



INTERNATIONAL
HELLENIC
UNIVERSITY

Student Handbook 2022-2023

MSc in Data Science



University Center for
International Programmes of Studies

TABLE OF CONTENTS

THE INTERNATIONAL HELLENIC UNIVERSITY	2
PART I: THE MSc IN DATA SCIENCE PROGRAMME	3
PART II: REGULATIONS & POLICIES	21
PART III: UNIVERSITY FACILITIES	37

THE INTERNATIONAL HELLENIC UNIVERSITY

Introduction

The International Hellenic University (IHU) is Greece's first public university where all programmes are taught in English, according to Law 4485/2017 and 4610/2019. IHU offers postgraduate degrees from two Schools: Humanities, Social Sciences & Economics, and Science & Technology.

Our Mission

Our strategic mission is threefold:

- Provide research and education that meets the needs of the international community
- Enhance understanding of the economic, socio-political and technological issues facing the societies we serve, through teaching and research of the highest academic standard
- Create a truly international and diverse student and faculty community to foster greater understanding between cultures and nations.

Academic Management

The IHU Governing Board is the overall body governing the operation of the University in accordance with respective legislation and its own internal regulations. Together with the responsibility for overall educational and research policy and the University's development strategy, the Governing Board is also ultimately responsible for all administrative or organisational matters of the University. Upon approval by the Governing Board, all proposals for postgraduate study programmes are submitted by the same to the Ministry of Education & Religious Affairs.

The General Assembly of the School of Science and Technology is responsible for all academic and administrative matters. It is responsible for drafting and submitting proposals for postgraduate study programmes, appointing advisory committees, examination committees, the award of postgraduate degrees, selection or examination of prospective postgraduate students and for any other matter foreseen in the respective legislation. In the case of interdepartmental Postgraduate Study Programmes, the Special Interdepartmental Committee (S.I.C.) has the same powers as the General Assembly and is comprised of members of the corresponding General Assemblies.

A Programme Coordinating Committee is responsible for monitoring and coordinating the operation of each respective postgraduate programme. It reports to the General Assembly of the School.

The Programme Director, assisted and deputized by the Assistant Director, is responsible for promoting the effective implementation of the postgraduate study programme. The Programme Director reports to the General Assembly of the School on all issues regarding the effective operation of the programme.

The Student-Staff Liaison Committee is part of the School's quality control mechanism. Its purpose is to ensure good communication with the students on your programme of study and to identify areas where improvements could be made. The students will elect one member per MSc programme of study as class representative. The student reps will meet at least once per term with the Programme Director and members of the faculty. The meetings are informal in style but all issues raised are taken seriously and responded to. The course office produces minutes of each meeting which are then sent to all members of the class. Students will be informed of actions taken by the School to resolve any issues raised at SSLC meetings. The student representatives shall also meet once with the President of the Governing Board.

Please note that in addition, all students participate in the evaluation of their courses and programme by completing and submitting the respective Course Evaluation Forms and the IHU Exit Questionnaire.

PART I: The MSc in Data Science Programme

Aims and Objectives

The International Hellenic University (IHU) MSc in Data Science programme is designed to train leaders in Data Science in both the private and public sector. The programme allows executives with managerial responsibilities and global aspirations to continue their career while earning a reputable degree at IHU. Upon completion of the MSc in Data Science programme, students will gain:

- A thorough and comprehensive grasp of the technical principles and applications of Data Science, together with enduring managerial and conceptual skills
- A focus on technical knowledge across various industry sectors
- Excellent opportunities for networking
- A genuinely international, multicultural perspective with a global focus
- A highly flexible qualification suitable for a wide range of career opportunities in the ICT sector
- An appreciation of contemporary industry issues and challenges in modern society from Data Science experts.

The IHU MSc in Data Science programme promotes learning and teaching characterised by a diversity of resources and teaching styles and techniques, which recognise that the University operates in an ever-changing environment. Teaching and learning methods should assist the development of these skills, by encouraging not merely the capacity for abstract reasoning, but also the students' capacities for independent and self-motivated learning, problem-solving skills, and some of the knowledge and skills which are common to employment in many fields.

The traditional lecture supported by PowerPoint presentations and lecture notes continues to be the principal method of delivery. All classes will also be supported by comprehensive e-learning material.

Lecturing emphasises interactive activities, making use of the University facilities. The methods chosen reflect the needs of the students, the aims and target learning outcomes of the programme or the individual course, and the resources available. Learning, teaching and assessment methods are regularly reviewed. Theory, understanding and information are imparted through problem solving and class discussions. Students also learn through reading relevant literature. Coursework and assignments (individual and in small groups) develop the ability of students to solve problems. Projects allow the students to study a subject in some depth, working more independently where possible. Group projects are also used, which help develop team-working skills. Teaching and learning methods include the opportunity for students to apply their knowledge and expertise to problems beyond those generally encountered. Higher skills are fostered and encouraged. Students are expected to spend at least an equivalent amount of time working on their own, going through their notes and studying suggested textbooks and specialist readings as well as making use of the support provided through e-learning materials.

Programme Structure

Full-time

The MSc in Data Science (full-time) is a programme comprised of three semesters. It is taught mainly on weekdays over three-hour or four-hour teaching periods. The first two semesters cover the core and elective courses of the programme. The third period is taken up with work on the Master's dissertation.

Description	Hours	Credits
8 Core Courses (30 hours each)	240	48
2 Elective Courses * (30 hours each)	60	12
Master Dissertation		30
Total Taught Hours and Credits	300	90

* The elective courses chosen must total at least 12 credits in order to amass the required overall total of 90 credits for the award of this postgraduate degree.

The Core Curriculum and Electives

The MSc in Data Science core courses offer a thorough grounding in key functional areas within the Data Science sector. The core courses in the first term provide the required technical and managerial education for all graduates. The core and elective courses establish the required technical, management and legal skills that will lead to the desired specialisation. The core courses enable students to acquire practical concepts and skills directly relevant to their careers. With regards to the elective courses, students can choose elective courses from those offered by the programme totalling at least 12 credits.

Core Courses

Term	Core Courses	Hours	Credits
1	Programming for Data Science	30	6
1	Data Science for Business: Theory and Practice	30	6
1	Statistical Methods for Data Science	30	6
1	Machine Learning Principles and Concepts	30	6
1	Advanced Database Systems	30	6
2	Timeseries Forecasting	30	6
2	Advanced Machine Learning	30	6
2	Data Mining	30	6

Elective Courses*

Term	Elective Courses*	Hours	Credits
2	Natural Language Processing and Text Mining	30	6
2	Information Retrieval	30	6
2	Big Data and Cloud Computing	30	6
2	Knowledge Management in the Web	30	6
2	Multimedia Data Analysis	30	6
2	Exploratory Data Analysis and Visualization	30	6
2	Social Media and Online Community Management	30	6
2	Consulting Project	30	6

* Some of the elective courses may not be offered in a particular year, depending entirely on sufficient student demand. Students (full-timers) will be asked to submit their elective preferences from a pool of available courses during the 1st semester of their studies. The courses assignment will be based on students' preferences and the minimum number of students required for a course to be offered. For more information about the courses, students are strongly encouraged to contact their mentor and/or the academic associates/academic faculty members.

Supporting/Laboratory Classes

Term	Core/Elective Courses	Hours	Credits
1	Data Science for Business: Theory and Practice (C)	9	-
1	Statistical Methods for Data Science (C)	9	-
1	Advanced Database Systems (C)	9	-
1	Machine Learning Principles and Concepts	9	-
2	Data Mining (C)	9	-
2	Big Data and Cloud Computing	9	-
2	Information Retrieval (E)	9	-

DISSERTATION

Semester	Credits
3	30

Programme Timetable for full-time students

Term	Calendar	MSc Activities
1	17/10/2022 – 27/01/2023	5 Core Courses
1	30/01/2023 – 03/02/2023	Reading
1	06/02/2022 – 17/02/2023	Assessment
2	20/02/2023 – 02/06/2023	3 Core + 2 Elective Courses
2	05/06/2023 – 09/06/2023	Reading

2	12/06/2023 – 30/06/2023	Assessment
3	30/06/2023 – 07/01/2024	Dissertation
3	01/02/2024	Dissertation Presentation

* Timetable is indicative and subject to changes.

** The Christmas Break will be from 24/12/2022 to 06/01/2023.

Resit exams for the first term are scheduled to take place from 03/07/2023-14/07/2023.

Resit exams for the second term are scheduled to take place from 04/09/2023-15/09/2023.

Part-time

The programme may also be followed in a part-time mode over 26 months. The **first year** includes two teaching periods during which five core courses are offered. There is also a third period in which students may already begin preparation for the master dissertation. In the **second year**, students are taught over two teaching periods the remaining three core courses and two elective courses. There is a third term, at the end of which the master dissertation should be completed.

The Core Curriculum and Electives

YEAR 1

Core Courses

Term	Core Courses	Hours	Credits
1	Programming for Data Science	30	6
1	Statistical Methods for Data Science	30	6
1	Advanced Database Systems	30	6
2	Time Series Forecasting	30	6
2	Advanced Machine Learning	30	6
2	Data Mining	30	6

YEAR 2

Core Courses

Term	Core Courses	Hours	Credits
4	Data Science for Business: Theory and Practice	30	6
4	Machine Learning Principles and Concepts	30	6

Elective Courses*

Students select courses totalling at least 12 credits from the electives list below:

Term	Elective Courses*	Hours	Credits
5	Natural Language Processing and Text Mining	30	6
5	Information Retrieval	30	6
5	Big Data and Cloud Computing	30	6
5	Knowledge Management in the Web	30	6
5	Multimedia Data Analysis	30	6

5	Exploratory Data Analysis and Visualization	30	6
5	Social Media and Online Community Management	30	6
5	Consulting Project	30	6

* Some of the elective courses may not be offered in a particular year, depending entirely on student demand. Students (part-timers) will be asked to submit their elective preferences from a pool of available courses during the 4th semester of their studies. The courses assignment will be based on students' preferences and the minimum number of students required for a course to be offered. For more information about the courses, students are strongly encouraged to contact their mentor and/or the academic associates/academic faculty members.

Supporting/Laboratory Classes

Term	Core/Elective Courses	Hours	Credits
1	Statistical Methods for Data Science (C)	9	-
1	Advanced Database Systems (C)	9	-
2	Data Mining (C)	9	-
4	Data Science for Business: Theory and Practice (C)	9	-
4	Machine learning Principles and Concepts	9	-
5	Information Retrieval (E)	9	-
5	Big Data and Cloud Computing	9	-

DISSERTATION

Semester	Credits
6	30

Programme Timetable for part-time students

YEAR 1 *

Term	Calendar	MSc Activities
1	17/10/2022 – 27/01/2023	2 Core Courses
1	30/01/2023 – 03/02/2023	Reading
1	06/02/2023 – 17/02/2023	Assessment
2	02/02/2023 – 02/06/2023	3 Core Courses
2	05/06/2023 – 09/06/2023	Reading
2	12/06/2023 – 30/06/2023	Assessment

YEAR 2 *

Term	Calendar	MSc Activities
4	October 2023 – January 2024	3 Core Courses
4	January 2024	Reading
4	Beginning of February 2024	Assessment
5	February 2024 – June 2024	2 Elective Courses

5	June 2024	Reading
5	June 2024	Assessment
6	June 2024 – January 2025	Dissertation
6	February 2025	Dissertation Presentation

* Timetable is indicative and subject to changes.

