

## Bachelor's Degree in Natural and Environmental Sciences

### English for Science - Language Laboratory

Academica Year 2024-2025

#### Main Course Information

Academic Subject	English for Science - Language Laboratory
Degree Course	Bachelor's Degree in Natural and Environmental Sciences
Degree Class	L/32
ECTS Credits (CFU)	3
Attendance	Compulsory
Teaching Language	English
Academic Year	2024/2025

#### Professor

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Tutorial Place/Day/Time	Lecturer's Office, Palazzo delle Aule, II floor Semester I Tuesdays 9-10:30, or other days and times upon appointment. Semester II Thursdays 11:30-13, or other days and times upon appointment.

Course Details	Language Studies	SSD code	Class Type
	Pass-Fail Exam	L-LIN/12	Lectures

Course Period	Year	Semester
	I	I

Lesson Type	CFU/ECTS	Lecture Hours	CFU/ECTS Laboratory	Laboratory Hours
	2	16	1	15

Time Management	Total hours	Teaching hours	Self-study hours
	75	31	44

Academic calendar	First lesson	Last lesson
	03/10/2024	19/01/2025

Syllabus	
Course entry requirements	<p>CEFR B1</p> <p>Students should have a B1 English language level knowledge as recognized by the Common Framework of Reference for Languages. This knowledge level will be ascertained via an entrance test.</p>
Expected learning outcomes (according to Dublin Descriptors) (it is recommended that they are congruent with the learning outcomes contained in A4a, A4b, A4c tables of the SUA-CdS)	
Knowledge and understanding	<p>Students will acquire the basic notions of grammar, functions, style, vocabulary, and phonetics of the English language, and use these notions to develop strategies for expressing scientific concepts and experiments. This knowledge will be acquired through theoretical and practical in-class lessons and home assignments.</p>
Applying knowledge and understanding	<p>Students will acquire the ability to read, understand, interpret, express and apply the various linguistic functions and structures in the context of academic technical-scientific language. Student will be required to write and / or orally present descriptions and / or scientific reports as well as to synthesize scientific articles on specific topics developed during the lesson.</p>
Making inferred judgements and choices	<p>Students will be provided with the techniques and strategies necessary for acquiring comprehension skills and applying the structures, functions, style, lexicon of the English language in scientific discourse. Students will be asked to hand in written papers on a scientific topic and, subsequently, present them in the classroom.</p>
Communication knowledge and understanding	<p>Students will develop the ability to express and present scientific concepts and experiments with clarity and rigor using the linguistic knowledge acquired through the knowledge of structures and phraseologies learned during the lessons with the appropriate grammatical, structural, stylistic, lexical and phraseological functions used in scientific discourse, in English.</p>
Capacities to continue learning	<p>Students will autonomously extend the knowledge acquired by reading and understanding texts of a scientific nature, and writing phenomena, experiments, articles, and/or scientific theses. Furthermore, they will have the opportunity to listen to audio</p>

	<p>recordings and watch videos. Students will be exposed not only to the English and American pronunciations, but of English spoken throughout the world. They will be required to reiterate the pronunciation properly and appropriately. Students will be able to identify the main information contained in the scientific texts written in English as well as assimilate the information. Through the listening of audio recordings and watching the videos, the course will enable students to learn different English language pronunciations and compare the varieties.</p>
<b>Syllabus</b>	
Course Content	<p>Lectures are given in English.</p> <p>Analysis of linguistic, grammatical, functional, morphological, lexical, phonetic, syntactic, semantic, and rhetorical structures. Expository strategies of scientific language; written and oral. Reading and discussion of authentic scientific articles / texts. Written elaborations on scientific topics (Science laboratory report; description of a scientific phenomenon; description of a scientific device / instrument / apparatus).</p> <p><b><u>A. Functional, pragmatic, and lexical content</u></b></p> <ul style="list-style-type: none"> <li>-Reading numbers, mathematical operations/equations, geometric figures.</li> <li>-Describing shape, size, material, colour, use, and purpose of objects, tools, instruments, etc.</li> <li>-Classifying, describing, and comparing the qualities and physical properties of materials, organisms, and substances in terms of appearance, texture, strength.</li> <li>-Sequencing noun modifiers.</li> <li>-Describing position, movement, action and direction of objects in space and time.</li> <li>-Writing basic scientific definitions.</li> <li>-Identifying, defining, and describing natural laws, processes, cycles and phenomena.</li> <li>-Identifying, defining, and describing objects, instruments, devices,</li> </ul>

etc.

