SCHOOL OF BUSINESS

DEPARTMENT OF MARKETING & COMMUNICATION

STUDY GUIDE

ATHENS, ACADEMIC YEAR 2022-2023

STUDY GUIDE
ACAD.YEAR 2022-2023

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STUDY GUIDE
ACAD.YEAR 2022-2023

PART I: INFORMATION ABOUT THE INSTITUTION

CONTACT DETAILS (Name & Address)

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS (AUEB)

Address:76, Patission Str. GR-10434, Athens

Telephone number: +30-210-8203911

Website: https://www.aueb.gr

 e-mail: webmaster@aueb.gr

Facebook: https://www.facebook.com/auebgreece

Twitter: https://twitter.com/aueb

ACADEMIC AUTHORITIES

The rectorate authorities consist of the Rector and the Vice Rectors:

Rector:

Professor Dimitris Bourantonis

Vice Rectors:

Vice Rector of Academic Affairs and Personnel
Professor Vasilios Vasdekis

Vice Rector of Research and Lifelong Learning
Associate Professor Georgios Lekakos

Vice Rector of Financial Planning and Infrastructure
Professor Konstantinos Drakos

Vice Rector of International Cooperation and Development
Professor Vasilios Papadakis

School of Business
Dean: Professor Angeliki Poulymenakou
Department of Marketing & Communication
Chair: Professor Konstantinos Indounas
Master's Program in Marketing Analytics
Director: Professor George Baltas
Contact details
Address: 47A Evelpidon & 33 Lefkados Str.
Telephone number: +30 210 820 3665
Email: marketinganalytics@aueb.gr

Website: www.dept.aueb.gr/marketinganalytics

ACADEMIC CALENDAR

- ➢ **FALL SEMESTER**: 12/9/2022-6/2/2023
- ➢ **Christmas Recess:** 16/12/2022-5/1/2023
- ➢ **Fall Semester Examination Period**: 31/1/2023-6/2/2023
- ➢ **National/Bank Holidays**: 28/10/2022, 6/1/2023, 30/1/2023
- ➢ **SPRING SEMESTER**: 7/2/2023-16/6/2023
- ➢ **Easter Recess**: 10/4/2023-21/4/2023
- ➢ **Spring Semester Examination Period**: 12/6/2023-16/6/2023
- ➢ **National/Bank Holidays**: 27/2/2023, 1/5/2023, 5/6/2023

AUEB's OPERATIONAL STRUCTURE

The structure and operation of the Institution is defined by current legislation as in force. The Athens University of Economics and Business is under the supervision of the Ministry of Education, Research and Religious Affairs. Its governing bodies include:

The Governing Council
The Senate
The Rector
The Vice-Rectors
The Executive Director

Until the Governing Council assumes its duties, administration is exercised by the University's Rector's Council

AUEB's ACADEMIC STRUCTURE

The Athens University of Economics and Business is structured by academic units of two (2) levels: a) the Schools, and b) the Departments

Each School is structured by at least two (2) Departments, covers a domain of related scientific areas, and ensures the interdisciplinary approach to teaching and research between its departments. The School is responsible for supervising and coordinating the operation of the Departments and the educational and research work produced, in accordance with the Internal Operating Regulations.

The bodies of the School, according to Law 4957/2022 (A 141) as applicable are: a) the Dean and b) the Dean's Council

The Department is the University's fundamental academic unit and aims to advance a specific field of science, technology, letters and arts through education and research. The Department consists of all the

members of the Teaching & Research Staff (DEP), the members of the Special Education Staff (EEP), the members of the Laboratory Teaching Staff (EDIP) and the members of the Special Technical Laboratory Staff (ETEP).

Bodies of the Department according to Law 4957/2022 (A 141) as applicable are: a) the Assembly, b) the Board of Directors, c) the Head/Chair and d) the Deputy Head/Chair.

The Athens University of Economics and Business consists of three Schools & eight Departments:

1. **SCHOOL OF ECONOMIC SCIENCES**

   Department of International and European Economic Studies

   Department of Economics.

2. **SCHOOL OF BUSINESS**

   Department of Management Science and Technology

   Department of Business Administration

   Department of Accounting and Finance

   Department of Marketing and Communication**.**

3. **SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY**

   Department of Informatics

   Department of Statistics

ADMINISTRATIVE BODIES OF POSTGRADUATE STUDY PROGRAMS

Competent bodies for the organization and operation of the Postgraduate Study Programs are:
a) the Senate,
b) the Assembly of the Department,
c) the Coordinating Committee (CC), and
d) the Director of the Postgraduate Program.

Especially for inter-departmental, inter-institutional and joint programs, the responsibilities of the Department's Assembly are exercised by the Curriculum Committee

UNIVERSITY STAFF

The University staff consists of the following categories:

- TEACHING STAFF:
• Teaching & Research Staff (DEP)

- Emeritus Professors
- Visiting Professors
- Special Education Staff (E.E.P.)
- Laboratory Teaching Staff (E.DI.P.)
- Special Technical Laboratory Staff (E.T.E.P.)
- Auxiliary Teaching Staff
- Teaching Fellows
- Scientific Faculty Members
- Adjunct Instructors
- Secondet Teachers

- **ADMINISTRATIVE STAFF**

SERVICES

The Athens University of Economics and Business provides both administrative and other services (meals, housing, library, sport facilities etc.) aiming at serving both its students and staff. More information on the organization and operation of the University's services can be found on the University´s website (http://www.aueb.gr/en).

General description of the University

The Athens University of Economics and Business (AUEB), as a Higher Educational Institution, is a legal entity governed by public law and supervised by the Ministry of Education, Research and Religious Affairs.

AUEB is, in order of seniority, the third Higher Education Institution of the country and the first in the fields of Economics and Business Administration. Later, the scientific fields of Informatics and Statistics were added. Since its founding, in 1920, AUEB has a rich and noteworthy tradition of significant academic achievements that define the present and create excellent prospects for the future.

The University as a center of excellence, in academic research and teaching, is rated as one of the leading universities in its subject areas in Greece and one of the best internationally. The high level of its staff, the quality in teaching and research, the modern curriculum/courses, but also the high demand of its graduates significantly enhance the University's brand name and reputation, in Greece and abroad.

Detailed information on the study programs is provided in the study guides and departmental websites.

Chief Regulations of the University (including academic recognition procedures)

The regulations include, for example:

- The University's Internal Operating Regulations
- The Organization of Administrative Services
- The Regulations for the Operation of Postgraduate and Doctoral Study Programs
- The Internal Regulation for conducting postdoctoral research

AUEB's ECTS Coordinator

The University's ECTS Coordinator is the Quality Assurance Chairperson, who ensures the University's compliance with the principles and rules of the European credit accumulation and transfer systems, supervises compliance and implementation and is responsible for the full recognition and transfer of credit units.

PART TWO: INFORMATION ABOUT THE GRADUATE PROGRAMME IN MARKETING ANALYTICS

GENERAL DESCRIPTION

Awarded academic title:

M.Sc. in Marketing Analytics .

Subject matter:

The master's programme aims to promote knowledge and develop research in the field of marketing science and analytics, which includes quantitative analyses, models, surveys and supports decision-making in marketing by analyzing quantitative data from consumer behavior in both physical and digital environments.