** The Christmas Break will be from 24/12/2022 to 06/01/2023.

Resit exams for the first term are scheduled to take place from 03/07/2023-14/07/2023.

Resit exams for the second term are scheduled to take place from 04/09/2023-15/09/2023.

Core Course Details

Please note with respect to the reading lists given below, students may be referred to additional readings during lectures. As part of their studies and in order to broaden their knowledge, students should also consult relevant academic journals and websites. For more information or updates students are kindly requested to contact the instructor(s) and/or their mentor.

Programming for Data Science

Hours and Credit Allocation	30 Hours, 6 Credits
Course Assessment	Exam & Coursework

Aims

The course will examine fundamental programming concepts and principles in the context of Data Science as well as provide students with the proper way of thinking about problems like a Data Scientist. The course covers data selection, iteration and abstraction, functional decomposition and algorithm design as they are applied in typical programming languages, tools and APIs used in Data Science. Students will also learn how to produce high quality computer code by solving actual Data Science problems.

Learning outcomes

On completing the course, students will be able to:

- Understand and apply computational thinking in terms of programming methods and data structures.
- Capture and represent data and learn the basic data analysis, processing and visualization tasks.
- Become proficient in the basic data analysis algorithms and their implementation.
- Use software tools and programming languages that are particularly suitable for data science and analytics.

Content

- Data science methodologies.
- Types of data, hierarchy and representation.
- Basic data processing and analysis tasks and algorithms.
- Data analysis software tools and programming languages.
- Parallel and distributed programming acceleration techniques.

Reading

- Iguar L., Segui S., Virtia J. et al (2017), Introduction to data science: a Python approach to concepts, techniques and applications, Springer.
- McKinney W. (2012), Python for data analysis: data wrangling with Pandas, NumPy and iPython, O'Reilly.

- Wickham, H., Grolemund G. (2017), R for data science: import, tidy, transform, visualize and model data, O'Reilly.

Data Science for Business: Theory and Practice

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Exam & Coursework

Aims

The course examines the impact of data science in modern private and public organisations and presents challenges, opportunities and trends in the field. The students will gain the necessary conceptual understanding of the uprising “data economy” with its underlying technological and business characteristics. Business cases will be presented and discussed, while specific business problems will be matched with new data technologies. Data/information management and interoperability topics will be also presented and discussed.

Learning Outcomes

On completing the course, students will be able to:

- Understand the scope of data science and the role/function of data scientists.
- Identify different types of data that are relevant in business environments.
- Know which data science solutions can address specific types of business problems.
- Be able to design a data governance policy.
- Understand challenges and opportunity in the data-driven economy and public policy.

Content

- Defining Data Science.
- Data-analytic thinking.
- Big/smart/open/linked/meta/reference/master data.
- Data interoperability.
- The data value chain.
- Business problems and data science solutions.
- Data governance.
- Data for policy.
- Data-driven economy.

Reading

- Data Science for Business, Foster Provost, Tom Fawcett, O'Reilly Media, 2013.

Statistical Methods for Data Science

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Coursework

Aims

The course examines the mathematical and statistical foundations of Data Science and presents the most commonly used statistical methods in the field. The students will gain the necessary conceptual understanding of statistical methods used to analyse and interpret massive data sets as well as extract meaningful conclusions

out of them. The course will provide the students with a solid theoretical background and a collection of techniques which can be applied to a wide range of real-world problems.

Learning Outcomes

On completing the course, students will be able to:

- Understand the basic concepts of probability theory and statistics as they are applied in data science.
- Apply mathematical tools, models and methods to data analysis tasks, such as data fitting, regression, sampling, hypothesis testing etc.
- Learn the fundamentals of statistical inference and its implementations.
- Use modern software suites for data analysis, processing and visualization and develop new software tools.

Content

- Descriptive Statistics.
- Probability Distributions.
- Sampling and Sampling Distributions.
- Interval Estimation.
- Hypothesis Testing.
- Statistical Inference.
- ANOVA.
- Linear Regression.
- Nonparametric Methods

Reading

- Anderson D.R., Sweeney D.J., Williams T.A., Camm J.D. (2017). Statistics for Business & Economics, Cengage, 13th Edition.
- Heumann C., Schomaker M. Shalabh (2016). Introduction to Statistics and Data Analysis: With Exercises, Solutions and Applications in R, Springer.
- James G., Witten D., Hastie T. (2013). An introduction to statistical learning with applications in R, Springer.
- Stinerock R (2018). Statistics with R: A Beginner's Guide, Sage Publishing.

Machine Learning Principles and Concepts

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Exam & Coursework

Aims

Machine learning is an exciting field which entails using computers to run predictive models that learn from existing data and produce conclusions or recommendations. The course covers the fundamental theory, concepts and numerical techniques of machine learning, drawing upon ideas and tools from probability, Artificial Intelligence and algorithm design. The students will also familiarize themselves with common machine learning software libraries and APIs.

Learning Outcomes

On completing the course, students will be able to:

- Develop an appreciation for what is involved in learning from data.
- Explain a wide variety of learning algorithms.
- Understand how to apply a variety of learning algorithms to data.
- Understand how to perform evaluation of learning algorithms and model selection.

Content

- Optimization Techniques.
- Linear Regression.
- Linear 2- and multi-class classification.
- Feature Engineering.
- Kernel Methods.
- Fully Connected Neural Networks.
- Tree-Based Learners.

Reading

- Watt J., Borhani, R., Katsaggelos A.K., Machine Learning Refined: Foundations, Algorithms, and Applications, Cambridge University Press, 2020.
- Zaki, M.J., Meira W., Jr, Data Mining and Machine Learning: Fundamental Concepts and Algorithms, Cambridge University Press, 2020..
- Lee W.-M., Python® Machine Learning, Wiley, 2019..

Advanced Database Systems

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Exam & Coursework

Aims

The course aims to familiarise students with contemporary database systems, as well as emerging database technologies. It discusses basic aspects of DB techniques and exposes a set of tools and technologies that can be used along with “core” DB systems. Students are expected to engage in practical database system design through coursework. The emphasis is on general concepts and theoretical foundations.

Learning Outcomes

On completing the course, students will be able to:

- Develop the logical model of a relational database.
- Use essential SQL tools to program DB systems.
- Understand advanced concepts of DM management.
- Organize, store and process data efficiently, using contemporary technologies such as Data Warehouses.
- Understand and apply various emerging technologies, including Business Intelligence and Data Mining, OLAP, Information Retrieval, and Search engines.
- Understand and utilise knowledge extracted from data.

Content

- ER model, relational model
- SQL
- Indexing
- Hashing
- Data warehousing and OLAP
- Data Mining
- Information Retrieval
- Web Search

Reading

- Garcia-Molina H., Ullman J., and Widom J., (2009), Database Systems: The Complete Book, 2nd edition, Pearson.
- Silberschatz A., Korth H., and Sudarshan S., (2019), Database System Concepts, 7th Ed., McGraw-Hill.
- Ramakrishnan R, Gehrke J. (2002), Database Management Systems, 3rd ed., McGraw-Hill.
- Elmasri R., Navathe S. B., (2017), Fundamentals of Database Systems, 7th Ed., Pearson.

Timeseries Forecasting

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Course Assessment:	Exam & Coursework

Aims

This course aims in providing solid knowledge on a domain that is beneficial to those studying AI and machine learning. Timeseries analysis and forecasting is a domain where computer science, and coding meet mathematics, physics and other natural sciences, engineering, economics, finance and social sciences. Comprehensive knowledge on the theoretical foundations of the area (fundamental principles, elements etc.) is offered. The course includes timeseries analysis by utilizing both linear approaches and nonlinear dynamics. Both modules move towards the final goal which is timeseries forecasting for practical applications.

Learning Outcomes

On completing the course students will be able to:

- Understand the essential mathematics and algorithms behind contemporary timeseries analysis.
- Understand the methods utilized for forecasting the temporal evolution of dynamical systems.
- Implement timeseries analysis both by utilizing linear and nonlinear methods.
- Learn how to analyze, model and forecast time series data by using statistical software packages.
- Successfully implement timeseries modelling and forecasting.
- Understand and estimate the limits of proper and reliable forecasting.
- Have the background needed and experience, to understand the upcoming methods and approaches in the area.

Content

- Introduction to time series analysis.
- Basic characteristics of stationary processes.
- Time series models (ARMA, ARIMA, SARIMA).
- Time series forecasting.
- Short introduction to Chaos Theory.
- Basic characteristics of nonlinear timeseries and their analysis.
- Reconstruction of phase space.
- Dimensions, entropies and other invariant metrics.
- Timeseries forecasting methods and models.

Reading

- "Introduction to time series and forecasting" by Brockwell P.J. and Davis R.A., 3rd edition, Springer, 2016.
- "Introduction to Time Series Analysis and Forecasting" by D. C. Montgomery, C. L. Jennings, M. Kulahci, 2nd edition, Wiley, 2015.
- "Nonlinear Timeseries Analysis" by Holger Kantz and Thomas Schreiber (2 nd edition).
- "Elements of Nonlinear Timeseries Analysis and Forecasting" by Jan G. De Gooijer

Data Mining

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Exam & Coursework

Aims

The course covers KDD as a set of computational tools and technologies, which provide valuable assistance for business analysis and strategic business decision making. Students will learn how to apply various data mining technologies for solving practical problems and how to use simple decision-support systems.

Learning Outcomes

On completing the course, students will be able to:

- Organize and process efficiently knowledge (either given a priori or extracted)
- Understand and apply various data mining approaches, including Classification, Clustering and Association Rules.
- Understand, evaluate and utilise knowledge extracted from large volumes of data
- Develop skills on a broad range of business intelligence problems.

Content

- Introduction to Knowledge Discovery in Databases (KDD) and Data Mining (DM).
- Classification.
- Clustering.
- Association Rules.
- DM Systems, Data pre-processing and Evaluation.
- Open research topics

Reading

- J. Han and M. Kamber, *Data Mining: Concepts and Techniques*, 3rd ed., The Morgan Kaufmann Series in Data Management Systems, Morgan Kaufmann Publishers, 2017.
- Witten, E. Frank, and M. Hall, *“Data Mining: Practical Machine Learning Tools and Techniques”*, 4th Ed., Morgan Kaufmann, 2017.
- G. Shmueli, P.C. Bruce, I. Yahav, N.R. Patel, K.C. Lichtendahl Jr., *Data Mining for Business Analytics: Concepts, Techniques, and Applications in R*, 1st Ed., Wiley 2018.
- P.N. Tan, M. Steinbach, and V. Kumar, *“Introduction to Data Mining”* 2nd Ed., Pearson HE, 2019.
- R. Sharda, D. Delen, E. Turban, *Decision Support and Business Intelligence Systems*, 11th Ed. Pearson HE, 2020.
- M.H. Dunham, *“Data Mining: Introductory and Advanced Topics”*, Prentice Hall, 2008.

