	E-health: Promoting Active and Healthy Ageing	4.5
	Elective	7.5	Statistical Data Analysis	4.5
	Elective	7.5	Scientific Method	2
	Elective	7.5	Design Methods for Human Computer Interaction	3
	Elective		Introduction to Human Computer Interaction	3
	Elective	7.5	User Experience and Mobile Interaction	6
	Individual Specialisation	15	Design Methods for Human Computer Interaction	3
	Individual Specialisation	15	Introduction to Human Computer Interaction	3
	Individual Specialisation	15	User-experience and mobile interaction	6
	Individual Specialisation	15	Challenges for accessible Computing for people with functional diversity	4
	Individual Specialisation	15	Intelligent Virtual Environments: Technologies, Architectures and Applications	4
	Individual Specialisation	15	Devices and Biometric Applications for e-Health	4
	Individual Specialisation	15	E-health: Promoting Active and Healthy Ageing	4.5
	Individual Specialisation	15	I&E Study	
Reykjavik University (Iceland)	Individual Specialisation	15	Advanced Business Informatics	7.5
	Individual Specialisation	15	Innovation and Entrepreneurship: A field of knowledge and practice	7.5
	Digital organizing and transformation	7.5	Advanced Topics in Emerging technologies	7.5
	Digital organizing and transformation	7.5	Change Management and Leadership	7.5

	Elective	7.5	Advanced Business Informatics	7.5
	Elective	7.5	Enterprise Architecture	7.5
Politecnico di Milano (Italy)	Individual Specialisation	15	Advanced user interfaces	5
	Individual Specialisation	15	Design and implementation of mobile applications	5
	Individual Specialisation	15	Design thinking for business	5
	Individual Specialisation	15	Strategy and marketing	10
	Individual Specialisation	15	Digital Innovation for customer experience design	8
	Elective	15	Foundations of Artificial Intelligence	5
	Elective	15	Computer Ethics	5
Monash University (Australia)	Individual Specialisation	15	Managing innovation	7.5
	Individual Specialisation	15	Business environment	7.5
	Individual Specialisation	15	Strategic leadership	7.5
	Individual Specialisation	15	Professional development	7.5
Massachusetts Institute of Technology, Boston (USA)	Elective	7.5	Organizing for Innovation	3
	Elective	7.5	AI for Impact: Solving Societal- Scale Problems	5
	Elective	7.5	Data, Models, and Decisions	5
	Elective	7.5	Strategic Leadership Communication	3
	Elective	7.5	Platform Strategy and Entrepreneurship	3
	Elective	7.5	Communicating with Data	3
	Elective	7.5	Explorations in Management	2
	Elective	7.5	Economic Analysis for Business Decisions	3

## 6. MSc Digital Design and Interactive Technologies

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
Queensland University of Technology Sydney (Australia)	Elective	7.5	Biomedical Data Science	7.5
	Elective	7.5	Principles of Software Security	7.5
	Elective	7.5	Computer Systems Fundamentals	3.75
	Elective	7.5	Introduction to Security and Networking	3.75
	Individual Specialisation	7.5	Interaction Design for Emerging Technologies	7.5
	Individual Specialisation	7.5	Human Information Interaction	7.5
	Værdier og etik i design	7.5	Sustainable Urban Design	7.5
Politecnico di Milano (Italy)	Elective	7.5	Trend Forecasting and Strategic Innovation	6
	Elective	7.5	Hardware & Software technologies for design	6
	Værdier og etik i design	7.5	Inclusive design	6
	Individual Specialisation	15	Digital innovation for customer experience design	6
	Individual Specialisation	15	System design for sustainability	6
	Individual Specialisation	15	Designing and testing for inclusivity	6
	Individual Specialisation		Business Innovation	
	Individual Specialisation		Digital Innovation for customer experience design	
Aalto University (Finland)	Værdier og etik i design	7.5	Thinking Practices in Art & Media	6
	Værdier og etik i design	7.5	Introduction to media art and culture	3
	Individual Specialisation	15	Physical Computing	6
	Individual Specialisation	15	Designing Services with emerging Technologies	3
	Individual Specialisation	15	Introduction to Information Design	3
	Individual Specialisation	15	Interaction Design	3
	Elective	7.5	Game Design	6
University of Technology Sydney (Australia)	Individual Specialisation	15	Advanced Interaction Design	7.5
	Individual Specialisation	15	Interactive Media	7.5
	Værdier og etik i design	7.5	Human-Centered Design Methods	7.5
Università degli studi di Milano	Elective	7.5	Digital Society	9