The programme focuses on the following subjects:

a) Marketing Science, i.e. the application of scientific methods and quantitative research in Marketing.

b) Analytical Marketing, i.e. the measurement, description, evaluation, prediction, optimization and utilization of data from Marketing actions

Expected learning outcomes:

Upon successful completion of the Study Programme, graduates of the MSc in Marketing Analytics are able to:

- To demonstrate the usefulness of academic knowledge in the marketplace.
- To use their acquired knowledge and understanding to solve complex marketing problems, especially in today's competitive and uncertain business environment.
- To clearly articulate their thoughts and proposals in the work and professional environment.
- Select, specialize and apply basic and advanced quantitative models to data generated in the marketing field.
- Understand key strategic metrics and leverage website traffic and digital advertising campaign data to make effective management decisions.
- Analyze a variety of data from the World Wide Web and from social networks, including text data.
- Manage typical examples of text data such as customer and expert reviews, social media comments, blogs, news articles, and e-commerce product descriptions.
- Perform all stages of text data management, from collection (web scraping), preparation (clearing

and parsing), until their analysis.

- Use a programming language to solve practical problems related to text data, such as sentiment processing, categorization, topic modeling, summarization, and entity processing.
- Recognize the basic concepts of Artificial Intelligence and Machine Learning and Neural Networks, which they will be able to use in prediction and classification problems (e.g. customer churn prediction)
- To solve the new product design problem with optimization algorithms
- Develop an in-depth knowledge of the content of multivariate analyzes and relate them creatively to marketing management while being able to evaluate them and select that multivariate analysis that fits the decision problem they face and the data they may have available as executives.

Access to further studies:

The MSc provides access to 3rd cycle programmes leading to a PhD.

INTRODUCTION TO THE PROGRAMME

Entry requirements

Admission to the programme requires:

- In the MSc are admitted graduates of Greek universities or foreign institutions recognized by DOATAP, in accordance with the provisions of article 34 of Law 4485/2017.
- Knowledge of the English language at C2 level for the full-time programme and C1 for the part-time programme
- Proven professional experience for the part-time programme.

Application process

Every year and after the 8th of January, an announcement for the admission of postgraduate students to the MSc is published and posted on the website of the department and the Master programme, with the recommendation of the Director and the decision of the Department Assembly.

Candidates can submit their application within the published deadline. The application process as well as the required supporting documents are described in detail in the announcement.

Selection process

The selection of students is made in accordance with the provisions of Law 4485/2017 and the provisions of the Study Regulations of the MSc.

The selection process is as follows:

- The Candidate Evaluation Committee draws up a complete list of those who have applied and the required supporting documents.
- Rejects applicants who do not meet the minimum criteria decided by the Departmental Assembly (e.g. level of English knowledge, years of service)
- It invites to a personal interview the candidates who meet the minimum criteria decided by the Assembly of the Department
- It evaluates the candidates and makes the final selection.
- The final list of successful candidates and any runners-up is validated by the Department's Assembly
- The letter of acceptance to each candidate who is accepted to MSc is accompanied by the Study Regulations of the programme and gives a leeway of 15 days from its dispatch, in order for the candidate to deposit the advance payment of the tuition fees required to secure his or her place at programme. After the deadline, the Director of the programme may proceed to accept the runners-up in order of success.

Number of admissions

The maximum number of admissions to the MSc is seventy-two (72) postgraduate students, who are equally distributed between the full-time and part-time programmes (36 in full-time and 36 in part-time programmes).

Registration

The deadline for registration of new students is set by the Executive Committee of the programme. Before registering, the candidate is informed of the Study Regulation and the re-establishment act of the MSc and sends a relevant signed declaration of acceptance of the programme rules.

Tuition fees

The tuition fees for attending the MSc programme are defined in Article 8 of the programme's re-establishment act, and there is the possibility of partial payment, which is defined by the programme. Selected postgraduate students prepay part of the total tuition fees to secure their place. Any paid tuition fees are non-refundable if the student wishes or is forced to discontinue their studies in the programme for any reason.

The tuition fees are as follows: • Part-time programme: €5,800 • Full-time programme: €4,800

Scholarships

The MSc programme provides the possibility of scholarships that cannot exceed the total amount of tuition fees, after a decision of the Department Assembly according to the current legal framework and the AUEB Scholarship Regulation. They are described in detail in the MSc Study Regulation.

CURRICULUM

1st SEMESTER			
COURSE CODE	**COURSE TITLE**	**TYPE OF COURSE**	**ECTS**
bm53101	Foundations of marketing for analysts	CORE	6
bm53102	Advanced quantitative consumer research	CORE	6
bm53103	Quantitative marketing models	CORE	6
bm53104	Digital marketing analytics	CORE	6
bm53105	Social Media marketing analytics	CORE	6
		TOTAL SEMESTER CREDITS (ECTS)	**30**
2nd SEMESTER (3 CORE COURSES KAI 2 ELECTIVE COURSES)			
COURSE CODE	**COURSE TITLE**	**TYPE OF COURSE**	**ECTS**
bm53106	Analytics for marketing decisions	CORE	6
bm53107	Artificial intelligence and machine learning with marketing applications	CORE	6
bm53108	Text analytics and web mining for marketing	CORE	6
	Elective course 1		6
	Elective course 2		6
		TOTAL SEMESTER CREDITS (ECTS)	**30**
bm53109	Master Thesis	CORE	30
		TOTAL PROGRAMME'S ECTS	**90**

LIST OF ELECTIVE COURSES
Multivariate analysis with marketing applications
Advanced consumer behavior
Advanced Product and Brand Management
Advanced digital analytics & optimization

The programme is enriched by a series of educational activities that support students and aim to develop their thinking ability. Educational activities include: workshops, tutorials, simulation games, research seminars, case study analysis, fieldwork, individual research and e- class exercises. Specifically, during the semesters and accompanying the modules, the following tutorials are offered:

- Introduction to Python
- Game simulation game
- Enginius platform
- Data analysis using SPSS

By decision of the Assembly of the Department and approval of the AUEB Senate modules may be added or removed from the curriculum. Modules can be redistributed between semesters by decision of the Executive Committee of programme.

Teaching and learning methods

The teaching of the programme's modules is assigned by the Department's Assembly, after a proposal by the Director.

The instructors suggest to the students a list of textbooks, articles and learning aids. Also, at the beginning of each period, they provide students with a description of the content of each module and the tasks that will be given during the module. The AUEB e-class platform is used to inform students and post educational material.

Lectures, case studies, assignments, business games and tutorials are used in teaching. There are also seminars and presentations by visitors from the field of business and higher education. There is full integration of digital technology in teaching.

Thirty-five percent (35%) of teaching is carried out compulsorily by distance-learning. This percentage can be increased if the regulatory framework of postgraduate studies allows it.

Monitoring the programme

Course attendance is mandatory, while the minimum teaching hours corresponding to each module is 21. The Programme Secretariat keeps a relevant attendance record and in the event that absences in a module exceed 1/3 of the study hours, the student is considered to have failed and repeats it in the next term to be held.

Language

The teaching and examination language as well as the language of the Master Thesis is Greek and/or English.

Student evaluation

The final evaluation of each module is done with written or oral exams and/or assignments.

The formation of the final grade of each module is determined by the instructors. Students' individual and group assignments can participate in the final grade.

The final exam schedule is announced in time and participation is mandatory. Students taking the exam must fully obey the instructions of the teachers and invigilators and fully comply with the AUEB Examination Conduct Guide.

The Examinations and Student Performance Evaluation rules can be found in detail in article 9 of the Regulation of Operation (Government Gazette 1020/ t.B ΄/4-3-2022).

ECTS

The total ECTS number in the programme is ninety (90) ECTS.