Advanced Machine Learning

Credit Allocation:	30 Hours, 6 Credits
Course Assessment:	Exam & Coursework

Aims

This course covers advanced topics in machine learning and students are expected to have a solid background in machine learning. The topics to be studied include (among others) Support Vector Machine, graphical models, Kernel methods, unsupervised and semi-supervised learning. Students will gain a deep understanding of both

the theoretical and computational aspects of state-of-the-art machine learning and improve their modeling and computational skills by implementing algorithms for some of the above techniques to solve actual problems.

Learning Outcomes

On completing the course, students will be able to:

- Gain an understanding of how to choose a model to describe a particular type of data.
- Apply the chosen method properly.
- Know how to evaluate a learned model in practice.
- Be able to design and implement various machine learning algorithms in a range of real-world applications.

Content

- Statistical Learning Theory.
- Mixture Models and the EM Algorithm.
- Generative and Discriminative Learning.
- Graphical Models.
- Hidden Markov Models.
- Generalization and Model Selection.
- Support Vector Machines, Kernels.
- Transduction, Feature Selection.
- Deep learning.

Reading

- Duda, Hart and Stork, Pattern Classification.
- Chris Bishop, Neural Networks for Pattern Recognition.
- Chris Bishop, Pattern Recognition and Machine Learning.
- Trevor Hastie, Robert Tibshirani, Jerome Friedman. The Elements of Statistical Learning: Data Mining, Inference, and Prediction, Springer, 2008.
- Ethem Aplaydin. Introduction to Machine Learning, 3rd Edition, MIT Press, 2014.
- Michael Kearns and Umesh Vazirani, An Introduction to Computational Learning Theory, MIT Press, 1994.
- Mehryar Mohri, Afshin Rostamizadeh and Amit Talwar, Foundations of Machine Learning, MIT Press, 2012.
- Shai Shalev-Shwartz and Shai Ben-David. Understanding Machine Learning: From Theory to Algorithms. Cambridge University Press, 2014.

Elective Course Details

Please note with respect to the reading lists given below, students may be referred to additional readings during lectures. As part of their studies and in order to broaden their knowledge, students should also consult relevant academic journals and websites. For more information or updates students are kindly requested to contact the instructor(s) and/or their mentor.

Natural Language Processing and Text Mining

Credit Allocation:	30 Hours, 6 Credits
Course Assessment:	Exam & Coursework

Aims

This course covers the main principles and techniques of Natural Language Processing (NLP) and its associated computational tools, especially with regards to written text. The course provides the required background material on computational linguistics and statistical language analysis and describes the machine-learning-based

models that are widely used for analysis. Typical NLP tasks, such as text parsing, classification and translation will also be described and the students will gain familiarity with widely used software tools for these purposes.

Learning Outcomes

On completing the course, students will be able to:

- Understand how natural language processing (NLP) draws upon other areas of computer science and data analysis.
- Design and build computer systems and software for various tasks of NLP.
- Understand and implement the most important algorithms and techniques in NLP and text mining.
- Formulate models and construct computational solutions to text and speech-based processing problems.

Content

- Introduction to natural language processing and its challenges.
- Syntax and parsing (syntactic, semantic).
- Language and speech modeling.
- Text classification and clustering.
- Sentiment analysis.
- Machine translation.

Reading

- Manning C., Schütze H. (1999), Foundations of statistical natural language processing, MIT Press.
- Jurafsky D., Martin J. (2008), Speech and language processing, Prentice Hall, 2nd edition.
- Bird S., Klein E., Loper E. (2009), Natural language processing with Python: analyzing text with the Natural Language Toolkit, O'Reilly.

Information Retrieval

Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Exam & Coursework

Aims

The course covers the basic principles and techniques of information retrieval, which is the process by which a computer system can respond to a query about a given topic. A successful and meaningful response requires efficient data organization and classification, as well as efficient indexing and clustering algorithms. The students will study all aspects of data organization and processing that allow for efficient information retrieval as well as the underlying computational models and tools.

Learning Outcomes

On completing the course, students will be able to:

- Understand key concepts of information retrieval techniques and be able to apply these concepts into practice.
- Apply information retrieval principles to locate relevant information in large collections of data.
- Understand and deploy efficient techniques for the indexing of document objects that are to be retrieved.
- Implement features of retrieval systems for web-based and other search tasks.
- Analyse the performance of retrieval systems.

Content

- Boolean Model.
- Term Vocabulary.
- Indexing.

- Vector Space Model.
- Scoring.
- IR Evaluation.
- Relevance Feedback.
- Web Search.
- Web Crawling.

Link Analysis. *Reading*

- C.D. Manning, P. Raghavan and H. Schütze (2008), Introduction to Information Retrieval, Cambridge University Press.
- R. Baeza-Yates, B. Ribeiro-Neto (2011). Modern Information Retrieval: The Concepts and Technology behind Search, 2nd Edition, ACM Press Books, Addison Wesley.
- S. Büttcher, C.L. A. Clarke and G.V. Cormack (20016), Information Retrieval, Implementing and Evaluating Search Engines, MIT Press.

Big Data and Cloud Computing

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Supporting/Laboratory Classes:	9 Hours, 0 Credits
Course Assessment:	Exam & Coursework

Aims

The big data explosion has led to new computing paradigms, the most prevalent among them being cloud computing. Cloud computing is about vast computing resources on demand, that allow for centralized data storage and online access. Big data is a broad term that includes several concepts and tasks, such as data capture, storage, sharing, management and analysis. This course focuses mostly on the big data storage and management part, rather than the analysis as well as cloud service models, architectures and tools. Students will familiarize themselves with modern big data and cloud technologies, understand the privacy and security concerns and learn about popular big data and cloud computing platforms.

Learning Outcomes

On completing the course students will be able to:

- Develop the knowledge, understanding and skills to work with big data.
- Deploy a structured lifecycle approach to data analytics problems.
- Apply appropriate analytic techniques and tools to analyzing big data.
- Understand Cloud Computing Concepts and Mechanisms.
- Learn the concepts, principles, techniques and methodologies you need to manage cloud services and resources.

Content

- Big Data Storage and Processing Concepts.
- Hadoop,HDFS, Yarn, Spark.
- MapReduce Algorithms.
- NoSQL Databases.
- Cloud Computing Model and Services, Virtualization, Scaling, Capacity and Load Balancing. .

Reading

- Lin, J., and Dyer, Ch., Data-Intensive Text Processing with MapReduce, Morgan & Claypool Publishers, 2010..
- Erl, Th., Khattak, W., and Buhler, P. , Big Data Fundamentals: Concepts, Drivers & Techniques., Prentice Hall, 2016

- Weise, L., Advanced Data Management – For SQL, NoSQL, Cloud and Distributed Databases, De Gruyter Oldenbourg, 2015.
- White, T., Hadoop: The Definitive Guide, 4th Edition, O’Reilly, 2015.
- Chambers, B., and Zaharia, M., Spark: The Definitive Guide: Big Data Processing Made Simple, O’Reilly, 2018.
- .

Knowledge Management in the Web

Credit Allocation:	30 Hours, 6 Credits
Course Assessment:	Exam & Coursework

Aims

This module briefly overviews basic concepts of Knowledge and Knowledge Management, such as the architecture and Life Cycle of Knowledge Management Systems, Knowledge capture, Knowledge representation and reasoning, Ontologies, Deductive and Production Rules, and Case-based reasoning. Furthermore, it extensively presents the basic modern Knowledge Management technologies, such as XML, DTD, XML Schema, XPath, XSLT, RDF, RDF Schema, Linked Open Data, SPARQL, OWL, SWRL and demonstrates related systems and tools.

Learning Outcomes

On completing the course participants will:

- Acquire essential skills on Knowledge Management Systems.
- Overview Knowledge Management technologies and tools, including XML, DTD, XML Schema, XPath, XSLT, RDF, RDF Schema, SPARQL, OWL, SWRL.
- Experiment with creating their Knowledge Management systems through a carefully selected series of assignments.

Content

- Basic concepts of Knowledge and Knowledge Management (Knowledge capture; Knowledge representation and reasoning: Basic concepts), Ontologies, Deductive and Production Rules, and Case-based reasoning.
- Detailed presentation of basic modern Knowledge Management technologies (XML, DTD, XML Schema, XPath, XSLT, RDF, RDF Schema, Linked Open Data, SPARQL, OWL, SWRL).

Multimedia Data Analysis

Teaching Hours and Credit Allocation:	30 Hours, 6 Credits
Course Assessment:	Exam & Coursework

Aims

This course examines the analysis of multimedia (e.g. image, video, audio) data in large scale datasets for the purposes of identification and extraction of useful information. Students will be exposed to a large array of techniques, ranging from machine learning and pattern recognition to signal processing and computer vision, for multimedia processing and will gain a deep understanding of the unique challenges that arise in terms of scalability, accuracy and semantics.

Learning Outcomes

On completing the course, students will be able to:

- Use tools for multimedia information analysis.

- Extract meaningful features from different types of multimedia data.
- Be able to implement semantic multimedia content classification and annotation.
- Apply speech and speaker recognition techniques.
- Know how to perform video indexing and summarization.

Content

- Intelligent tools and techniques for multimedia information analysis.
- Semantic content analysis and annotation.
- Feature extraction.
- Multimedia information processing.
- Video summarization and indexing.
- Multimedia databases.
- Multimedia data applications and future trends.
- Cross-modal access to information.

Reading

- Data Management for Multimedia Retrieval, K. Selçuk Candan, Maria Luisa Sapino (2010).
- Semantic Multimedia Analysis and Processing, Evaggelos Spyrou, Dimitris Iakovidis, Phivos Mylonas, 2014, CRC Press.
- Multimedia Data Mining: A Systematic Introduction to Concepts and Theory, Zhongfei Zhang, Ruofei Zhang, 2008, Chapman and Hall/CRC.

Exploratory Data Analysis and Visualization

Teaching Hours and Credit Allocation: 30 Hours, 6 Credits

Course Assessment: Exam & Coursework

Aims

The course covers the essential exploratory techniques for analyzing and summarizing data, with the aid of visualization techniques. Students will learn how they can determine the underlying structure and model variables in a problem by examining the data itself, which can provide valuable insight about the problem itself and also suggest the type of formal statistical analysis to be subsequently applied. Visualization and plotting of high-dimensional data will also be studied.

Learning Outcomes

On completing the course students will be able to:

- Understand the essential exploratory techniques for summarizing data.
- Understand and use the plotting systems in Python and/or R.
- Understand basic principles of constructing data graphics.
- Understand and use common multivariate statistical techniques to visualize high-dimensional data.

Content

- Fundamentals of data visualization.
- Constructing data graphics.
- Analytic graphics.
- Visualizing high dimensional data.
- Statistical methods for exploratory analysis.
- Essential exploratory techniques for summarizing data.
- Dimension reduction.

