ΠΕΡΙΓΡΑΜΜΑ ΜΑΘΗΜΑΤΟΣ

(1) ΓΕΝΙΚΑ

ΣΧΟΛΗ	ΘΕΤΙΚΩΝ ΚΑΙ ΤΕΧΝΟΛΟΓΙΚΩΝ ΕΠΙΣΤΗΜΩΝ		
ΤΜΗΜΑ	ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΜΗΧΑΝΙΚΗΣ ΥΛΙΚΩΝ		
ΕΠΙΠΕΔΟ ΣΠΟΥΔΩΝ	ΠΡΟΠΤΥΧΙΑΚΟ		
ΚΩΔΙΚΟΣ ΜΑΘΗΜΑΤΟΣ	**ΕΜΥ-011**	**ΕΞΑΜΗΝΟ ΣΠΟΥΔΩΝ**	**1ο**
ΤΙΤΛΟΣ ΜΑΘΗΜΑΤΟΣ	ΑΓΓΛΙΚΑ Ι		

ΑΥΤΟΤΕΛΕΙΣ ΔΙΔΑΚΤΙΚΕΣ ΔΡΑΣΤΗΡΙΟΤΗΤΕΣ *σε περίπτωση που οι πιστωτικές μονάδες απονέμονται σε διακριτά μέρη του μαθήματος π.χ. Διαλέξεις, Εργαστηριακές Ασκήσεις κ.λπ. Αν οι πιστωτικές μονάδες απονέμονται ενιαία για το σύνολο του μαθήματος αναγράψτε τις εβδομαδιαίες ώρες διδασκαλίας και το σύνολο των πιστωτικών μονάδων*	**ΕΒΔΟΜΑΔΙΑΙΕΣ ΩΡΕΣ ΔΙΔΑΣΚΑΛΙΑΣ**	**ΠΙΣΤΩΤΙΚΕΣ ΜΟΝΑΔΕΣ**
	3	3
Προσθέστε σειρές αν χρειαστεί. Η οργάνωση διδασκαλίας και οι διδακτικές μέθοδοι που χρησιμοποιούνται περιγράφονται αναλυτικά στο (δ).		

ΤΥΠΟΣ ΜΑΘΗΜΑΤΟΣ	ΓΕΝΙΚΟΥ ΥΠΟΒΑΘΡΟΥ & ΑΝΑΠΤΥΞΗΣ ΔΕΞΙΟΤΗΤΩΝ
ΠΡΟΑΠΑΙΤΟΥΜΕΝΑ ΜΑΘΗΜΑΤΑ:	-
ΓΛΩΣΣΑ ΔΙΔΑΣΚΑΛΙΑΣ και ΕΞΕΤΑΣΕΩΝ:	English (Αγγλική)
ΤΟ ΜΑΘΗΜΑ ΠΡΟΣΦΕΡΕΤΑΙ ΣΕ ΦΟΙΤΗΤΕΣ ERASMUS	ΝΑΙ
ΗΛΕΚΤΡΟΝΙΚΗ ΣΕΛΙΔΑ ΜΑΘΗΜΑΤΟΣ (URL)	https://www.materials.uoc.gr/el/undergrad/courses/EMY011/ και https://chemistryenglish.wordpress.com/materials-i/

(2) ΜΑΘΗΣΙΑΚΑ ΑΠΟΤΕΛΕΣΜΑΤΑ

Μαθησιακά Αποτελέσματα

Οι φοιτητές με το πέρας του μαθήματος αναμένεται να:

1. Να κατανοούν την επιστημονική ορολογία ΕΜΥ
2. Να έχουν καλλιεργήσει ακαδημαϊκές δεξιότητες που σχετίζονται με τη σωστή διατύπωση τεχνικών όρων
3. Να έχουν καλλιεργήσει ακαδημαϊκές δεξιότητες που σχετίζονται με η νόμιμη παράφραση ακαδημαϊκών πηγών
4. Να έχουν καλλιεργήσει ακαδημαϊκές δεξιότητες που σχετίζονται με τη σύνταξη εργαστηριακών αναφορών ή επιστημονικών κειμένων και τη σύνθεση πηγών (με παραπομπές),
5. Να έχουν καλλιεργήσει ακαδημαϊκές δεξιότητες που σχετίζονται με την κριτική συγγραφή ακαδημαϊκών κειμένων
6. Να έχουν καλλιεργήσει ακαδημαϊκές δεξιότητες που σχετίζονται με τη προφορική παρουσίαση επιστημονικών δεδομένων σε συνέδρια

Το μάθημα σύμφωνα με το Ευρωπαϊκό Πλαίσιο Προσόντων Δια Βίου Μάθησης είναι Επιπέδου 5

(ευρείες, εξειδικευμένες γνώσεις σε ένα πεδίο εργασίας ή σπουδής και επίγνωση των ορίων των γνώσεων αυτών).