ECTS acquisition.

To obtain the MSc degree, mandatory attendance and successful examination of 8 core modules and 2 elective modules is required, which correspond to 60 ECTS as well as preparation of the master thesis, which corresponds to 30 P.M. The postgraduate student completes his studies and receives the MSc degree when s/he fulfills all the prescribed obligations, i.e. successful examination of the modules of the programme, approval of the thesis and payment of the tuition fees. A master's degree is not awarded to a student whose first cycle degree from a foreign institution has not been recognized by the Interdisciplinary Organization for the Recognition of Academic Titles and Information (D.O.A.T.A.P.) in accordance with law 3328/ 2005.

COURSES OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53101 **SEMESTER** 1st
COURSE TITLE	**FOUNDATIONS OF MARKETING FOR ANALYSTS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	GENERAL BACKGROUND
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK and/or ENGLISH
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to understand the:

- Use the knowledge and understanding that they have gained in order to solve sophisticated marketing problems, especially in the modern competitive and uncertain environment in which businesses operate.

- Share clearly and their thoughts and proposals to their colleagues and the broader stakeholders that a company collaborates with.

| - Acquire the necessary skills in order to continue their studies on a more advanced level (3rd cycle of studies). |

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others...*
	....

- Search for, analysis and synthesis of data and information, with the use of the necessary technology.
- Adapting to new situations.
- Decision-making.
- Working independently.
- Team work.
- Working in an international environment
- Working in an interdisciplinary environment
- Production of new research ideas.
- Project planning and management.
- Production of free, creative and inductive thinking.

3. SYLLABUS

he course's basic objective is to describe the importance and contribute of marketing in a business in line with the procedure that is required in order to make strategic marketing decisions. More specifically, the course aims to help students understand the marketing philosophy and function, the marketing management concept and the analytical tools that are necessary in order to make strategic marketing decisions and effectively design marketing plans (environmental analysis, marketing objectives, marketing strategy and tactics, feedback). All the above subjects are treated through an analytical and applied approach.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face.		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Yes.		
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational*	*Activity*	*Semester workload*	
	Lectures	50	
	Laboratory Practice	40	
	Individual Study	50	
	Guest Lecturers	10	
	Total	150	

visits, project, essay writing, artistic creativity, etc. *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The methods of evaluation are based on written exam through open ended questions (70% of final grade) and laboratory work (30% of final grade). The evaluation criteria are given and are accessible to students in the course's e-class platform. Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

- Bendle, N.T., Farris, P.W., Pfeifer, P.E. and Reibstein, D.J. (2019), Marketing Metrics: The Manager's Guide to Measuring Marketing Performance, 3rd Edition, Pearson, New Jersey.
- Kotler P. and Keller, K.L. (Latest Edition), Marketing Management, Prentice Hall, New Jersey.
- Baltas, G. and Repousis, P. (2018), Business Analytics and Quantitative Models in Marketing and the Internet, 2nd edition, Rosili, Athens.

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53102 **SEMESTER** 1st
COURSE TITLE	**ADVANCED QUANTITATIVE CONSUMER RESEARCH**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	*SPECIAL BACKGROUND, SPECIALISED GENERAL KNOWLEDGE*
PREREQUISITE COURSES:	None
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.   *Consult Appendix A*   • *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*   • *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*   • *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to:

- *Develop a deep knowledge of the content of advanced quantitative consumer research methods.*
- *Critically identify and understand the similarities and differences of advanced quantitative consumer research methods.*
- *Creatively link marketing management with consumer behavior and advanced quantitative research methods.*

- *Critically evaluate advanced quantitative research methods and select the advanced quantitative consumer research method that best fits the decision problem they face as executives.*
- *Validly apply the advanced method of quantitative consumer research they have chosen in all its stages from planning to analyzing the data and drawing conclusions and recommendations.*

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Decision-making

Working independently

Production of new research ideas

Production of free, creative and inductive thinking

3. SYLLABUS

As the complexity of the problems faced by business executives increases, so does the need for information about the environment, the competition and especially about consumers/customers that will help in following an evidence-based decision making. As a business executive, students will need to come into frequent contact with consumer data and analytics tools throughout their career.

This specific course is designed in such a way that students acquire the necessary knowledge and skills that will allow them to be effective and intelligent users of advanced quantitative consumer research tools.

The purpose of this specific course is to introduce students to advanced quantitative consumer research methods that will allow them to investigate behaviors and preferences in depth. The course covers topics such as experimental design and analysis of experimental data, research methods for market segmentation and analysis of their data, methods for evaluating product attributes and analysis of their data, methods for measuring brand image and positioning and analysis of their data and special consumer research topics. Particular emphasis will be placed on linking advanced quantitative consumer research methods to decision making through the use of applicable case studies from real business environments. An equally important purpose is to give students the opportunity to develop

their own skills in the use of relevant software packages (eg, SPSS) that enable the analysis of consumer data.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	*Face-to-face*
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*Use of ICT in teaching and in communication with students*

TEACHING METHODS	
The manner and methods of teaching are described in detail. *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	(see table below)

Activity	Semester workload
Lectures	21
Study and analysis of bibliography	15
Independent non-directed study and test practice of the advanced quantitative consumer analysis methods	40
Independent non-directed study related to module concepts	14
Performing assignment analyses	40
Analysis report writing	20
Course total	**150**

STUDENT PERFORMANCE EVALUATION	
Description of the evaluation procedure *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	**Formative Assessment** Short quizzes and multiple-choice review questions based on the previous week's lecture as well as questions for students to prepare at home in the form of homework are discussed at the beginning of each lesson clarifying any questions and understanding issues. **Summative Assessment** 3-hour written exam with open-ended and problem-solving questions (70% weightage) Individual work in the form of a written analytical report (weight 30% There are clearly defined assessment criteria. They are clearly stated from the beginning of the year in multiple ways such as 1) uploaded on the eclass platform , 2) included in the module syllabus and 3) mentioned explicitly in dedicated slides of the first lecture. Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

1)	Επιχειρησιακή Αναλυτική και Ποσοτικά Υποδείγματα Μάρκετινγκ και Διαδικτύου (2018), Μπάλτας και Ρεπούσης, Rosili, 2η Βελτιωμένη Έκδοση, (M&P)

2)	Multivariate Data Analysis (2014) Hair Jr., Black, Babin and Anderson, Pearson Education Limited, 7th International Edition (H et al)

3)	Discovering Statistics Using IBM SPSS (2018) Field, Sage, 5th edition (F)

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm5303 **SEMESTER** 1st
COURSE TITLE	**QUANTITATIVE MARKETING MODELS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described. *Consult Appendix A*   • *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*   • *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*   • *Guidelines for writing Learning Outcomes*
Upon completion of the course, students will be able to understand the: Choice, specification and implementation of both basic and advanced quantitative models in marketing data.

General Competences
Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*

Production of new research ideas	Others… …….

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Team work

Working in an interdisciplinary environment

Production of new research ideas

3. SYLLABUS

Students are introduced to the area of quantitative models with emphasis on microeconometric models and their marketing applications. Quantitative models for different types of dependent variables such continuous, ordinal, qualitative and limited dependent variables. Panel data models. Selection, specification and estimation of quantitative models in marketing data.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Yes.
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><td>**Activity**</td><td>**Semester workload**</td></tr><tr><td>Lectures</td><td>80</td></tr><tr><td>Laboratory practice</td><td>70</td></tr><tr><td>**Total**</td><td>150</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory*	Written exam paper Essay/report Language of evaluation: Greek and/or English

work, clinical examination of patient, art interpretation, other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	

5. ATTACHED BIBLIOGRAPHY

Gary L. Lilien, Arvind Rangaswamy & Arnaud De Bruyn (2017). Principles of Marketing Engineering and Analytics.