- Perception of discrete and continuous variables.
- Dynamic graphics.
- Model visualization.

Reading

- Unwin, A. (2015), Graphical data analysis with R, CRC Press.
- W.L. Martinez, A.R. Martinez, J. Solka (2010), Exploratory Data Analysis with MATLAB, 2nd Ed., CRC Press.
- D.C. Hoaglin, F. Mosteller, J.W. Tukey (2000), Understanding Robust and Exploratory Data Analysis, 1st Ed., Wiley.

J. W. Tukey (1977), Exploratory Data Analysis, Pearson.

Consulting Project

Credit Allocation:	6 Credits
Course Assessment:	Final deliverable

Aims

The Consulting Project will require students to apply knowledge gained in classroom into practice. Students will tackle real-life problems and challenges facing companies or organisations in order to provide actual business solutions. Following a procedure of specifications/requirements, design and implementation, students will prepare and present their concrete and practical solutions in a final deliverable report.

Learning Outcomes

On completing the course, students will be able to:

- Understand real-world problem faced by companies/firms and propose functional solutions.
- Develop critical thinking and ability to integrate data and information towards the optimal solution.
- Understand the structure, operational mode and challenges of real-world companies.

Content

- Understanding and recording a company's needs and challenges.
- Project requirements.
- Data analysis, implementation and company feedback.
- Producing a deliverable.

The Master's Dissertation

Credit Allocation:	30 Credits
Course Assessment:	Written report

As a part of the MSc programme, students work on a project on a subject relating to their academic interests. The Master's dissertation provides a good opportunity to apply theory and concepts learned in different courses to a real-world problem or challenge.

The Master's dissertation tests their ability to apply a certain methodology and approach, to analyse a given problem and to demonstrate reasonably original research work. Students are supervised throughout their projects by a member of the academic faculty. The supervision is delivered through face-to-face meetings at the University, via teleconferencing and through the e-learning platform of the University. Students are encouraged to have regular meetings with their supervisor. Supervisors assist students in their research work by acting as consultants and counselors in matters of research process and practice: students are expected to become the experts in the topic they selected for research and take responsibility for their work.

A student may undertake a dissertation once he/she has been examined in all the courses of the first and second semester of the Programme.

The student applies to the Coordinating Committee providing a title and the name of the supervisor, a member of the academic staff, following the academic's consent. A preliminary outline of the research is also provided.

The postgraduate student is obliged, depending on the progress of the dissertation, to inform the supervisor of any issue related to it.

The study and writing of the thesis must be completed within the time provided for it, i.e. before the beginning of the examination period of the semester. Otherwise, a new evaluation date is set, at least three (3) months later.

Submission of the thesis should take place at least one (1) month before the postgraduate thesis examination period, in order for the members of the committee to have sufficient time to study and submit observations. The thesis is judged by public presentation and examination, at the request of the student and the consent of the supervisor, or is returned, noting the reasons for referral and the possibility of resubmission within a specified period of at least three month

After the presentation, the thesis is evaluated by the committee in terms of research, scientific methodology for obtaining the results and conclusions, presentation of a literature review and usefulness of the findings, taking into account the written and oral presentation and the answers of the student to the questions during the examination. Then, the supervisor submits to the Secretariat the examination report, which includes the grade of each examiner, with a rating scale from zero (0) to ten (10), and any remarks.

The grade of the thesis is equal to the average of the three grades. To qualify for a Master's degree, a student must achieve a minimum grade of 5.00 in the Dissertation.

For students who fail the dissertation, the committee sets a new evaluation date, at least three (3) months after the first submission. Students are allowed to resubmit their dissertation only once.

PART II: REGULATIONS & POLICIES

I. Admissions Policy - Entry requirements

The Department of Science and Technology in March, every year, publishes an invitation for postgraduate students for the winter semester of the following academic year. The invitation is published at the website of the Department and is communicated in every possible way. The above invitation shall stipulate:

- i. The entrance qualifications required of candidates for the PPS
- ii. The documentation required for registration on the PPS
- iii. The final date for submission of documentation
- iv. The address and the Directions for the submission of documentation.

Candidate selection is carried out by decision of the GA of the School, in accordance with the evaluation and selection criteria. The final list of successful applicants and any runners up shall be approved by the GA

Applicants, must submit to the Secretariat of the Department, via the submission system, according to the relevant call of interest, the following documents:

- Application
- Copy of degrees (University degree, other postgraduate degree, etc.)
- Copy of the transcript of grades all years of undergraduate as well as any postgraduate studies.
- d) English language knowledge documented with a relevant certificate, corresponding at least to the State Certificate of Language Learning Level B2 or other certificate proving good knowledge of English. Holders of an undergraduate or postgraduate degree at a Foreign University in English are exempt from this obligation.
- At least two (2) recommendation letters
- A detailed curriculum vitae.
- Any other information that, in the opinion of the candidates, would contribute to their more complete evaluation, such as certificates of participation in summer schools, conferences, student exchange programs, IKY scholarships. or other recognized institutions, prizes in competitions, presentations of papers in scientific conferences, proof of participation in research projects, scientific publications, certificates of professional experience, etc.
- A copy of ID or passport.
- Two (2) recent passport size photographs.

Students who need a small number of courses to receive their degree can also apply, and if accepted, they have the right to enroll in the programme only if they present a certificate of completion of studies by the final date of registration.

If successful, the candidate is notified by the University by registered post that he/she must confirm or otherwise his/her acceptance of the offer of the place on the PPS. In order to secure his/her place on the programme, the successful candidate must make the respective deposit payment within the prescribed deadline in order to register on the programme. The candidate, in order to secure his/her position, must within the above deadlines submit to the Secretariat of the Department all legal documents, to pay the advance of the students' financial participation if provided, in any case before the start of the program, and enroll in the program. In addition, registration is validated by submitting a copy of the undergraduate degree (if not already submitted) or by a certificate from the secretariat of the educational institution of the candidate, in order to fulfill all required obligations. The same applies to the proof of English language

proficiency, which the candidate must submit until the date of registration in the PPS.

If offered a place on the course, candidates must normally state whether they accept or reject it within 30 days. Candidate registration takes place on the Induction Day at the start of the 1st semester.

2. Tuition Fees

- 2.1 IHU full-time and part-time postgraduate students pay for their participation on the MSc programme, total fees amounting to 3.700€.
- 2.2 Deposits: Upon acceptance on a postgraduate programme of study at the IHU, you will be asked to pay a non-refundable deposit of 500€ to secure your place. This amount will count towards the first instalment of your tuition fees. The deposit can be paid by bank transfer or bank draft.
- 2.3 Tuition fees are paid in two instalments for full-time students and in four instalments for part-time students. The first day of each academic semester is set as the final date for payment. Proof of payment of the first fee instalment must be submitted by or upon registration of the student on Induction Day.
- 2.4 No extension is provided for tuition fee payment and no different arrangement is permitted for payment of the first fee instalment. Exceptionally, a special arrangement for subsequent fee payments may be foreseen by decision of the General Assembly of the School following the respective request by the student provided there are exceptional reasons.
- 2.5 Examination and coursework marks for students in arrears regarding the payment of fees will not be disclosed by the School. These students will not be permitted to proceed to the next semester of studies if payment has not been made according to the payment schedule, unless there are exceptional circumstances that have been communicated to and approved by the General Assembly of the School.
- 2.6 In the final instance, students who have not paid the full tuition fees by the end of the programme will not be allowed to receive their degree until they have fulfilled this obligation within a deadline to be set by the General Assembly of the School.

3. Student identity

- 3.1 Registration on an IHU postgraduate programme confers the identity of student on the candidate. This identity expires upon receiving one's degree or upon expulsion from the university.
- 3.2 Students may use IHU facilities and services in the pursuit of their educational work, according to the stipulations of respective Governing Board decisions.

4. Mentor scheme

Academic mentoring has been established by the University in order to provide students with advice on a range of academic matters, such as assessing the current level of knowledge provided and identifying any impediments to the learning process that may be present, with the overall objective of enhancing open, continuous and direct communication between students and the faculty.

5. Programme Duration

- 5.1. The programme will commence on October 2022 and end on January 2024.
- 5.2. The duration of studies in order to acquire a postgraduate degree is 3 semesters (comprising taught courses during the 1st and 2nd semesters, while the 3rd semester is dedicated to the Dissertation).
- 5.3. Examinations and assessed work will take place throughout the course.

- 5.4. The maximum period for completion of the study programme is five (4) semesters for full-time students and eight (5) semesters for part-time students. Extension of the above deadlines is generally not permitted. In certain exceptional cases, a short extension may be given, following approval by the General Assembly of the School.

6. Assessment

- 6.1 The programme is taught and assessed in English. Student assessment on each course is supervised by the course leader.
- 6.2 Performance is assessed on a 1-10 scale.
- 6.3 To complete the programme successfully, students must pass all courses, achieving an average grade on each course and its assessment components (coursework and examination) of at least 5.00.
- 6.4 In special circumstances, such as when a student is unable to participate in the examinations or to submit a paper due to professional or health reasons, a special examination date may be set for the student or a new deadline for the submission of the respective coursework, following a decision by a competent committee appointed by the General Assembly of the School.
- 6.5 Teachers are obliged to issue the results of the exams and the final grades, by submitting the final grades to the Secretariat of the Department within twenty (20) days from the day of the exam.

7. Assessment Regulations

The rules governing the calculation of course and overall degree marks are as follows:

- 7.1 To qualify for the MSc Programme degree, a student must acquire a total of 90 credits.
- 7.2 All courses must be passed individually.
- 7.3 Credits and marks are awarded for all courses successfully completed and passed.
- 7.4 It is compulsory to complete all coursework and exam components and no course mark can be awarded until these are completed.
- 7.5 Final evaluation in the courses is done with written or oral final exams, intermediate written or oral exams ("progress"), written assignments, exercises or a combination of the above at the discretion of the teacher, who determines the manner of calculating the final grade which is announced during the first week of courses. Students with disabilities, dyslexia, etc. receive special treatment, in order to ensure compliance with the principle of equal treatment.
- 7.6 Evaluation of students' performance is done by the teachers for each course with the scale from zero (0) to ten (10) as follows: "Excellent" from eight and fifty (8.50) to ten (10), "Very Good" from six and fifty (6.50) to eight and forty nine (8.49), "Pass" from five (5) to six and forty nine (6.49).
- 7.7 In order for the student to succeed in both the course exams and the written assignment, he/she must have obtained a grade of at least five (5). The student who fails in one of the courses is re-examined during the respective re-examination period. If a student also fails the re-examination, he/she has the right to repeat it or, in the case of an elective course, to replace it with another.
- 7.8 If the postgraduate student fails in the examination of a course, in accordance to the Regulations of Postgraduate Studies, he/she can request to be examined by a threemember academic committee of the School with the same or related subject matter with the examined course. The three-member committee is appointed by the Provisional Department Assembly, based on the current legislation. The teacher of the course is excluded from the committee.