Γενικές Ικανότητες

Κατα τη διάρκεια του μαθήματος, οι φοιτητές και οι φοιτήτριες μαθαίνουν:
(1) Να διατυπώνουν εκφράσεις και κείμενα σύμφωνα με τις επιστημονικές συμβάσεις στα ακαδημαϊκά περιοδικά Επιστήμης των Υλικών
(2) Να μεταφέρουν πληροφορίες από κείμενα στον προφορικό λόγο και το αντίστροφο τηρώντας τις επιστημονικές συμβάσεις
(3) Να ενισχύουν με εποπτικά μέσα, γραφήματα και πίνακες το περιεχόμενο ώστε να παράγουν και να οργανώνουν την πληροφορία σε διαφάνειες PowerPoint.
(4) Να κατανοούν το περιεχόμενο των ακαδημαϊκών κειμένων
(5) Να δίνουν ανατροφοδότηση στους συμφοιτητές τους σύμφωνα με κριτήρια (rubrics)
(6) Να κάνουν αποτελεσματικές, στοχευόμενες και ενδιαφέρουσες επιστημονικές παρουσιάσεις
(7) Να κάνουν σύνθεση πηγών συνοψίζοντας και παραφράζοντας το ακαδημαϊκό περιεχόμενο χωρίς να κάνουν λογοκλοπή.

(3) ΠΕΡΙΕΧΟΜΕΝΟ ΜΑΘΗΜΑΤΟΣ

Συνοπτική θεματολογία/Περιεχομένου μαθήματος:

Week 1 Students are introduced to Formality and academic style conventions. Students learn how to notice formality, citations and reference conventions and following a model text, produce their own based on reference and citation guides provided for guidance.
Week 2 Students exercise reading skills like skimming and scanning on a reading about “Types of Materials” and learn how to transfer information from text to slides. Students also practice listening and a variety of note-taking skills on a topic similar to the reading. Students finally learn by giving presentations using opening phrases and signposting language for academic presentations.
Week 3 Students are expected to improve their collaborative skills by using google docs about different types of Metals and their properties.Students will be reading an article on the FUTURE of metals in order to learn how to produce well-structured, coherent and cohesive paragraphs as such they will be asked to identify topic sentences, support sentences and concluding sentences in paragraphs. Then, they will produce their own paragraph following prompts.
Week 4 Students will learn how to present and analyse statistical data, graphs and charts and learn how to write a report using appropriate linking words and terminology to express upward or downward trends, ratios, averages and numbers. Students will using information to produce a variety of visuals: mind-maps, diagrams, word tables or schemes.
Week 5 Students are expected to improve their critical thinking skills by comparing different types of writing on the topic of “Bio-printing (2019)”. They will be asked to notice the structure, the language and some conventions of a scientific article about Graphene, a relevant blog post on Graphene and a school textbook entry.
Week 6 Students will be familiar with “How to give effective presentations” after a model presentation on “bio-printing” will be given by senior students. Students are expected to practice peer-assessment skills using *criteria for peer-evaluation* and then discuss the student presentation strengths and weaknesses with the teacher and the presenters.
Week 7 Students will classify and identify properties of *solids, liquids and gases* (using the English for Chemistry EAP textbook, Unit 1) Reading and Listening tasks.Students will be asked to notice and use legitimate paraphrasing strategies in order to produce a paragraph with citations and references.
Week 8 Students will be listening and reading a variety of listening and reading sources about Ceramics and advanced Ceramics in order to include all information elements, reminder phrases and references required for Summary writing. Language focus Passive voice
Week 9 Students will be introduced to essay writing (argumentative essay, counterarguments) making a distinction between descriptive, evaluative, cautious and biased language. Reading and Listening Practice on the topic of Composites. Students will be practicing answering mock exam reading comprehension questions and tasks.
Week 10 Following a listening and a reading on Polymers (from the book English for Chemistry EAP Unit 11) students will be asked to make a mind map connecting properties of of Polymers such as thermosetting, thermoplastic, linear, branched, cross-linked, fibers, plastics and elastomers, solubility and rigidity. Language focus: Gerund and infinitive Students will be re-writing sentences avoiding wordiness
Weeks 11 and 12 Student Presentations (Slides need to be in pptx or pdf format and student need to bring their file in a usb stick)

(4) ΔΙΔΑΚΤΙΚΕΣ και ΜΑΘΗΣΙΑΚΕΣ ΜΕΘΟΔΟΙ - ΑΞΙΟΛΟΓΗΣΗ

ΤΡΟΠΟΣ ΠΑΡΑΔΟΣΗΣ	Πρόσωπο με πρόσωπο & Εξ Αποστάσεως Εκπαίδευση
ΧΡΗΣΗ ΤΕΧΝΟΛΟΓΙΩΝ ΠΛΗΡΟΦΟΡΙΑΣ ΚΑΙ ΕΠΙΚΟΙΝΩΝΙΩΝ	Χρήση Power Point και Πίνακα Googledocs, google forms, Edmodo, Socrative, Kahoot googleslides, edpuzzle
ΟΡΓΑΝΩΣΗ ΔΙΔΑΣΚΑΛΙΑΣ	***Δραστηριότητα*** ***Φόρτος Εργασίας Εξαμήνου*** Σεμινάρια 30 ώρες Παρουσιάσεις Φοιτητών 6 *ώρες* Μελέτη στο σπίτι 44 Σύνολο Μαθήματος 80 ώρες
ΑΞΙΟΛΟΓΗΣΗ ΦΟΙΤΗΤΩΝ	Η αξιολόγηση των φοιτητών γίνεται με: • Προφορική παρουσίαση και περίληψη ενός άρθρου 20% • Εργασίες στην τάξη (10%) • Εργασίες στο σπίτι 20% • Γραπτές εξετάσεις 50%