	Værdier og etik i design	15	Globalization and Cultural Diversity	6
	Individual Specialisation	15	Big Data and Digital Methods	12
	Individual Specialisation	15	Datafied Societies	6



## 7. MSc Software Design

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
Hawaii Pacific University (USA)	Elective	7.5	Bus Analyt Big Data Rev	7.5
Queensland University of Technology Sydney (Australia)	Individual specialisation	7.5	IFN657 – Principles of software security	7.5
	Individual specialisation	7.5	IFN509 - Data Exploration and Mining	7.5
	Individual specialisation	7.5	ENN524 - Mobile Network Engineering	7.5
Koc University (Turkey)	Individual specialisation	15	Introduction to Machine Learning	6
	Individual specialisation	15	Introduction to Data Science with Python	6
	Individual specialisation	15	Computer Vision with Deep Learning	6
	Individual specialisation	15	Data privacy and security	6
	Individual specialisation	15	Fundamentals of biological databases	6
	Individual specialisation	15	Introduction to computational social sciences	6
	Individual specialisation	15	Interface Design	6
	Individual specialisation	15	Advanced data analysis python for social sciences	6
	Individual specialisation	15	Foundations for Cyber Security	6
	Elective	7.5	Data Privacy and Security	6
	Elective	7.5	Modern Cryptography	6
	Elective	7.5	Introduction to data science with python	6
	Elective	7.5	Cloud computing & Security	6
	Elective	7.5	Network Models and Optimization	6
	Elective	7.5	Cloud Computing and Security	6
	Elective	7.5	Foundations for Cyber Security	6
	Elective	7.5	Cyber forensics	6
Kyoto University (Japan)	Elective	7.5	System Verification	
	Individual specialisation	7.5	Multiagent Systems	
	Individual specialisation	7.5	Computational Learning Theory	
Technical University Munich (Germany)	Elective	7.5	Solving Information Systems Problems Through Data Science Methods	10
	Elective	7.5	Advanced Seminar Blockchain Technologies	5
	Elective	7.5	Master Practical Course: Edge Computing and the Internet of Things	10
	Individual specialisation	15	Machine Learning	8
	Individual specialisation	15	Introduction to Deep Learning	6
University of Oslo (Norway)	Elective	7.5	Natural Language Processing	7.5
	Individual specialisation	7.5	Deep Learning for Autonomous Systems	7.5
	Individual specialisation	7.5	Multi-Agent Systems	7.5
Politecnico di Milano (Italy)	Individual specialisation	5	Data Mining	5

	Individual specialisation	5	Artificial Neural Networks and Deep Learning	5
	Individual specialisation	5	Advanced User Interfaces	5

## 8. MSc Computer Science

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
Maastricht University (Netherlands)	Individual Specialisation	15	KEN4259 Advanced Natural Language Processing	6
	Individual Specialisation	15	KEN4154 Advanced Concepts in Machine Learning	6
	Individual Specialisation	15	KEN4113 Data Mining	6
	Individual Specialisation	15	KEN 4111 Agents and Multi-Agent Systems	6
	Elective	7.5	KEN 4123 Intelligent Search & Games	6
	Elective	7.5	KEN 4242 Model Identification and Data Fitting	6
	Elective	7.5	KEN4221 Stochastic Decision Making	6
	Elective	7.5	KEN4130 Research Project MAI1	6
	Elective	7.5	KEN4222 Signal and Image Processing	6
	Elective	7.5	KEN 4123 Intelligent Search & Games	6
	Elective	7.5	KEN 4242 Model Identification and Data Fitting	6
	Elective	7.5	KEN4221 Stochastic Decision Making	6
National Taipei University of Technology (Taiwan)	Elective	7.5	6505153 Deep Learning and Internet of Things	
	Elective	7.5	3105130 Pattern Recognition	
	Elective	7.5	AS05004 Big Data Analytics	
	Elective	7.5	Big Data Mining and Applications	
	Elective	7.5	309193 Prototyping and Interaction Design	
	Elective	7.5	309335 Mobile Communications	
	Elective	7.5	5705050 Entrepreneurship and Business Planning	
	Individual Specialisation	15	5905117 Digital Image Processing	
	Individual Specialisation	15	310232 Cross Culture Management	
	Individual Specialisation	15	309194 Interactivity in Smart City	
	Individual Specialisation	15	3105205 Deep Learning for Digital Image Analysis	
	Individual Specialisation	15	3615050 Building Deep Learning Applications	
	Individual Specialisation	15	5905141 Computer Vision	
	Individual Specialisation	15	Building Deep Learning Applications	