- 7.9 In exceptional cases, such as inability of the student to take part in the examinations or to deliver work for serious reasons due to force majeure, at the discretion of the Department, a special examination date or a new deadline may be set for the delivery of the student's work without a penalty, following decision of the Director of the Programme
- 7.10 To calculate the overall degree mark, course marks are combined using weightings in line with the relative credit values of courses, set out in the table below.

Assessment matrix of courses, hours, credits and weightings

Course title	Taught Hours	Credits	Assessment weightings* used to calculate course mark		Course weights
			C/W	Exam	
Core Courses					
Programming for Data Science	30	6	30%	70%	6.66%
Data Science for Business: Theory and Practice	30	6	30%	70%	6.66%
Statistical Methods for Data Science	30	6	40%	70%	6.66%
Machine Learning Principles and Concepts	30	6	30%	70%	6.66%
Advanced Database Systems	30	6	30%	70%	6.66%
Timeseries Forecasting	30	6	30%	70%	6.66%
Advanced Machine Learning	30	6	30%	70%	6.66%
Data Mining	30	6	30%	70%	6.66%
Core Total		48			
Elective Courses					
Elective 1	30	6	30%	70%	6.66%
Elective 2	30	6	30%	70%	6.66%
Electives Total		12			
Master's Dissertation		30			33.3%
Degree Total		90			100%

* Coursework may consist of a short exam, an invigilated test, a group or individual assignment. Weights might change, subject to the appropriate decision taken by the course instructor, based on academic criteria.

To qualify for the Master's Degree, a student must acquire a total of 90 credits.

Credits and marks are awarded for all successfully completed and passed courses.

8. Re-examination of Failed Courses

- 8.1 In order for the student to succeed in both the course exams and the written assignment, he/she must have obtained a grade of at least five (5). The student who fails in one of the courses is re-examined during the respective re-examination period. If a student also fails the re-examination, he/she has the right to repeat it or, in the case of an elective course, to replace it with another.
- 8.2 If the postgraduate student fails in the examination of a course, in accordance to the Regulations of Postgraduate Studies, he/she can request to be examined by a three-member academic committee of the School with the same or related subject matter with the examined course. The three-member committee is appointed by the Provisional Department Assembly, based on the current legislation. The teacher of the course is excluded from the committee.
- 8.3 In exceptional cases, such as inability of the student to take part in the examinations or to deliver work for serious reasons due to force majeure, at the discretion of the Department, a special examination date or a new deadline may be set for the delivery of the student's work without a penalty, following decision of the Director of the Programme
- 8.4 Re-sit provisions will apply to all failed courses under the following provisions:
 - The re-sit method and date shall be prescribed by the Course Office in accordance with the course regulations. The content of the re-assessed component will be decided by the Course Leader;

9. Coursework Submission

- 9.1 Coursework must be submitted via online submission to the E-learning platform at <http://elearn.ihu.edu.gr> (this constitutes your receipt of submission).
- 9.2 **The deadline for all coursework is at 17:00 (5pm) on the submission date, unless otherwise indicated by the lecturer.** Students are required to retain a copy of all coursework submitted.
- 9.3 Online coursework submission allows the course officer to check the timeliness of submissions.

10. Class Attendance and Timely Arrivals

- 10.1 Students are expected to attend (be physically present or attend remotely in distance learning mode) all lectures and all other scheduled activities.
- 10.2 In the case of unavoidable absences, written proof of the medical or other serious personal or professional reason justifying that absence must be submitted.
- 10.3 Attendance of lessons is obligatory. Postgraduate students are required to attend the lectures, workshops and any activities provided by the instructor for each course. Any absence from class should be adequately justified. Unjustified absences may not exceed 20% of the total teaching hours. In case of exceeding this limit, it is considered that the student has not attended the course and, consequently, cannot be evaluated in it, and therefore is considered to have failed.
- 10.4 Late arrival/remote connection to a lecture or class is unacceptable and the lecturer has the right to refuse admission. In any case, every effort should be made to ensure that entrance does not interrupt the lecturer or distract the class.
- 10.5 Lectures normally include breaks. Lectures are carefully prepared and timed and any delay in restarting may cause it to over-run. The lecturer has the right to refuse readmission to anyone returning late.
- 10.6 Distance learning students:

- 10.6.1 Are expected to have their cameras on during lectures, for purposes connected with the normal educational procedure during the class.
- 10.6.2 Should inform the instructor preferably via chat in case of any necessary short disconnection during the lecture in order not to interrupt the lecturer or distract the class.
- 10.6.3 Should collect their questions during the lecture and submit them to the instructor via the zoom software (“raise hand” tool) or ask him/her directly during Q&A sessions arranged by the instructor.

II. Good Conduct

- 11.1 Students must use university facilities and equipment properly and with due care, to avoid damage or malfunction, and otherwise shall bear the responsibility for replacing damaged items.
- 11.2 Students shall behave with respect towards the teaching staff and administrative personnel of the University, as well as towards their fellow students, and shall not cause problems with disorderly behaviour.
- 11.3 Mobile phones should be turned off during lectures. Phones ringing during a lecture are not only intrusive but also extremely offensive.
- 11.4 Students wishing to make audio-recordings during course tuition must obtain the lecturer's written permission.

The general presence and behavior of the student is a prerequisite for the continuation of studies.

Expulsion of a student may be carried out upon the recommendation of the Coordinating Committee, following a hearing, with a decision of the Provisional Department Assembly, which is ratified by the Governing Board of the IHU, for the following reasons:

- a) Following application from a student.
- b) Due to a disciplinary offence, as described by the current legislation (par. 3, art. 24, law 4777/2021).
- c) Failure to successfully complete a total of ten (10) courses within the maximum time allowed
- d) Failure to submit or successfully complete the Master’s Dissertation within the maximum time frame or rejection for a second time.
- e) Unjustified exceeding of the approved suspension time.
- f) Failure to renew registration.
- g) Exceeding the limit of absences in two (2) or more courses.
- h) Neglect duties and obligations arising from the Curriculum and this Regulation.

Students are granted the right to apply for an informal appeal in accordance with the Code of Administrative Procedure, as applicable. Cases of plagiarism are detected by a special software that investigates and detects plagiarism and the relevant sanctions are dealt with according to the current legislation (Law 4777/2021 τ.A '). In case of expulsion of a postgraduate student, the paid tuition fees are not refunded, while the student is provided with a certificate of successful attendance for completed and passed courses upon request.

12. Students' Complaints Procedure

- 12.1 Students who wish to make a complaint concerning the quality of an academic programme, any related service or member of the academic or administrative staff should first do so at the local level, by raising the issue with the individual, department or service provider directly involved. Issues of concern may often be resolved more quickly and effectively at this stage.
- 12.2 If a student decides to make a complaint, this will be taken seriously, and confidentiality will be respected. Investigations will be carried out thoroughly and the issue determined fairly by someone who is not directly involved in the complaint. It should be noted, however, that complaint resolution may not be possible without revealing the identity of the complainant to the subject of the complaint and anonymous complaints will not be investigated. Allegations which are found to be unsubstantiated or malicious will be dismissed.

13. Appeal Committee

- 13.1 Students are entitled to submit an appeal to an Appeal Committee, appointed by the Governing Board, with respect to any decision concerning their status at the University. A student submitting an appeal is invited to exercise his/her right to be heard, according to Article 6 of the Greek Administrative Procedure Code.
- 13.2 The Appeal Committee examines any appeals against decisions of the Governing Board and/or the General Assembly of the School according to Article 24 of the Greek Administrative Code of Procedure.

14. Postponement of studies

- 14.1 Students may temporarily suspend their studies for a period not exceeding two consecutive academic semesters, following an application and approval by the Provisional Department Assembly and a relevant suggestion by the Coordinating Committee S.E. relating to family and personal reasons which will be duly proved. Suspension applications submitted three (3) weeks after the start of the course are not considered. The Provisional Department Assembly may approve the suspension of studies of a student, starting from the beginning of the academic semester for which the application is submitted. The semesters of suspension from studies are not counted in the maximum duration of study for obtaining the Postgraduate Degree. Upon expiration of the suspension, the student immediately continues their studies without application and the student's name appears in the attendance form. If during the period of suspension of a student, the program and/or the duration of studies is modified, then the student will follow a study program with the duration that was valid at the time of enrollment and will attend courses according to the correspondences between new and old courses for which the Provisional Department Assembly is responsible. Unjustified exceeding of the approved suspension time implies the immediate expulsion of the candidate from the Programme. In case of re-attendance or final withdrawal, the already paid financial participation of the students is not refunded.

15. Bibliographies and References Format

Bibliographies and references are to be arranged in a single list at the end of the area of work and presented in alphabetical order according to the surname of the first author. In the case of identical family names, alphabetise next by the forename or first initial of the author. In the case of two or more references by the same author, the name is given for the first entry, and an eight-space line (the underscore key struck eight times) takes its place in subsequent entries. The entries are then arranged chronologically with most recent submissions first. Please note that you are solely responsible for ensuring accuracy and format consistency in the bibliography and references section of any papers you write.

Some examples:

Book Citation:

Dunning, J. H. (1993) *Multinational Enterprises and the Global Economy*. Addison-Wesley, Reading, United Kingdom.

Caves, R. E. (1982) *Multinational Enterprise and Economic Analysis*. Cambridge University Press, New York, NY, USA.

Tip: Don't forget to give the name of the publisher in full, along with their location (city, state [for USA you show the abbreviation of the state], and country).

Edited Book Citation:

Kindleberger, C. P. (ed.) (1970) *The International Corporation*. MIT Press, Cambridge, MA, USA.

Szegedi, Z., Marer, P., and Waisvisz, P. (eds.) (1999) *Vállalati Esettanulmányok, 2. Kötet*. AULA Publishing Co., Budapest, Hungary

Chapter in a Book Citation:

Aliber, R. Z. (1970) A Theory of Foreign Direct Investment. In *The International Corporation*, Kindleberger, C. P. (editor), MIT Press, Cambridge, MA, USA.

Journal Article Citation:

Anderson, E. and Gatignon, H. (1986) Modes of Foreign Entry: A Transaction Cost Analysis and Propositions. *Journal of International Business Studies*, Fall, pp. 1-26.

Tip: Don't forget to include the page numbers on which the article appears. Also, remember that you italicize the title of the journal but not the title of the article.

Working Paper Citation:

Bellas, C. J., Bochniarz, Z., Jermakowicz, W. W., Meller, M., and Toft, D. (1994) *Foreign Privatization in Poland*. Center for Social & Economic Research (CASE), Warsaw, Poland, Working Paper, October.

Rojec, M., Jermakowicz, W. W., Illes, M., and Zemplinerova, A. (1995) *Foreign Acquisition Strategies in the Central European Privatization Process*. Center for International Cooperation and Development (CICD), Ljubljana, Slovenia, Working Paper.

Tip: Don't forget to include the name of the institution / organization and list the city and country where it is based (located) as noted in the publication.