Baltas, G. & Repousis, P. (2019). Business analytics and quantitative marketing models. 2nd Edition. Rosili publications, Athens.

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53104 **SEMESTER** 1st
COURSE TITLE	**DIGITAL MARKETING ANALYTICS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	*specialised general knowledge*
PREREQUISITE COURSES:	No
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.
Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to understand and leverage key strategic and performance indicators and in parallel analyze web site traffic and digital advertising campaign data to undertake effective and efficient managerial decisions. Additionally, they will have understood the main features and capabilities of digital marketing channels and tools.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
	Respect for the natural environment

Decision-making	Showing social, professional and ethical responsibility and sensitivity to gender issues
Working independently	
Team work	Criticism and self-criticism
Working in an international environment	Production of free, creative and inductive thinking
Working in an interdisciplinary environment	……
Production of new research ideas	Others…
	…….

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Decision-making

Working independently

Teamwork

Project planning and management

Production of free, creative and inductive thinking

3. SYLLABUS

- (a) introduction to web analytics,
- (b) marketing strategy in the digital age,
- (c) digital advertising campaigns and performance-based marketing,
- (d) corporate presence on social networks and analysis of interaction with digital followers.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	*Face-to-face*
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*Use of ICT in teaching, communication with students (e-class, ppt, demonstration of digital marketing tools & platforms)*
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><td>***Activity***</td><td>***Semester workload***</td></tr><tr><td>Lectures</td><td>21</td></tr><tr><td>Study and analysis of bibliography</td><td>125</td></tr><tr><td>Case studies</td><td>4</td></tr><tr><td>Total</td><td>***150***</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice*	Students are evaluated through final written exams with open-ended questions and problem-solving subjects. The assessment criteria are accessible to students via e-class. Language of evaluation: Greek and/or English

questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	

5. ATTACHED BIBLIOGRAPHY

Marketing Metrics 2022, Leverage Analytics and Data to Optimize Marketing Strategies, Christina Inge,Kogan Page Ltd

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53105 **SEMESTER** 2nd
COURSE TITLE	**SOCIAL MEDIA MARKETING ANALYTICS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	*specialised general knowledge*
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.
Consult Appendix A
- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to:

Utilize social media platforms and other digital media for marketing applications, effectively promoting content and campaigns.

Analyze and interpret data from digital media, including the assessment and interpretation of campaign results.

Engage with tools for automatic data collection from various online sources, aiding in modeling and monitoring the reputation of companies or specific products (brand monitoring, mentioning, and social listening).

Apply methods for analyzing the structure of social networks, such as user grouping based on common characteristics, trend identification, modeling content dissemination in the network, and locating key influential users.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Working independently	
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others...*
	....

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Working independently

3. SYLLABUS

The purpose of the course is to train on the utilization of social media and other digital media for marketing applications, as well as on techniques for analyzing data from digital media. Trainees will learn to use digital platforms and channels for promoting content, as well as to evaluate and interpret the results of promotional campaigns. Emphasis will be given to modern popular platforms (e.g., Facebook, Twitter, YouTube, etc.). Trainees will also be exposed to tools for the automatic collection of data from various online sources, aiming at modeling and monitoring the reputation of a company or a specific product (brand monitoring, mentioning, and social listening). Finally, students will be exposed to methods for analyzing the structure of a social network, in the context of practical applications, such as grouping users with common characteristics, identifying trends and modeling their dissemination in the network, as well as locating key users with a broad range of influence.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Distance learning
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Python programming language, use of analytics tools from major social networking platforms.

TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice,*	Activity	Semester workload
	Lectures	80
	Essay writing	70

fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	Total		150	

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Students are assessed through multiple assignments (homeworks). Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

All the necessary material is provided to the students within the course through notes and access to free online resources

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53106 **SEMESTER** 2nd
COURSE TITLE	**ANALYTICS FOR MARKETING DECISIONS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to understand the:

Understanding of Operational Research and Decision Making: Students are expected to understand the basic concept and importance of operational research and decision-making in the field of marketing.

Development of Mathematical Models and Algorithms: Development of skills in creating and applying quantitative tools, algorithms and mathematical models to solve marketing decision problems.

Application of Algorithms and Data Analysis Tools: Learning to use various algorithms and tools for data analysis and processing, aiming at optimizing decision-making.

Understanding the Decision-Making Process in Marketing: Gaining a deep understanding of the

decision-making process and its application in practical marketing problems.

Study of Industry Cases in Marketing: Examining use cases in marketing, such as the allocation of advertising budgets, pricing, networks, assignment, and coverage.

Linear and Integer Programming: Gaining knowledge and skills in techniques such as linear and integer programming.

Use of Decision Trees and Stochastic Models: Learning to use decision trees for analyzing stochastic problems and multi-criteria optimization.

Application of Simulation Models: Developing skills in the application of simulation models for the evaluation and simulation of various marketing scenarios.

Use of Software and Analysis Tools: Learning and applying various software tools for data analysis and decision-making.

These learning outcomes will equip students with the necessary knowledge and skills for effective decision-making in the field of marketing, using advanced analytical methods.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender*
Working independently	*issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others…*
	....

3. SYLLABUS

The course 'Analytics for Marketing Decisions' introduces students to operational research and decision making. It focuses on creating quantitative methods, mathematical models, algorithms, and other tools aimed at well-informed, data-driven decision making. The course presents the decision-making process and its application to marketing problems, such as issues related to the allocation of advertising budgets across multiple channels, pricing, assignment, and network coverage. It examines linear and integer programming models, decision trees for stochastic problems, multi-criteria optimization, and simulation models. The course utilizes various software tools.

Modules:
- Introduction to Operational Research
- Linear Programming and Sensitivity Analysis
- Non-linear and Integer Programming
- Decision Trees
- Pricing
- Special Topics

- Mathematical Programming with Python

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	**Programming in Python, RapidMinner and Microsoft Excel**
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><th>*Activity*</th><th>*Semester workload*</th></tr><tr><td>Lectures</td><td>50</td></tr><tr><td>Lab practice</td><td>20</td></tr><tr><td>Literature study</td><td>40</td></tr><tr><td>Project</td><td>40</td></tr><tr><td>Total</td><td>150</td></tr><tr><td></td><td></td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Written exam. Multiple choice questionnaires, short-answer questions, open-ended questions, and problem solving. Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

"Introduction to operations research" by Frederick S Hillier, Gerald J Lieberman, 10th edition, McGraw-Hill, 2015.

"Model Building in Mathematical Programming" by H. Paul Williams, 5th Edition, Wiley, 2013.

"Marketing Analytics" by W. L. Winston, Wiley, 2014.

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	**bm53107** **SEMESTER** 2nd
COURSE TITLE	**ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING WITH MARKETING APPLICATIONS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialised general knowledge
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described. *Consult Appendix A* *1. Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area* *2. Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B* *3. Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to:

- *Identify (comprehension) the basic concepts of Artificial Intelligence and Machine Learning*
- *Comprehend (comprehension) the basic principles of Neural Networks*
- *Use (application) Neural Networks in prediction and classification problems (e.g. predicting Customer Churn)*
- *Apply (application) the different Recommendation techniques*
- *Evaluate (evaluation) market reaction to marketing actions*

- *Solve (application) the problem of new product design with optimization algorithms*

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others...*
	....