- Stating aim and purpose.
- Instructing procedures, directions, warnings.
- Expressing time and logical sequencing in the description of a process, cycle, scientific experiment.
- Stating predictions, probable, hypothetical and theoretical results.
- Reporting actions, observations and findings,
- Explaining and suggesting cause, effect and reason.
- Formulating conditions and hypothetical situations.
- Drawing comparison and contrast, difference and similarity.
- Expressing direct/indirect correlation, proportionality.
- Interpreting graphs and other visual representations.
- Accounting for and discussing results.
- Stating conclusions.
- Suggesting further studies.
- Attenuating affirmations.
- Understanding and generating IMRAD.
- Structuring textually and conceptually a Scientific Lab Report.

**B. Grammatical, morphological, syntactic, semantic, and rhetorical content**

- To be and to have: as main and auxiliary verbs.
- Articles: the indefinite, definite, and zero in definitions, introductions, generalizations, partitive phrases, specificity, uniqueness, and common exceptions, as well as anaphoric, cataphoric and exophoric referencing.
- Nouns: singular/plural, regular/irregular, countable/uncountable, collective, pure/derived, compound form, dual, concrete/abstract.
- The simple present: to express states, general truths, habits, mathematical concepts.
- The future tense: to signal predictions, intentions and anticipation.
- Noun phrases, modifiers and qualifiers.
- Adjectives: pure/derived to express shape, colour, quality, property
- Adverbs and prepositions of space and movement, manner, time, sequence, means, and instrument.
- Relative pronouns and adverbs in clauses: defining and non-defining, and reduced relative clauses.
- The imperative mood: to direct and instruct.
- The simple past and past perfect: to locate experimental data

	<p>within a time frame.</p> <ul style="list-style-type: none"> <li>-The passive voice: by and the agent, agentless passive or thematic focus in instructions, descriptions of processes, observations and deductions, attenuation.</li> <li>-Comparative form: to express equal, different and proportional relations.</li> <li>-Superlative form: to express relative and absolute superiority.</li> <li>-Epistemic modals: to express mental/physical ability, possibility, probability, remote possibility, permission, necessity, obligation, prohibition, lack of prohibition, deduction, suggestion.</li> <li>-The present perfect: to focus on events and results.</li> <li>-The zero, first and second type conditional: to express real, unreal, predicted, expected implications and results.</li> <li>-Time sequencing, logical connectors, and cohesive devices: to signal cause, effect and results.</li> </ul>
Course Books/Bibliography	<p>Macmillan English Grammar in Context- Intermediate - With Key. Macmillan Publishers, Oxford (2008). Handouts (Instructor)  Internet Links (Instructor)</p>
Notes	<p>Texts used by the instructor during the lessons are available to students for consultation.</p>
Teaching Methods	<p>Lectures and in-class exercises with the aid of slides, audio recordings, videos, internet, and grammar exercises to be completed at home.</p>
Assessment Methods	<p>The final assessment will take into account the results of any tests and / or written documents produced during the course, grammar exercises completed at home, final written test/exam, and oral exam all in English. Students will be required to describe a scientific concept and / or experiment, and to report on the authentic texts proposed / chosen, using the appropriate academic-scientific language. Assiduous and pro-active participation during the course will contribute to a very positive evaluation. The final evaluation will be expressed as a "Pass/Fail" score.</p>
Evaluation Criteria	<p><i>Knowledge and understanding</i> Students will demonstrate their language knowledge of the fundamentals of Scientific English, using it to describe concepts,</p>

phenomena, scientific experiments acquired during the lectures, both in written and oral form.

*Ability to apply knowledge and understanding*

Students will describe in English the scientific / academic topics and readings addressed as well as demonstrate the ability to apply linguistic knowledge in realia and scientific contexts. Students who have acquired these skills both during the written and oral exam will obtain a very positive evaluation of the overall exam and final course score.

*Autonomy of judgment*

During the exam, students must be able to describe in English the scientific concepts acquired during the course. This ability will lead to a very positive evaluation of the overall exam.

*Communicating knowledge and understanding*

The ability to clearly express concepts and formulate interpretations using the scientific terminology acquired during the course will be very positively evaluated. Students will need to apply the acquired knowledge in informative or didactic contexts. Presentation of these skills, together with a good command of the English language and of the scientific lexicon, will produce an excellent final result.

*Capacities to continue learning*

Students must be able to independently acquire further knowledge on the basis of an autonomous grammar preparation provided through exercises completed at home. They must demonstrate knowledge of the fundamentals of the English language in the scientific discourse. The exams aim to verify the objectives set out, the level of English knowledge, the ability to apply the topics studied in the course as well as to interpret and discuss scientific topics developed by the individual student.

*Vittoria Sportelli*