Two or More Authors Citation:

Anderson, E., and Gatignon, H. (1986) Modes of Foreign Entry: A Transaction Cost Analysis and Propositions. *Journal of International Business Studies*, Fall, pp. 1-26.

Rojec, M., Jermakowicz, W. W., Illes, M., and Zemplinerova, A. (1995) *Foreign Acquisition Strategies in the Central European Privatization Process*. Center for International Cooperation and Development (CICD), Ljubljana, Slovenia, Working Paper.

Works by the Same Author Citation (that appear after one another):

Vernon, R. (1983) Organizing and Institutional Responses to International Risk. In Herring, R. (ed.), *Managing International Risk*, Cambridge University Press, New York, NY, USA, pp. 191-216.

_____ (1966) International Investment and International Trade in the Product Cycle. *Quarterly Journal of Economics*, No 80, pp. 190-207.

Works by the Same Author & Same Year Citation (that appear after one another):

Guyon, J. (1996a) *Lindahl to Succeed Barnevik as Chief Executive of ABB*. The Wall Street Journal Europe (WSJE), 11-12 October.

Guyon, J. (1996b) *At ABB, Globalization Isn't Just a Buzzword: It's a Corporate Culture*. The Wall Street Journal Europe (WSJE), 1 October.

Tip: Remember that you place the letter after the year in respect of the order in which these appear in your text. Hence, 'a' comes before 'b' and so forth.

Newspaper / Magazine Article Citation:

Rapoport, C. (1992) *How Barnevik Makes ABB Work*. Fortune, 29 June, pp. 24-27.

Roth, T. (1995) *Europe's Labors: Integrating the East, Reinventing the West Are One and the Same*. The Wall Street Journal Europe (WSJE), 30 June/1 July.

EIU (1999) *Business Eastern Europe*, Economist Intelligence Unit (EIU), 22 February.

Tip: Almost all newspaper/magazine articles have an author, so make sure that you properly site him/her. Also, the title of the article is not italicised while the source publication is italicised.

Internet Citation:

Czech Invest (1998) <http://www.czechinvest.org/>.

Renault (2001) <http://www.renault.com>.

Tip: You only need to show the primary source (main site) of any Internet site and the year in which you accessed the web site.

Company Annual Report Citation:

Renault (1999) *1998 Renault Financial Report*. Boulogne-Billancourt Cedex, France.

Generali Budapest Biztosító Rt. (1993-97) *Company Annual Reports 1992-96* (Hungarian/German language editions). Budapest, Hungary.

Tip: For Annual Reports the year of publication is almost always the year after the reported year. For example, a 1998 Financial Report is published in 1999.

Example of a Bibliography (listed in alphabetical and chronological order):

Bibliography:

Aliber, R. Z. (1970) A Theory of Foreign Direct Investment. In *The International Corporation*, Kindleberger, C. P. (editor), MIT Press, Cambridge, MA, USA.

Anderson, E. and Gatignon, H. (1986) Modes of Foreign Entry: A Transaction Cost Analysis and Propositions. *Journal of International Business Studies*, Fall, pp. 1-26.

Bellas, C. J., Bochniarz, Z., Jermakowicz, W. W., Meller, M., and Toft, D. (1994) *Foreign Privatization in Poland*. Center for Social & Economic Research (CASE), Warsaw, Poland, Working Paper, October.

Caves, R. E. (1982) *Multinational Enterprise and Economic Analysis*. Cambridge University Press, New York, NY, USA.

Czech Invest (1998) <http://www.czechinvest.org/>.

Dunning, J. H. (1993) *Multinational Enterprises and the Global Economy*. Addison-Wesley, Reading, United Kingdom.

EIU (1999) *Business Eastern Europe*, Economist Intelligence Unit (EIU), 22 February.

Kindleberger, C. P. (ed.)(1970) *The International Corporation*. MIT Press, Cambridge, MA, USA.

Rapoport, C. (1992) *How Barnevik Makes ABB Work*. Fortune, 29 June, pp. 24-27.

Renault (1999) *1998 Renault Financial Report*. Boulogne-Billancourt Cedex, France.

Roth, T. (1995) *Europe's Labors: Integrating the East, Reinventing the West Are One and the Same*. The Wall Street Journal Europe (WSJE), 30 June/1 July.

Vernon, R. (1983) Organizing and Institutional Responses to International Risk. In Herring, R. (ed.), *Managing International Risk*, Cambridge University Press, New York, NY, USA, pp. 191-216.

(1966) International Investment and International Trade in the Product Cycle. *Quarterly Journal of Economics*, No 80, pp. 190-207.

Tip: Pay attention to detail and get your sources (facts) right!!!

16. Plagiarism – Fraudulent Coursework - Malpractice

16.1 Plagiarism is the passing off of the ideas or words of someone else as though they were your own. It applies equally to the work of other students as to published sources. In addition, auto-plagiarism takes place when a student presents any prior writing of his or her own work, from another course or school, as entirely fresh work for course credit. This is also considered plagiarism.

16.2 Fraudulent or fabricated coursework is defined as work such as reports of laboratory or practical work that are untrue and/or fabricated, submitted to satisfy the requirements of a University Assessment in whole or in part.

16.3 Malpractice in University Assessments occurs when a candidate attempts to mislead or deceive the examiners concerning the work submitted for assessment. This includes colluding with others (including other students) in the preparation, editing or submission of work.

16.4 PENALTIES

The University takes a serious view of plagiarism, fraudulent, fabrication and malpractice and will act to ensure that students found in breach of its guidelines are dealt with severely. This action may lead to expulsion from the University. All work is marked on the assumption that it is the work of the student: the words, diagrams, computer programmes, ideas and arguments should be their own. However, much coursework will be based on what students have read and heard and it is important that you show where, and how, your work is indebted to those other sources.

Range of Penalties:

The range of penalties is described by the current legislation. When determining the penalty for a plagiarized, fraudulent, fabricated piece of work or other malpractice the following points should be taken into consideration that affects the severity of the penalty imposed:

- Severity of the offence (percentage of plagiarised work)
- The student's explanation and response to the allegation
- Maintenance of the principles of equal treatment and proportionality

17. Academic Misconduct

17.1 The University takes very seriously any form of cheating in examinations or other forms of assessment, including plagiarism (see above), impersonation, collusion and disruption.

17.2 Cases of suspected academic misconduct will be reported to the course office and academic staff and, where misconduct is established, a range of penalties may be recommended to the General Assembly, which body will decide on the penalty to impose. Its decision will reflect the severity of the offence and intent and may also result, in extreme circumstances, in expulsion from the University.

18. Examination Regulations

- 18.1 Students must bring their student ID card with them to all examinations. Admission to an examination without the ID card is prohibited. In case of loss of their ID card, students must notify the course office immediately.
- 18.2 Students must ensure that they arrive early enough to find the room in which they are sitting the examination. If they arrive up to half an hour late for their examination, they will normally be permitted to sit their exam. No extra time will be given, and students must finish together with all others taking the same paper. Only in the case of exceptional circumstances delaying their attendance and beyond their control will the full allotted time be allowed for the paper.
- 18.3 Students will normally be permitted to enter the examination room approximately 10-15 minutes before the start of the examination and only after permission has been given by the invigilator.
- 18.4 Students are not permitted to take any coat or bag or personal belongings (other than those needed for an examination) to the examination desk. Before entering the room, an invigilator will announce where belongings should be placed. Possession of a mobile phone, walkman, pager, personal organiser or any electronic device (other than those specifically allowed for an examination) is strictly prohibited whilst sitting an examination. Mobile phones must be switched off and placed in the student's coat/bag. Failure to do so may result in disciplinary action. Belongings should be kept to a minimum. Possessions are left at students' own risk.
- 18.5 Upon entering the examination room, talking is strictly prohibited. During the examination, students must fully comply with the invigilator's instructions and requests. Failure to comply may result in expulsion from the exams and corresponding penalties imposed by the School General Assembly.
- 18.6 Once students have found their desk, they must await the invigilator's instruction. They will be asked to fill in their details on the front of the answer booklets. At this time, they must place their ID card, face up, on their desk in order for an invigilator to confirm their identity. The invigilator will give permission to start reading the question paper. It is in students' own interest to read the instructions on the question paper carefully.
- 18.7 Students are required to supply their own pens, pencils, etc., at each examination. Where permission is given, students must supply their own hard-copy dictionary and calculator. Electronic dictionaries are not permitted. Students must comply with all instructions given by an invigilator before, during and after the examination.
- 18.8 If a student has a query, he/she should raise a hand and an invigilator will approach them. Students must not vacate the desk for the duration of the examination without the express permission of an invigilator. Failure to comply is an examination offence and may result in the examination script not being marked.
- 18.9 Students are not permitted to leave the examination room during the first half hour or the last 15 minutes of the examination. If they wish to leave the room at any other time during the exam, they should raise their hand and an invigilator will respond to their request. When allowed to leave, students should leave the room as quickly and quietly as possible with due consideration to their fellow students who may still be working. If students are given permission to temporarily leave the room, they will be accompanied by an invigilator. During this time, they will not attempt to contact any other person or consult any material relating to the examination.
- 18.10 When the invigilator announces the end of the examination, all students must stop writing. The front of each answer booklet must be fully completed, and the flap must be sealed securely. Students must not leave their desk until the script has been collected by an invigilator. A copy of the exam paper may only be taken if permission has been given to do so.

19. Extenuating circumstances

- 19.1 Students unable to attend an examination or to submit a piece of coursework at a set time due to illness, bereavement, business travel abroad or any other personal circumstance must produce documentary evidence testifying the reason for their absence (**medical documents must be stamped by the Medical Association before submitted or issued by public hospitals**). Students need to fill in a special Extenuating Circumstances Form (available on the E-learning platform at <http://elearn.ihu.edu.gr>) and submit it to the Course Office within 10 days of the examination. This will be considered by a competent committee appointed by the General Assembly of the School, which will decide whether to accept the reason and allow the student to take the examination as a first attempt (or allowable re-sit) or reject it and count the absence as a failure. In exceptional circumstances, and following approval by the General Assembly of the School, a special examination date may be set for the student or a new deadline given for submission of the paper.
- 19.2 **Special Examination Arrangements** Students with a physical or learning disability are given extra examination time or sit their examinations at an alternative venue along with any special provisions available. In order for students to apply for such special arrangements, they must provide the Course Office with current certification (from a responsible official state institution) detailing their condition well ahead of the exam period. The Course Office will decide on the special examination provisions to be made.

20. Dissertation Supervision and Submission

A student may undertake a dissertation once he/she has been examined in all the courses of the first and second semester of the Programme.

The student applies to the Coordinating Committee providing a title and the name of the supervisor, a member of the academic staff, following the academic's consent. A preliminary outline of the research is also provided.

Students may search for a supervisor and identify the dissertation subject during the second semester (full-time) or the expected last semester (part-time) and before the end of the semester. The research outline must specify the topic to be analyzed, the methodology of the scientific approach, as well as the literature to be used. The research proposal is accepted by the supervisor based on the relevance of the topic with the subject of the Programme, the expected scientific contribution and elements of originality in terms of the approach of the subject under investigation. The relevant proposal is signed by the supervisor.