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Decision-making

Working independently

Production of new research ideas

Project planning and management

3. SYLLABUS

1. Introduction to Artificial Intelligence and Machine Learning
2. Artificial Neural Networks
3. Predictive analytics
4. Prompt engineering
5. Recommender Systems
6. Market Simulation
7. New product design

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	*Distance learning*
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*In teaching, using a synchronous distance learning platform* *In teaching, using computational models* *In communication with students, through the e-class online platform*
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.*	<table><tr><td>*Activity*</td><td>*Semester workload*</td></tr><tr><td>*Lectures*</td><td>21</td></tr><tr><td>*Project*</td><td>40</td></tr><tr><td>*Study and analysis of bibliography*</td><td>89</td></tr><tr><td>Total</td><td>150</td></tr></table>

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Implementation of a project on solving a problem with machine learning methods. Submission of a written report Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

Malhotra N.K., Sudhir, K. and Toubia, O. (Ed.) (2023), *Artificial Intelligence in Marketing (Review of Marketing Research, Vol. 20)*, Emerald Publishing Limited, Bingley, pp. i-xxiii.

Pradeep A.K., Appel Andrew, Sthanunathan Stan (2019), *AI for Marketing and Product Innovation*, Wiley.

Sterne, J. (2017). *Artificial intelligence for marketing: Practical applications.* John Wiley & Sons

Syam, N., and Kaul, R. (2021). *Machine Learning and Artificial Intelligence in Marketing and Sales: Essential Reference for Practitioners and Data Scientists.* Bingley: Emerald Publishing Limited.

Venkatesan, R. and Lecinski, J. (2021), *The AI Marketing Canvas: A Five-Stage Road Map to Implementing Artificial Intelligence in Marketing*, Stanford University Press, Stanford, California.

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Liye Ma, Baohong Sun, 2020, Machine learning and AI in marketing – Connecting computing power to human insights, *International Journal of Research in Marketing, Volume 37, Issue 3*, Pages 481-504, ISSN 0167-8116, https://doi.org/10.1016/j.ijresmar.2020.04.005

Eric W.T. Ngai, Yuanyuan Wu, 2022, Machine learning in marketing: A literature review, conceptual framework, and research agenda, *Journal of Business Research, Volume 145*, Pages 35-48, ISSN 0148-2963, https://doi.org/10.1016/j.jbusres.2022.02.049

Huang, MH., Rust, R.T. (2021). A strategic framework for artificial intelligence in marketing. J. of the Acad. Mark. Sci. 49, 30–50 https://doi.org/10.1007/s11747-020-00749-9

Božidar Vlačić, Leonardo Corbo, Susana Costa e Silva, Marina Dabić, 2021, The evolving role of artificial intelligence in marketing: A review and research agenda, Journal of Business Research, Volume 128, Pages 187-203, ISSN 0148-2963, https://doi.org/10.1016/j.jbusres.2021.01.055

Gioia Volkmar, Peter M. Fischer, Sven Reinecke, 2022, Artificial Intelligence and Machine Learning: Exploring drivers, barriers, and future developments in marketing management, Journal of Business Research, Volume 149, Pages 599-614, ISSN 0148-2963, https://doi.org/10.1016/j.jbusres.2022.04.007

Abid Haleem, Mohd Javaid, Mohd Asim Qadri, Ravi Pratap Singh, Rajiv Suman, 2022, Artificial intelligence (AI) applications for marketing: A literature-based study, International Journal of Intelligent Networks, Volume 3, Pages 119-132, ISSN 2666-6030, https://doi.org/10.1016/j.ijin.2022.08.005

Mekhail Mustak, Joni Salminen, Loïc Plé, Jochen Wirtz, 2021, Artificial intelligence in marketing: Topic modeling, scientometric analysis, and research agenda, Journal of Business Research, Volume 124, Pages 389-404, ISSN 0148-2963, https://doi.org/10.1016/j.jbusres.2020.10.044

Arnaud De Bruyn, Vijay Viswanathan, Yean Shan Beh, Jürgen Kai-Uwe Brock, Florian von Wangenheim, 2020, Artificial Intelligence and Marketing: Pitfalls and Opportunities, Journal of Interactive Marketing, Volume 51, Pages 91-105, ISSN 1094-9968, https://doi.org/10.1016/j.intmar.2020.04.007

Colin Campbell, Sean Sands, Carla Ferraro, Hsiu-Yuan (Jody) Tsao, Alexis Mavrommatis, 2020, From data to action: How marketers can leverage AI, Business Horizons, Volume 63, Issue 2, Pages 227-243, ISSN 0007-6813, https://doi.org/10.1016/j.bushor.2019.12.002

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53108 **SEMESTER** 2nd
COURSE TITLE	**TEXT ANALYTICS AND WEB MINING FOR MARKETING**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described. *Consult Appendix A*   • *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*   • *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*   • *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to:

Analyze data from the World Wide Web and social networks, particularly text data.

Manage typical examples of text data, such as customer and expert reviews, comments on social media, blogs, news articles, and product descriptions in e-commerce.

Perform all stages of text data management, from collection (web scraping), preparation (clearing and parsing), to analysis.

Use Python to address practical problems related to text data, such as sentiment analysis,

classification, topic modeling, summarization, and entity processing (entity extraction and disambiguation).

General Competences
Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Working independently	
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology

- Working independently

3. SYLLABUS

The course aims to equip students with the knowledge and skills required to analyze data from the World Wide Web and social networks, specifically focusing on text data processing. Examples of text data include customer and expert reviews, user comments on social media platforms, blogs, news articles, and product descriptions on e-commerce websites. The course covers all stages of the process that must be completed by someone wishing to work with text data: collection from the web (web scraping), preparation (clearing and parsing), and analysis. Through the course, students will learn how to use Python to solve practical problems related to text data, such as sentiment analysis, classification, topic modeling, summarization, and entity processing (entity extraction and disambiguation).

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Distance learning
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	**YES** **Python programming language, libraries for text mining and data mining**
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity,*	<table><tr><td>*Activity*</td><td>*Semester workload*</td></tr><tr><td>Lectures</td><td>80</td></tr><tr><td>Essay writing</td><td>70</td></tr><tr><td>Total</td><td>*150*</td></tr></table>

etc. *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Students are assessed through multiple assignments (homeworks) based on: * Programming with the Python language * Algorithms and analytical techniques related to the course material. Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

All the necessary material is provided to the students within the course through notes and access to free online resources

STUDY GUIDE
ACAD.YEAR 2022-2023

ELECTIVE COURSES

1. **GENERAL**

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53201 **SEMESTER** 2nd
COURSE TITLE	MULTIVARIATE ANALYSIS WITH MARKETING APPLICATIONS

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	*General background*
PREREQUISITE COURSES:	None
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. **LEARNING OUTCOMES**

Learning outcomes *The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.* *Consult Appendix A*   • *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*   • *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*   • *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to:

- *Develop a deep knowledge of the content of multivariate analyses.*
- *Critically identify and understand the similarities and differences of the various multivariate analyses.*
- *Creatively link marketing management with multivariate analyses.*
- *Critically evaluate multivariate analyses and select the one that best fits the decision problem*

> *they face and the data they have available as executives.*
> - *Validly apply the multivariate analysis they have and draw conclusions and recommendations for evidence-based decision making..*

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender*
Working independently	*issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others…*
	....