	Individual Specialisation	15	IoT Systems Design and Business Application	
Charles University Prague (Czech)	Individual Specialisation	15	NTIN103 Introduction to Parameterized Algorithms	5
	Individual Specialisation	15	NDBI034 Multimedial Retrieval	4
	Individual Specialisation	15	NSWI072 Data Compression Algorithms	3
	Individual Specialisation	15	NTIN106 Implementation of Algorithms and Data Structures	3
	Individual Specialisation	7.5	NAIL116 Social Networks and their Analysis	5
	Individual Specialisation	7.5	NTIN090 Introduction to Complexity and Computability	4
	Individual Specialisation	7.5	NTIN022 Probabilistic Techniques	5
	Individual Specialisation	7.5	NDMI067 Flows, Paths and Cuts	3
	Elective	7.5	NOPX042 Constraint Programming	6
	Elective	7.5	NAIL069 Artificial Intelligence 1	4
	Elective	7.5	NPRG058 Advanced Programming in Parallel Environment	6
	Elective	7.5	NTINO023 Dynamic Graph Data Structures	3
	Elective	7.5	NOPT018 Fundamentals of Nonlinear Optimization	5
	Elective	7.5	NDMI010 Graph Algorithms	3
	Elective	7.5	NMAI067 Logic in Computer Science	3
	Elective	7.5	NTIN085 Selected Topics in Computational Complexity 1	4
	Elective	7.5	NDMI037 Geometric Representations of Graphs 1	3
	Elective	7.5	NDMI028 Linear Algebra in Combinatorics	5
	Elective	7.5	NTIN097 Hypercube Structures	3
	Elective/specialisation	7.5	Probabilistic Robotics	6
	Elective/specialisation	7.5	Mobile Robotics	3
	Elective	7.5	Deep Learning	8
	Elective	7.5	Dialogue Systems	5
	Elective	7.5	Algorithms in Speech Recognition	5
	Elective	7.5	Computer Vision	5
	Elective	7.5	Computer Graphics for Game Development	5
	Elective	7.5	NLP Applications	5
	Elective	7.5	Human-like Artificial Agents	5
	Elective	7.5	Multiagent Systems	5
	Elective	7.5	Applications of Neural Networks Theory	3
	Elective	7.5	Data Mining	5

Università della Svizzera italiana (Switzerland)	Individual Specialisation	7.5	Software Analysis	6
	Individual Specialisation	7.5	Software Quality and Testing	6
	Elective	7.5	Visual Analytics	6
	Elective	7.5	Computational Fabrication	6
	Elective	7.5	Robotics	6
Vrije University, Netherlands	Individual Specialisation	7.5	Selected Areas in Cryptology	8
	Elective	7.5	X 405041 Coding and Cryptology	6
	Elective	7.5	XM 0124 Software Threat Analysis	6
	Elective	7.5	XM 0087 Ethics and Privacy	6
	Elective	7.5	X405100 Binary and Malware Analysis	6
	Elective	7.5	XM 0122 Systems Seminar	6
	Elective	7.5	XM 0098 Security Experiments and Measurements	6
	Elective	7.5	X 418156 Statistics with R	6
Queensland University of Technology (Australia)	Individual Specialisation	7.5	IENN523 Advanced Network Engineering	7.5
	Elective	7.5	IFN648 Applied Cryptography	6
	Elective	7.5	IFN666 Web and Mobile Application Development	6
	Elective	7.5	IFN509 Data Exploration and Mining	6
	Elective	7.5	IFN507 Network Systems	6
Polytechnic University of Catalonia - Barcelona School of Informatics (Spain)	Individual Specialisation	7.5	Advanced Human Languages Technologies	5
	Individual Specialisation	7.5	Complex Networks	5
	Individual Specialisation	7.5	Mining Unstructured Data	6
	Individual Specialisation	7.5	Debates On Ethics of Data Science	3
	Individual Specialisation	7.5	Cloud Computing and Big Data Analytics	6
	Individual Specialisation	7.5	Professional Practice in Artificial Intelligence	3
	Individual Specialisation	7.5	Decentralized Systems	6
	Individual Specialisation	7.5	Semantic Data Management	6
	Individual Specialisation	7.5	Multiagent System Design	4
	Individual Specialisation	7.5	Self Organizing Multiagent Systems	4.5
	Elective	7.5	Cloud Computing and Big Data Analytics	6
	Elective	7.5	Supervised and Experiential Learning	4.5
	Elective	7.5	Deep Learning	4.5
	Elective	7.5	Object Recognition	4