After the evaluation of the application, the Coordinating Committee, makes a suggestion to the Provisional Department Assembly for the final decision. By decision of the Provisional Department Assembly, the supervisor is appointed and a Three Member Examination Committee is formed for the final examination and approval of the thesis, following a relevant proposal of the supervisor. The three-member committee consists of the Supervising Professor and two (2) additional members whose subject matter is similar or relevant to the scientific area of the Postgraduate Thesis and are academic staff.

The subject of the dissertation is registered in a special list for theses that is kept in the Secretariat of the Programme. In this list the name of the candidate, the supervisor's name and the names of the members of the committee are included as well as the date of submission either successful or not.

The postgraduate student is obliged, depending on the progress of the dissertation, to inform the supervisor of any issue related to it.

The study and writing of the thesis must be completed within the time provided for it, i.e. before the beginning of the examination period of the semester. Otherwise, a new evaluation date is set, at least three (3) months later.

When the thesis is completed, with the sufficient number of words and content, it is submitted in electronic copy (doc or docx or pdf) to the Secretariat of the Programme, with the consent of the supervisor that it meets the requirements, after checking the suitability of the content and the case of plagiarism. Plagiarism is detected with the use of a software provided by the Department. In case of plagiarism, the supervisor informs the President of the Department and the current legislation (Law 4777/2021 τ.Α ') is implemented. Then, the Secretariat forwards the thesis to the members of three-member committee.

Submission of the thesis should take place at least one (1) month before the postgraduate thesis examination period, in order for the members of the committee to have sufficient time to study and submit observations. The thesis is judged by public presentation and examination, at the request of the student and the consent of the supervisor, or is returned, noting the reasons for referral and the possibility of resubmission within a specified period of at least three month.

The presentations of the theses are made on dates set by the Provisional Department Assembly following a proposal of the director of the Programme, in collaboration with the Secretariat of the Department. The invitation and announcement for the public presentation of the thesis is addressed by the Director of the Programme and includes information about the place and time.

During the presentation, the student presents to the Committee the main points of the dissertation, with its conclusions. The presentation may not exceed twenty (20) minutes. The members of the Committee then ask the student questions, whose total duration may not exceed thirty (30) minutes, so that the members of the committee, as well as the other attendees, form a clear opinion of the student's object of work and ability to support it.

After the presentation, the thesis is evaluated by the committee in terms of research, scientific methodology for obtaining the results and conclusions, presentation of a literature review and usefulness of the findings, taking into account the written and oral presentation and the answers of the student to the questions during the examination. Then, the supervisor submits to the Secretariat the examination report, which includes the grade of each examiner, with a rating scale from zero (0) to ten (10), and any remarks. The grade of the thesis is equal to the average of the three grades, taking into account any violation of submission deadlines. To qualify for a Master's degree, a student must achieve a minimum grade of 5.00 in the Dissertation.

It is not possible to change the subject of a student's thesis, except by decision of the Provisional Department Assembly, following proposal from the supervisor. Changing the subject of a thesis is in no way a reason for extending the relevant deadlines.

In exceptional cases, for an important reason, it is possible to replace the supervisor or a member of the Three-Member Committee, upon the recommendation of the Coordinating Committee and decision of the Provisional Department Assembly. Such reasons may be educational leave, retirement, resignation or other serious personal reasons. The replacement of a member or members of the Three-Member Committee is in no way a reason for extending the relevant deadlines.

After the successful evaluation of the dissertations and their correction based on any comments of the Three-Member Examination Committee, with the consent of the supervisor, the students upload the final version of their dissertation on the digital repository of the International Hellenic University, which is managed by the University Library. Upon submission of the dissertation, the Library issues a Certificate of Master's Dissertation Submission for the student, which he/she submits to the

Secretariat as part of their obligations for the completion of studies, according to the relevant article. Exceptionally, and for reasons that are specifically documented, following a decision of the Provisional Department Assembly, a part of the thesis containing unpublished data, may not be posted in the repository of the International Hellenic University.

The submission requirements for dissertations are:

1. Dissertations must be submitted via online submission to the E-learning platform at <http://elearn.ihu.edu.gr> (this constitutes receipt of submission). The deadline is 17:00 (5pm) on the submission date.

The International Hellenic University has adopted an **Open Access Policy** from 10/02/2015 (<https://repository.ihu.edu.gr/xmlui/page/openaccess-policy-en>). In brief, Open Access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions.

Along with this policy, the IHU Library proceeded with the creation of an Institutional Repository (<https://repository.ihu.edu.gr/xmlui/> the online archive), where all scholarly material can be submitted, kept and managed.

Part of the collection consists of the Master's dissertations and PhD theses. **Students are required to submit their dissertations and theses to the repository making them accessible to the wider academic community.**

The dissertations are submitted to the repository in pdf form and therefore content alterations are not possible.

This process is part of the dissertation/thesis submission workflow and is intended to ensure the content accuracy and quality of the dissertation/thesis submitted.

Students are strongly advised to carefully read the terms of submission before submitting their work <https://repository.ihu.edu.gr/xmlui/page/terms-en>.

Students are kindly requested to follow the procedure described below, after the submission of their dissertation:

1. Correct their dissertation according to the relevant comments of the Committee (if any, sent by the Course Office) in collaboration with their supervisor.
2. Upload the **final version** of their dissertation on the IHU Repository (<https://repository.ihu.edu.gr/xmlui/?locale-attribute=en>).
 - Students are requested to submit the **final version** of their dissertations making them accessible to the wider academic community. As the pdf file is the **final version**, content alterations are not possible. Students are strongly advised to carefully read the terms of submission before submitting their work <https://repository.ihu.edu.gr/xmlui/page/terms-en>. For a quick guide please follow the link: <https://repository.ihu.edu.gr/xmlui/page/submission-quick-guide-en>.
 - If further assistance is needed with the submission process to the Institutional Repository students must contact the Library at +30 2310 807560, library@ihu.edu.gr.
2. Students have to submit to the Course Office:
 - The "Electronic Master's Dissertation Release" form, filled and signed by them. The form will be provided by the Course Office.
 - The "Certificate of Master's Dissertation Submission" form, confirming that they have submitted their dissertation on the IHU Repository and have returned any borrowed material, signed by the Library. The form will be provided by the Course Office.

21. Re-examination of Failed Dissertation

For students who fail the dissertation, the committee sets a new evaluation date, at least three (3) months after the first submission. Students are allowed to re submit their dissertation only once.

22. Assessment Boards

22.1 The Assessment Board is responsible for considering and agreeing all assessment results and making decisions about whether students have met all the requirements of the programme. Any results given to students during the year are provisional prior to ratification by the Assessment Board. Any extenuating circumstances submitted by students, such as ill-health, are considered by a Panel the recommendations from which are presented to the Assessment Board.

22.2 Assessment Boards are held three times over the academic year following each assessment period. Examination papers are marked initially by subject lecturers. All marks, coursework and examinations are reported to and verified by the Assessment Board. Examination results are made available to students no later than 12 working days after an Assessment Board meeting.

23. Degree Classification

23.1 The award of the degree shall be calculated on the basis of the overall aggregate of the course marks weighted according to their credit value. The classification shall be determined as follows:

Distinction will be awarded if:

The weighted average mark across all courses and the dissertation is 8.50 or above

Merit will be awarded if:

The weighted average mark across all courses and the dissertation is between 6.50 – 8.49 inclusive.

Pass will be awarded if:

The weighted average mark across all courses and the dissertation is between 5.00 – 6.49 inclusive

Fail. A student fails to meet the requirements for the award of a degree if:

The average mark of any course or the dissertation is below 5.00 after one re-sit examination or assessment.

PART III: UNIVERSITY FACILITIES

IHU Library & Information Centre

Mission statement

The Library mission is to provide high quality services to all members of the IHU academic community (students, researchers, teaching staff, administration staff, etc.) and to support user access to specialised knowledge in their scientific fields. The Library collection consists of books, journals, reference material, subscriptions to online databases and electronic journals, both relating to the modules taught on the EMBA & Masters Courses and to the wider research and information needs of the Academic Community.

Library collection

The Library cares for the enrichment and administration of its collection and other resources, in order to meet the educational, research and/or other cultural needs of the university community. The Library is also responsible for the administration of these collections according to its regulations of operation, including the process of selecting, ordering and acquiring material. The selection of the appropriate printed materials as well as other resources is assisted by the members of the academic community of the University.

Members of staff are responsible for ordering and taking receipt of the material. This process includes checking proper receipt of copies ordered and the invoice prices. The incorporation of the material into the collection is completed with the inventory and registration in the automated catalogue. The work is performed by librarians specialised in the digitised cataloguing of materials.

The following international standards are implemented in the processing of Library materials:

- For cataloguing: the Anglo-American Cataloguing Rules (AACR)
- For electronic cataloguing: the rules of Machine Readable Cataloguing (MARC21)
- For classification: the Dewey Decimal Classification system
- For subject terms: the Library of Congress Subject Headings (LCSH)

The Library Collection comprises a wide range in terms of subject, of book titles and print journals relating to the courses offered at the University. Databases and electronic materials are also available to the user community, ensuring that their educational and research needs are covered.

Collection Management

The books are located in the main Library area, classified according to the Dewey Decimal Classification System. Subject signs are displayed on the shelves to assist users in their search.

All books are available for loan according to the loan regulations, with the exception of reference material (dictionaries, encyclopaedias, art books and student theses), which are placed on distinct bookshelves.

The journals are clearly visible in alphabetical order on special display shelving. The journals are available only for use in the Library area and are not for loan.

Electronic databases and all other electronic materials are available on site in the Library. The databases can be accessed only by the internal users of the Library using passwords and personal codes.

The print material is catalogued on the automated Library system SIERRA using the MARC21 format, the Anglo-American Cataloguing Rules and the Library of Congress Subject Headings.

All print material is searchable through the Library online catalogue (http://opac.seab.gr/*eng).

Donations

All donations are welcome. Acceptance is on the basis of assessment and valuation. The criteria taken into account in the assessment are:

- The importance and/or rarity of the material contained in the donation (or other special reason)
- The donated material's relevance to the development objectives of the Library
- The fitness of the gift
- Respective gaps in the Library collection
- Any need to supplement the number of copies available within the collection due to frequent use.

Users

Access to the Library and reading rooms is open to all the members of the academic community and, upon respective authorisation, to members of the public.

"Library User" is taken to mean anyone entering the Library and reading rooms for the purpose of using their materials and resources for educational and research purposes. In the case of high attendance, priority is given to the Members of the Library.

Members of the Library and reading rooms are members of the university community, including: a) students, b) graduate students, c) lecturers, d) invited lecturers, e) academic staff, f) administrative staff and g) invited researchers.

Other external users are permitted to visit the Library and use (study) the print material only within the area of the Library. External users are not allowed to borrow material or use the databases and electronic material.

Personal data of members is confidential. Only Library employees acting in their capacity as such and the administrator of the database of the automated Library system shall have access to this data, which shall not be disclosed to any third party.