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Decision-making

Working independently

Production of new research ideas

Production of free, creative and inductive thinking

3. SYLLABUS

Consumer decisions are the result of a combination of many influencing factors with complex relationships among them. For a marketing executives to gain an understanding of how these decisions are shaped in order to be able to influence and predict them, they need to use data that will be analyzed using multivariate techniques. Although statistical science has produced a wealth of multivariate analyses, their application in marketing is not that common, especially by executives.

The purpose of the course is to provide a deep understanding of multivariate analyses applied in the field of marketing, as they must be an important part of daily management practice at both a tactical and a strategic level. The course places special emphasis on how multivariate analyzes lead to evidence-based marketing decisions. The course covers a wide range of multivariate analyses, such as Mediation and Moderation analysis, MANOVA, Discriminant Analysis, Canonical analysis, Factor Analysis, Cluster Analysis, Multidimensional Scaling.

Particular emphasis will be placed on linking advanced quantitative consumer research methods to decision making through the use of applicable case studies from real business environments. An equally important purpose is to give students the opportunity to develop their own skills in the use of relevant software packages (eg, SPSS) that enable the analysis of consumer data.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	*Face-to-face*
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*Use of ICT in teaching and in communication with students*

TEACHING METHODS

The manner and methods of teaching are described in detail.

Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

Activity	Semester workload	
Lectures	21	
Study and analysis of bibliography	15	
Independent non-directed study and test practice of the various multivariate analyses	40	
Independent non-directed study related to module concepts	14	
Performing assignment analyses	40	
Analysis report writing	20	
Total	**150**	

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Formative Assessment

Short quizzes and multiple-choice review questions based on the previous week's lecture as well as questions for students to prepare at home in the form of homework are discussed at the beginning of each lesson clarifying any questions and understanding issues.

Summative Assessment

3-hour written exam with open-ended and problem-solving questions (70% weightage)

Individual work in the form of a written analytical report (weight 30%

There are clearly defined assessment criteria. They are clearly stated from the beginning of the year in multiple ways such as 1) uploaded on the eclass platform , 2) included in the module syllabus and 3) mentioned explicitly in dedicated slides of the first lecture.

Language of evaluation: Greek and/or English

5. **ATTACHED BIBLIOGRAPHY**

1)   Επιχειρησιακή Αναλυτική και Ποσοτικά Υποδείγματα Μάρκετινγκ και Διαδικτύου (2018) Μπάλτας και Ρεπούσης, Rosili, 2η Βελτιωμένη Έκδοση, (M&P)

2)   An introduction to mediation, moderation, and conditional process analysis: A regression-based approach (2018) Hayes, A.F. New York: Guilford (2nd Ed.) (H)

3)   Multivariate Data Analysis (2014) Hair Jr., Black, Babin and Anderson, Pearson Education Limited, 7th International Edition (H et al)

4)   Discovering Statistics Using IBM SPSS (2018) Field, Sage, 5th edition (F)

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53202 **SEMESTER** 2nd
COURSE TITLE	**QUANTITATIVE MARKETING MODELS**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special background
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.
Consult Appendix A
- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to understand the:
Understand consumer behavior using classical and contemporary theoretical and explanatory frameworks.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	Project planning and management
Adapting to new situations	Respect for difference and multiculturalism
Decision-making	Respect for the natural environment
Working independently	Showing social, professional and ethical responsibility and sensitivity to gender issues

Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others…*
	....

Adapting to new situations

Decision-making

Working independently

Team work

Working in an interdisciplinary environment

Production of new research ideas

3. SYLLABUS

Understanding consumer behavior and buying process. Classical consumer theory, bounded rationality, cognitive biases, behavioral science, evolutionary psychology, neuroscience in consumer behavior.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Distance learning
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	**Yes.**
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><td align="center">***Activity***</td><td align="center">***Semester workload***</td></tr><tr><td>Lectures</td><td align="center">80</td></tr><tr><td>Interactive teaching</td><td align="center">70</td></tr><tr><td>Total</td><td align="center">150</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other*	Written exam paper Essay/report Language of evaluation: Greek and/or English Specifically-defined evaluation criteria accessible through the eclass platform

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.	

5. ATTACHED BIBLIOGRAPHY

Baltas, G. & Papastathopoulou, P. 2021. Consumer behavior. 3nd Edition. Rosili publications, Athens.

Solomon, M. R. (2019), Consumer Behavior: Buying, Having and Being, 13th Edition, Prentice-Hall.

Schiff man, L. & Kanuk, L. (2019), Consumer Behavior, 12th edition, Prentice Hall

STUDY GUIDE
ACAD.YEAR 2022-2023

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	bm53203 **SEMESTER** 2nd
COURSE TITLE	**ADVANCED PRODUCT AND BRAND MANAGEMENT**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*		**WEEKLY TEACHING HOURS**	**CREDITS**
	LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.
Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of this course, students will have acquired new knowledge about the following topic areas of product and brand management and their managerial implications:

- Fundamentals of product management.
- Taxonomies of products
- Product mix.
- Product line.
- Technical characteristics of the product.
- Product quality.
- Product style.
- Packaging.
- Intangible characteristics of the product.
- Fundamentals of product branding and logos.
- Evolution in the significance of product branding and logos to the firm and the customer.
- Development of sustainable branding and logo strategy for the product.
- Fundamentals of new product development.
- The role of innovation in the success of new product development.
- The steps of the new product development process.
- Fundamentals of product line pruning.
- Product Life Cycle and product line pruning.
- The product elimination decision-making process.
- Models for optimal assortment variety on the shelf of retail stores.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
	Respect for the natural environment
Adapting to new situations	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Decision-making	
Working independently	*Criticism and self-criticism*
Team work	*Production of free, creative and inductive thinking*
Working in an international environment	*......*
Working in an interdisciplinary environment	*Others…*
	…….
Production of new research ideas	

- Adapting to new situations
- Decision-making
- Production of new research ideas

- Respect for difference and multiculturalism
- Production of free, creative and inductive thinking

3. SYLLABUS

- Fundamentals of product and brand management.
- Types of product decisions.
- Branding.
- New product development.
- Product line pruning.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	*Face-to-face*
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*Use of ICT in teaching* *Use of ICT in communication with students*

| **TEACHING METHODS**
The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS | |

Activity	*Semester workload*
Lectures	105
Study and analysis of bibliography	22,5
Practical applications and cases studies	22,5
Total	150

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure*	• *Language of evaluation: Greek and/or English* • *Method of evaluation: written exam, using essay type questions.*

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	• *Evaluative criteria: a successful exam paper involves answering the exam questions in a way that proves students' ability to apply theory to strategic and tactical product and brand management problems facing the firm. The evaluative criteria are communicated to students in the introductory session of this course.*

5. ATTACHED BIBLIOGRAPHY

Following standard academic practice, the theoretical leg of this course is premised entirely on material that has been published in premier journal outlets of the disciplines of Marketing and Management. For example:

• Avlonitis, G.J. (1985). "The techno-economic ecology of the product elimination process". *International Journal of Research in Marketing*, Vol. 2, No. 3, pp. 175–184.
• Broniarczyk, S.M., Hoyer, W.D. and McAlister, L. (1998). "Consumers' perceptions of the assortment offered in a grocery category: The impact of item reduction", *Journal of Marketing Research*, Vol. 35, No. 2, pp. 166–176.
• Chen L., Zhang P., Li. S. and Turner, S.F. (2022). "Growing pains: The effect of generational product innovation on mobile games performance", *Strategic Management Journal*, Vol. 43, No. 4, pp. 792-821.
• Eisend, M., Hartmann, P. and Apaolaza, V. (2017). "Who buys counterfeit luxury brands? A meta-analytic synthesis of consumers in developing and developed markets", *Journal of International Marketing*, Vol. 25, No. 4, pp. 89-111.
• Fajardo, T. M., Zhang, J. and Tsiros M. (2016). "The contingent nature of the symbolic associations of visual design elements: The case of brand logo frames," *Journal of Consumer Research*, Vol. 43, December, pp. 549–566.
• Kovalenko, L., Sorescu, A. and Houston, M.B. (2022). "What brand do I use for my new product? The impact of new product branding decisions on firm value", *Journal of the Academy of Marketing Science*, Vol. 50, No. 2, pp. 338–365.