(4) ΣΥΝΙΣΤΩΜΕΝΗ-ΒΙΒΛΙΟΓΡΑΦΙΑ

- Προτεινόμενη Βιβλιογραφία:

1. Katsampoxaki-Hodgetts K. (2017) English for Chemistry EAP, Disigma Publications

https://www.disigma.gr/english-for-chemistry-eap.html

- Συναφή επιστημονικά περιοδικά:
Suggested for presentations:

Please make sure you choose ONE article from the most downloaded articles section of the following journals:

a) https://www.journals.elsevier.com/journal-of-science-advanced-materials-and-devices/most-downloaded-articles
b) https://www.journals.elsevier.com/progress-in-materials-science/most-downloaded-articles
c) https://www.journals.elsevier.com/materials-today/most-cited-articles
d) https://www.journals.elsevier.com/materials-today-communications/most-downloaded-articles
e) https://www.journals.elsevier.com/biomaterials/most-downloaded-articles
f) https://www.journals.elsevier.com/energy-storage-materials/most-downloaded-articles
g) https://www.journals.elsevier.com/materials-characterization/most-downloaded-articles

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCIENCES AND ENGINEERING		
ACADEMIC UNIT	MATERIALS SCIENCE AND ENGINEERING		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**EMY-011**	**SEMESTER**	**1st**
COURSE TITLE	English I		

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**
	3	3
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 & SKILLS DEVELOPMENT
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	https://www.materials.uoc.gr/el/undergrad/courses/EMY011/ and https://chemistryenglish.wordpress.com/materials-i/

(2) LEARNING OUTCOMES

Learning outcomes
The learning goals that students are expected to attain are the following: 1. learn scientific terminology of Materials science 2. Improve academic skills pertaining to formality, caution, legitimate paraphrasing, writing citations and synthesising sources, critical writing, essay writing (with documented evidence), peer-feedback and academic presentations. *The course according to the European Qualifications Framework for Lifelong Learning belongs to level 5 (comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge).*
General Competences

The course is formed in such a way, that during lectures and especially during the preparation of the written assignment (homework), that students will be able to:

(1) Notice formality and academic style conventions,
(2) Notice scientific conventions in Materials Science Journals
(3) Transfer information form texts and visually enhance it in order to produce PowerPoint slides.
(4) Write a laboratory report following a graph or chart,
(5) Exercise peer-feedback
(6) Give effective presentations.
(7) Write citations and references.
(8) Synthesise sources, summarise and paraphrase academic sources legitimately.

(3) SYLLABUS

Week 1 Students are introduced to Formality and academic style conventions. Students learn how to notice formality, citations and reference conventions and following a model text, produce their own based on reference and citation guides provided for guidance.

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Weeks 11 and 12 Student Presentations (Slides need to be in pptx or pdf format and student need to bring their file in a usb stick)

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face-to-Face & Distance Learning (Asynchronous via Edmodo)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Use of Power Point, and White board, Supportive learning through teleconference tools, Googledocs, google forms , Edmodo, Socrative, Kahoot googleslides, edpuzzle
TEACHING METHODS	***Activity Semester workload*** Workshops 30 hours Student presentations-Peer-feedback 6 hours Homework 44 **Course total 80 hours**
STUDENT PERFORMANCE EVALUATION	Students are evaluated by: Coursework (Portfolio) and presentations 50% Written exam 50%

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. Katsampoxaki-Hodgetts K. (2017) English for Chemistry EAP, Disigma Publications

https://www.disigma.gr/english-for-chemistry-eap.html

- Related academic journals:
Suggested for presentations:

Please make sure you choose ONE article from the most downloaded articles section of the following journals:

a) https://www.journals.elsevier.com/journal-of-science-advanced-materials-and-devices/most-downloaded-articles
b) https://www.journals.elsevier.com/progress-in-materials-science/most-downloaded-articles
c) https://www.journals.elsevier.com/materials-today/most-cited-articles
d) https://www.journals.elsevier.com/materials-today-communications/most-downloaded-articles
e) https://www.journals.elsevier.com/biomaterials/most-downloaded-articles
f) https://www.journals.elsevier.com/energy-storage-materials/most-downloaded-articles
g) https://www.journals.elsevier.com/materials-characterization/most-downloaded-articles