	Elective	7.5	Probabilistic Graphical Models	4.5
	Individual Specialisation	7.5	Advanced Data Structures	6
	Elective	7.5	Data Visualization	6
	Elective	7.5	Techniques and Methodology of Innovation and Research in Informatics	6
	Individual Specialisation	7.5	Algorithmic Methods for Mathematical Models	6
	Elective	7.5	Multiprocessors Architecture	6

## 9. MSc Games

None

## 10. MSc Data Science

University (Abroad)	Course (ITU)	ECTS (ITU)	Course (Abroad)	ECTS (Abroad)
Univeritat Politècnica de Catalunya, FIB (Spain)	Elective	7.5	Artificial Vision & Pattern Recognition – AVPR	4.5
	Elective	7.5	Intelligent Decision Support Systems – IDSS	4.5
	Elective	7.5	Advanced Machine Learning Techniques – AML	4.5
	Elective	7.5	Deep Learning for Medical Image Analysis – DLMIA	3
	Elective	7.5	New trends in robotics	3
	Elective	7.5	Bioinformatics and statistical genetics	6
Technical University Munich (Germany)	Elective	7.5	Citizen Science	7.5
	Elective	7.5	Organization Theory	7.5
	Elective	7.5	Subjects in Blockchain Technology	7.5
Politecnico di Milano (Italy)	Elective	7.5	Multiagent Systems	5
	Elective	7.5	Multi-agent learning: from theory to practice	5
	Elective	7.5	Data analytics for smart agriculture	5
	Elective	7.5	Data Harvesting and Data Analysis for agriculture	10
	Elective	7.5	Foundations of Artificial Intelligence	5
	Elective	7.5	Computer Ethics	5
	Elective	7.5	Advanced topics in deep learning: the rise of transformers	5
	Elective	7.5	Systems and Methods for Big and Unstructured Data	5
	Elective	7.5	Databases 2	5
	Elective	7.5	Machine Learning	5
	Elective	7.5	Videogame Design and Programming	5
	Elective	7.5	Software Engineering	5
	Elective	7.5	Philosophy of Science and Technology	5
	Elective	7.5	Bayesian Statistics	10
	Elective	7.5	Space Economy and Earth Observation Business	5
	Elective	7.5	Environmental Engineering Methods, Solutions and Technologies for Sustainable Agriculture	5
	Elective	7.5	Pollution Measurement	5
	Elective	7.5	Life Cycle Assessment Of Materials And Processes	5
	Elective	7.5	Geographic Information Systems	10
	Elective	7.5	Fundamentals of GIS	5
University of Technology Sydney (Australia)	Elective	7.5	Reinforcement Learning	7.5
	Elective	7.5	Game Development	7.5
	Elective	7.5	Financial Management	7.5
University of California Berkeley (USA)	Elective	7.5	Introduction to Embedded Systems	8
	Elective	7.5	Security in Computer Systems	6
	Elective	7.5	Designing, Visualizing and Understanding Deep Neural Networks	8
	Elective	7.5	Deep Reinforcement Learning, Decision Making, and Control	6
	Elective	7.5	Special Topics: Intro to Computer Vision and Computational Photography	8
	Elective	7.5	Special Topics: Machine Learning for Hardware Design	6



	Elective	7.5	Introduction to Robotics	8
	Elective	7.5	Interdisciplinary Topics in Mathematics: Market Design	8
	Elective	7.5	Biostatistical Methods: Survival Analysis and Causality	8
	Elective	7.5	Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine.	8
	Elective	7.5	Longitudinal Data Analysis.	8
	Elective	7.5	Causal Inference	8
Universidad Politécnica De Madrid (Spain)	Elective	7.5	Artificial Vision & Pattern Recognition	4.5
	Elective	7.5	Intelligent Decision Support Systems	4.5
	Elective	7.5	Advanced Machine Learning Techniques	5
	Elective	7.5	Deep Learning for Medical Image Analysis	3
	Elective	7.5	Artificial Intelligence in health care	3
	Elective	7.5	Bioinformatics and statistical genetics	6
	Elective	7.5	New trends in robotics	3