- Loveland, K. E., Smeethers, D., & Mandel, N. (2010), "Still preoccupied with 1995: The need to belong and preference for nostalgic products", *Journal of Consumer Research*, Vol. 37, No. 3, pp. 393-408.
- Melzner, J. an Raghubir, P. (2023). "EXPRESS: The sound of music: The effect of timbral sound quality in audio logos on brand personality perception", *Journal of Marketing Research*, forthcoming.
- Sevilla, J. and Kahn, B.E. (2014), "The completeness heuristic: Product shape completeness influences size perceptions, preference and consumption", *Journal of Marketing Research*, Vol. 51, No. 1, pp. 57-68.
- Thompson, D. V., Hamilton, R. W., & Rust, R. T. (2005). "Feature fatigue: When product capabilities become too much of a good thing", *Journal of Marketing Research*, Vol. 42, No. 4, pp. 431–442.
- Zhou, K., Ye, X. & Ye, J. (2021), "Longing for the past and embracing the new: Does nostalgia increase new product adoption?", *Marketing Letters*, Vol. 32, pp. 477-498.

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)
COURSE CODE	**bm53204** **SEMESTER** **2st**
COURSE TITLE	**ADVANCED DIGITAL ANALYTICS & OPTIMIZATION**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
LECTURES	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge
PREREQUISITE COURSES:	No
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/el/marketinganalytics/content/programmaspoudon

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.
Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course, students will be able to:

measure return on investment (ROI), the value of customers to a business over time, the effectiveness of a marketing campaign, and then be able to recommend relevant optimization strategies per marketing channel.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
	Respect for difference and multiculturalism
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender*

Working independently	issues
Team work	Criticism and self-criticism
Working in an international environment	Production of free, creative and inductive thinking
Working in an interdisciplinary environment	……
Production of new research ideas	Others…
	……

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Team work

Production of new research ideas

Project planning and management

Criticism and self-criticism

Production of free, creative and inductive thinking

3. SYLLABUS

The course, among others, includes the following topics: (a) Return-On-Investment (ROI) & Return-On-Advertising-Spend (ROAS), (b) Customer Lifetime Value (CLTV), (c) digital advertising campaigns optimization, (d) A/B testing as well as (e) attribution models. Students will also be exposed to the use of various commercial tools to optimize advertising campaigns in different channels for search, social, programmatic, etc.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	**Use of ICT in teaching, communication with students (e-class, ppt, demonstration of digital marketing tools & platforms)**
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><td>*Activity*</td><td>*Semester workload*</td></tr><tr><td>Lectures</td><td>21</td></tr><tr><td>Study and analysis of bibliography</td><td>105</td></tr><tr><td>Case studies</td><td>4</td></tr><tr><td>laboratory practice</td><td>20</td></tr><tr><td>Total</td><td>150</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure*	Students are evaluated through final written exams with open-ended questions and problem-solving subjects. The assessment criteria are accessible to students via e-class.

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other	
Specifically-defined evaluation criteria are given, and if and where they are accessible to students.	

5. ATTACHED BIBLIOGRAPHY

Marketing Metrics 2022, Leverage Analytics and Data to Optimize Marketing Strategies, Christina Inge,Kogan Page Ltd

Marketing Analytics, A Practical Guide to Improving Consumer Insights Using Data Techniques, Mike Grigsby, EAN: 9781398608191, Edition: 3

STUDY GUIDE
ACAD.YEAR 2022-2023

MASTER THESIS

1. GENERAL

SCHOOL	SCHOOL OF BUSINESS		
ACADEMIC UNIT	DEPARTMENT OF MARKETING & COMMUNICATION		
LEVEL OF STUDIES	POSTGRADUATE (2nd CYCLE)		
COURSE CODE	bm53109	SEMESTER	3rd
COURSE TITLE	**MASTER THESIS**		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
		30
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge	
PREREQUISITE COURSES:	none	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek and/or English	
IS THE COURSE OFFERED TO ERASMUS STUDENTS	no	
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/marketinganalytics/content/programme-structure	

2. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A
- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The thesis aims to:
- provide an opportunity to explore in depth a particular topic and put into practice theories and concepts learned on the Program;

- enable interaction with faculty members, which is important for the evaluation of the student's capabilities
- provide the students invaluable knowledge on the undertaking of a scientific research which will be of use to them in both a professional or academic career.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Working in an international environment
Criticism and self-criticism
Production of free, creative, and inductive thinking

3. SYLLABUS

Introduction. Includes a summary of the issue/problem and a detailed presentation of how it was approached.

Literature review. Provide the information needed regarding the existing knowledge and theory on the subject. Allow the student to (a) identify the gap in the existing knowledge, (b) develop and support the research questions or research hypotheses, and (c) convince the reader for the contribution of the paper both theoretically and practically.

Methodology. Presentation in a clear and comprehensive way the research methods, the data collection tool, the sampling methodology, the sample size and the way of measuring both dependent and independent variables.

Analysis. Includes the data analysis, in a thorough and scientifically documented way, based on the use and description of the appropriate data analysis tools depending on the kind of primary data (qualitative or quantitative).

Discussion & Conclusions. Presentation of (a) the findings of their research and compare them with current theory and previous studies, (b) the practical importance of the findings for the selected industry or business, (c) the summary of the research limitations and (d) suggestions for further research.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face or remote meetings between the supervisor and the student
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Contact with students: e-class / MS Teams
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><td>*Activity*</td><td>*Semester workload*</td></tr><tr><td>Research</td><td>200</td></tr><tr><td>study and analysis of bibliography</td><td>200</td></tr><tr><td>Writing the master thesis</td><td>350</td></tr><tr><td>Course total</td><td>***750***</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The evaluation of the master thesis is based on strict scientific criteria, regarding its originality, its analytical depth, its synthesis and its quality. It is presented to and graded by a 3-member Committee consisting of the supervisor and two examiners. The evaluation criteria and all other information regarding the master thesis can be found in the Master Thesis Preparation Guide that is sent to students at the end of their first semester of studies. Language of evaluation: Greek and/or English

5. ATTACHED BIBLIOGRAPHY

The suggested bibliography depends on the topic of the thesis

PART III: STUDENT INFORMATION

General STUDENT Information

The Athens University of Economics and Business provides not only high-quality education but also high-quality student services. The adoption of the Presidential Decree 387/83 and Law 1404/83 defines the operation, organization, and administration of Student Clubs at Universities, which aim at improving the living conditions of the students and enhance their social and intellectual wellbeing through engagement and socialization initiatives.