An information and assistance service operates in the Library area.

User obligations

Users are required to abide by the regulations, comply with the recommendations of staff and respect other users of the areas of the Library and reading rooms.

Users must use with respect all books, documents and any other material they use inside or outside the Library space. They must not write on or damage materials belonging to the Library.

Users are fully responsible and accountable for the loss or destruction, in whole or in part, of any document or equipment, or for damage or wear of materials beyond that resulting from their normal use; users are required to compensate the value of any such loss, damage or wear. The amount of compensation is

determined by decision of the competent services of the Library subject to the approval of the relevant supervisory authority.

Smoking and the consumption of food or drink is prohibited on the premises of the Library and reading rooms. The use of mobile phones and any other device the use of which, at the discretion of staff, involves annoyance to other users is also prohibited.

Members of staff have the right, at their own discretion, to prohibit objects which can cause damage to the material or which may give cause for suspicion of intended theft.

Animals (other than guide dogs) are not allowed into the Library.

Users must not put the books or journals they have used back on the shelves but should leave them on the desk designated for this purpose.

Borrowing

Terms of loans and renewals

All Library members have the right to borrow material.

The conditions under which a user may borrow material depends on the user category:

EMBA Students	up to 5 books for 35 days
Full-time and part-time Masters Students	up to 5 books for 5 or 15 days
Academic Staff	up to 5 books for 5, 15 or 35 days
Administration Staff	up to 3 books for 5 or 15 days
Alumni	up to 2 books for 5 or 15 days

The following signs on the book spine indicate:

 = 5 days loan

 = not for loan

 = reference material, not for loan

The material is inspected when borrowed and returned. In the case of damage or unjustified wear, a fine will be charged accordingly by the Library.

The loan period may be extended by users by contacting the Library staff.

Users can apply to reserve a book already out on loan. With the return of the book the interested user is notified by telephone or by email. The user who has the material on loan is required to return it within the time limits set by the automated Library programme and may not extend that period.

Electronic information services

The electronic resources are available locally on the University campus (Library area, PC Labs) or remotely via VPN instalment and the use of codes and passwords.

The Library staff can change the codes and passwords during the academic year in order to ensure the security of the codes. Users are always informed of such changes.

All users are obliged to sign the copyright agreement confirming that they will use databases for their own private purposes and that the codes and passwords will not be disclosed to any third party. In addition, users must affirm that the data they collect will be used only for academic purposes.

The Library website (<http://www.lib.ihu.edu.gr/>) provides information on all the services offered by the Library, such as electronic resources and a brief analysis of the same, bibliographic databases, electronic journals. Information about how to contact staff, hours of operation and a form by which to submit quick questions (Ask a librarian) are also available.

The IHU Library provides users with an interlibrary loan service allowing them to access material in other libraries, as defined by the decision of the supervisory authority. The material becomes subject to Interlibrary Loan provisions of this Regulation and to any other regulations imposed by the lending Library. The due date and overdue fees of the material borrowed are set by the lending Library.

Photocopying and digital reproduction

All Library users shall use the Library photocopy machine to cover only their needs as arising in the context of their studies.

If any item is not in good condition or there is a danger of suffering damage, it shall not be photocopied.

Users are obliged to respect the legislation on the protection of intellectual property and copyright (up to 10% of the total number of pages of a single authored book is allowed).

Users are obliged to respect and comply with any license terms that the University has signed with third parties regarding the reproduction by any means of books (photocopying, photographing, electronic reproduction), the use of software and databases, and access conditions and use of such data.

User training

The acquisition of new sources, methods of information retrieval and the use of services provided require the proper training of Library Members so as to be in a position to fully benefit from Library resources and services. The Library operates an education service which is responsible for the organisation of appropriate training seminars.

Library working hours

The IHU Library & Information Centre is open throughout the year except during University holidays.

Opening hours: **Consult the library's website:**

<http://www.lib.ihu.edu.gr/index.php/the-library/working-hours>

Library Contact Details

T +30 2310 807560

F +30 2310 474569

library@ihu.edu.gr

Library staff:

Georgia Roidouli - Library Manager, email: g.roidouli@ihu.edu.gr

ICT Services

Computer laboratories are available for student use and for teaching purposes on the University campus. The facilities provided are primarily PC-based computing and internetworking, reflecting the mix of Information & Communication Technologies (ICT) available in the business community. The main PC labs have PCs with Windows 10, connected to the University campus area network and to the Internet, which gives users access to electronic mail, conferencing facilities, and library, academic and business information worldwide. There is also wireless (WiFi) access to the University network covering the entire campus, as well as universal access to/from other Universities through the global EduRoam network. An extensive range of software includes a variety of generic PC software such as word processing, spreadsheet and business graphics, as well as more specialized software such as statistical packages, software development frameworks, simulation packages, CAD software and business management software. Furthermore, fully equipped distance learning rooms are available to cover online courses and seminars. The facilities, together with the Computer Support Service, are designed to provide full IT support for students, backed up with all the help and advice they may require.

Student Portal

The Student Portal has been designed to allow students find everything they need in one place. Students can reach the portal at: <https://students.ihu.edu.gr/>

Careers Office

The Careers Office is one of the most active, dynamic and forward looking departments of the International Hellenic University. Its role is to actively engage students in exploring and pursuing their career aspirations by providing a wide range of career - related services.

Mission of the Careers Office

The Careers Office is committed to providing professional guidance, resources and access to employment opportunities to a diverse body of students and alumni. The office has adopted a student-centered philosophy according to which each student receives individual support for every career concern.

Webpages

- Visit the Careers Office website at <https://ecs.ihu.edu.gr/career-office.html> and find out more about the services offered.
- Visit the Business Gateway portal at www.ihu.edu.gr/gateway and have access to employment and internship opportunities from the global job market.

Contact us

We welcome your questions regarding your career planning and your career opportunities. An IHU Careers Officer will respond to your inquiry as soon as possible. Please direct your inquiries to careers@ihu.edu.gr or give us a call.

Tel: +30 2310 807 506, +30 2310 807 507

Fax: +30 2310 474520

Where to find us: The Careers Office is located in Building A, Ground floor.

Alumni Network

As an alumnus of IHU, you are invited to be a part of an active network that helps you to stay in touch with each other and feel part of the School after your graduation. The network is designed to facilitate your connections and to enhance global communication for both social and business opportunities.

Staying in contact with the IHU has a number of benefits, including:

- Individual career advising
- Lifelong support on career issues
- National and International networking opportunities
- Continued learning and career advising
- Access to online services
- Access to library resources
- Participation in various events including career fairs, reunions, social gatherings, symposiums and conferences

You become a member of the Alumni Network automatically upon graduation and membership is free of charge. **Upon your graduation, you are eligible to become a member of “International Hellenic University Alumni” group at LinkedIn.**

Alumni who decide to follow a second postgraduate programme of study at the IHU after the successful completion of their first programme at the IHU are granted a 20% fee discount.

We envisage that many alumni will maintain close links with the School and will be welcomed back to act as advisors or mentors, to work with us on recruitment both in Greece and abroad, providing invaluable help at University Fairs, and offering current students job briefings, mock interviews and advice on business research projects.

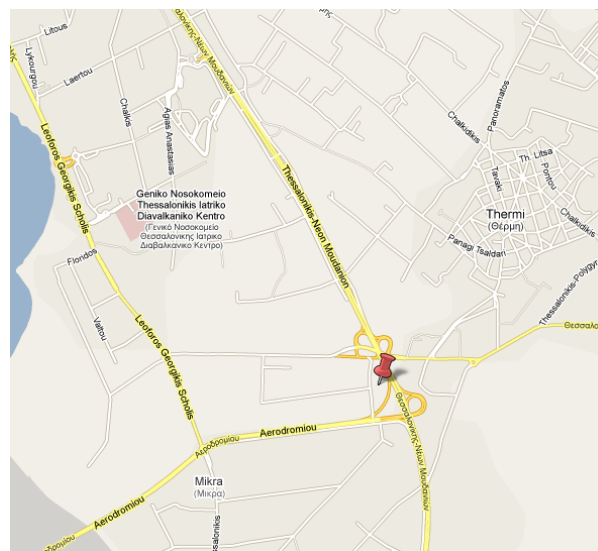
Contact Information

Address

School of Science and Technology
14th km Thessaloniki – N. Moudania
57001 Thermi
Greece

Contact

Homepage www.tech.ihu.edu.gr
e-mail infotech@ihu.edu.gr
Telephone +30 2310 807529
Fax +30 2310 474520



School Staff Directory

Name	Position	Tel	e-mail
Academic Staff			
Dr C. Tjortjis	School Dean, Associate Professor (Data Science & ICT)	+302310807576	c.tjortjis@ihu.edu.gr
Dr E. Heracleous	Associate Professor (Energy & Environment)	+302310807578	e.heracleous@ihu.edu.gr
Dr P. Bozanis	Professor (ICT & Data Science)	+302310807501	pbozanis@ihu.gr
Dr M. Drakaki	Associate Professor (Energy & Environment)	+302310807524	mdrakaki@ihu.gr
Dr V. Peristeras	Associate Professor (Data Science & e-Business)	+302310807539	v.peristeras@ihu.edu.gr
Dr D. Tzetzis	Assistant Professor (Product Design)	+302310807548	d.tzetzis@ihu.edu.gr
Dr Spiros Papakostas	Assistant Professor (Bioinformatics)	+302310807501	pchatzimisios@ihu.gr
Dr C. Berberidis	Teaching Staff (Mobile & Data Science)	+302310807534	c.berberidis@ihu.edu.gr
Dr D. Baltatzis	Teaching Staff (ICT & Cybersecurity)	+302310807522	d.baltatzis@ihu.edu.gr
Dr G. Martinopoulos	Academic Associate (Energy & Environment)	+302310807533	g.martinopoulos@ihu.edu.gr
Dr K. Tzafilkou	Academic Associate (ICT & e-Business)	+302310807533 4	ktzafilkou@ihu.edu.gr
Dr L. Akritidis	Academic Associate (Data Science & e-Business)	+302310807533 4	lakritidis@ihu.edu.gr
Dr D. Karapiperis	Academic Associate (ICT & Data Science)	+302310807533 4	dkarapiperis@ihu.edu.gr
Dr P. Koukaras	Academic Associate (ICT & Data Science)	+302310807533 4	p.koukaras@ihu.edu.gr

Dr Nikolaos Serketzis	Academic Associate (Cybersecurity)	+302310807522	nserketzis@ihu.edu.gr
-----------------------	------------------------------------	---------------	-----------------------

Administrative Staff

Mr G. Psomiadis	Head of Secretariat	+30231080753 2	ipsomiadis@ihu.edu.gr
Ms A. Karavasili	Programme Manager	+30231080752 9	a.karavasili@ihu.edu.gr
Ms E. Karatasiou	Course Officer	+30231080753 1	e.karatasiou@ihu.edu.gr
Ms Valentini Chatzidimou	Course Officer	+30231080753 1	vchatzidimou@ihu.edu.gr