To fulfill this objective the University ensures the required infrastructure for housing, meals, and sports activities through the operation of a student restaurant, reading rooms, library, organization of lectures, concerts, theatrical performances, and excursions in Greece and abroad. Further in this context, the University supports the development of international student relations, organizes foreign language classes, computer/software literacy classes, and courses in modern Greek as a foreign language for foreign students and expatriated Greek students.

Detailed information on meals, housing, fitness, foreign languages, cultural activities, scholarships, financial aid, is provided on the website of AUEB's Student Club at https://lesxi.aueb.gr/

Electronic Services

A significant number of procedures related to both attendance and student care are carried out electronically through applications of the University or the Ministry of Education and Religious Affairs. All applications are accessible with the same codes (username & password).

- **E-mail account:**
Detailed instructions for using the Webmail Service are provided at https://www.aueb.gr/el/content/webmail-manual
- **Electronic Secretariat (Student Register)**
The Electronic Secretariat application is the information system through which students can be served by the Department's Secretariat via the web.
- **Wireless network**
Using their personal codes, students have access to a wireless network in all areas of the Athens University of Economics and Business buildings/campus. WiFi instructions
- **E-Learning Platform – ECLASS**
The Open eClass platform is an integrated Electronic Course Management System and is the proposal of the Academic Internet (GUnet) to support Asynchronous Distance Education Services.
Instructions are provided at https://eclass.aueb.gr/info/manual.php

Medical Services, Insurance / Healthcare

Undergraduate, postgraduate and PhD students at the University who have no other medical and hospital care are entitled to full medical and hospital care in the National Health System with coverage of the relevant costs by the National Health Service Provider. A psychiatric counseling service also operates at the University, staffed with a physician specializing in the treatment of mental health issues.
More information at https://www.aueb.gr/en/content/health-care .

Services/Facilities to Students with Special Needs

The Athens University of Economics and Business ensures the facilitation of students with special needs, through the design, implementation, and environmental adaptations, for access to the university building facilities. In the main building there are specially configured lifting machines, ramps, and elevators. There are also special regulations for conducting exams for students with special needs.
The Athens University of Economics and Business has established a Committee for Equal Access for people with disabilities and people with special educational needs. The Commission is an advisory body and submits recommendations to the competent bodies for the formulation and implementation of the policy of equal access for persons with disabilities and persons with special educational needs.

Through the Library services, students with physical disabilities are granted electronic access to the recommended Greek bibliography of the courses taught at the University. In this context, the Association of Greek Academic Libraries (SEAB) has developed a multimodal electronic library called AMELib.
More information is available at https://www.aueb.gr/el/lib/content/amea-atoma-me-idiateires-anages.

Studies Advisor

According to article 12 of the Graduate and Doctoral Studies Regulations (FEK3140/B′/12-5-2023) the programme assigns a personal tutor to each student throughout the studies. Personal tutors provide directions and mentoring to their assigned students about aspects of their studies such as modules, course contents, choosing a master thesis, the programme's infrastructure and services, etc. Students can meet their personal tutors on days and hours that are announced by the tutors.

Library and Study Rooms

The Library & Information Center of the University operates at the University's main building. The AUEB Library is a member of the Hellenic Academic Libraries Association (Heal-LINK), the European Documentation Centers Europe Direct and the Economic Libraries Cooperation Network (DIOBI).

Three Documentation Centers operate within the library:
- The European Documentation Center
- The Organization for Economic Cooperation and Development (OECD) Documentation Center
- The Delegation Center of the World Tourism Organization (WHO)

The library contributes substantially both to meeting the needs for scientific information of the academic community and to supporting studying and research. The library provides access to:
- printed collection of books and scientific journals,
- course books used in modules,
- collection of electronic scientific journals& books
- postgraduate theses and doctoral theses that are produced in Athens University of Economics and Business and deposited in digital form at the PYXIDA institutional repository
- sectoral studies
- statistical series by national and international organizations
- audiovisual material
- information material (encyclopedias, dictionaries)
- databases on the topics used by the University
- printed collections of other academic libraries

The library lends all its printed collections, except for magazines and statistical series, in accordance with its internal rules of operation. The Library and Information Center offers reading rooms, computer workstations for visitors, photocopiers and printing machines, and interlibrary loan of books and journal articles from other academic libraries that are members of its network. More information at https://www.aueb.gr/en/library .

International Programs and Information on International Student Mobility

Athens University of Economics and Business is actively involved in the Erasmus+ Program since 1987 promoting cooperation with universities, businesses, and international organizations of the European Union (EU) as well as in the mobility of students, teaching, and administrative staff.

In addition, strengthening its internationalization objectives, it creates new opportunities through the Erasmus+ International Mobility Program. Within this framework, mobility scholarships are granted through the State Scholarships Foundation (SSF) to incoming and outgoing students of the three study cycles, according to the funding approved each year by the State Scholarship Foundation for the University. Outgoing students have the possibility to spend a period of study at a Partner Institution outside the EU with full academic recognition through the application of the ECTS credits system https://www.aueb.gr/en/content/erasmus-programme

Connecting with the Job Market and Entrepreneurship

D.A.STA.O.P.A. (https://www.aueb.gr/el/dasta) is the administrative unit of the University that plans, coordinates and implements the actions of the Athens University of Economics and Business in the following areas:

a) development of entrepreneurship and innovation

b) connecting students and graduates with the labor market

c) connecting the academic community with businesses

d) student internship programs and,

e) supporting research utilization actions

Student Associations

Various student clubs and associations are active within the community of the Athens University of Economics and Business (https://www.aueb.gr/el/content/student-associations).

Alumni Network

Adhering to a long tradition of educating future top executives in the economic, social, and political life of the country, AUEB is proud that thousands of its graduates hold leading positions in companies, organizations, research institutes and universities in Greece and abroad. Understanding the importance of developing and strengthening the bond with its graduates, AUEB created its Alumni network including a platform https://alumni.aueb.gr where all graduates of the University can register. The main objectives of the Network are the connection of the graduates with their colleagues and former fellow students, and diffusion of information about activities, services, and events in and around the University that concern them.
Additional information on Clubs and Alumni Associations is available on the website https://www.aueb.gr/el/content/organizations-and-associations-of-students-and-alumni.

Volunteer Program

 Within the framework of its strategies, the "AUEB Volunteers" Volunteering Program was launched in September 2017. The aim of the Program is to highlight important social issues and the value of participation and practical contribution, but also to raise community awareness regarding the 17 UN Sustainable Development Goals. Actions are developed around two pillars: (a) actions addressed to AUEB's Community, which have as their main objective the maintenance of the quality of the University's infrastructure based on their aesthetics and functionality, and (b) actions addressed to Greek society. (https://auebvolunteers.gr/).

Quality Assurance

The Athens University of Economics & Business implements a quality assurance policy to continuously improve the quality of its study programs, research activities and administrative services, and upgrade the academic and administrative processes and the University's operations. The Quality Assurance Unit (MODIP) operating at AUEB coordinates and supports evaluation processes. Particularly the quality assurance of the educational process is achieved using the module/teaching evaluation questionnaire completed by AUEB students. (https://aueb.gr/modip).

Training and Lifelong Learning Center

The Center for Training and Lifelong Learning **(KEDIVIM)** is an AUEB unit which ensures the coordination and interdisciplinary cooperation in the development of training programs, continuing education, training and in general lifelong learning, which complement, modernize and/or upgrade knowledge, competences, and skills, acquired from formal education, vocational education and initial vocational training systems or from work experience, facilitating integration or reintegration in the labor market, job security and professional and personal development. (https://www.aueb.gr/el/content/dia-vioy-mathisi-kedivim-opa).