

# Teaching guide

## IDENTIFICATION DETAILS

Degree:	Expert in Biotechnological Research Methodology (UFV-Awarded Title associated with Biotechnology)		
Faculty/School:	Bio-health Science		
Course:			
Type:	Compulsory Internal	ECTS credits:	4
Year:	3	Code:	20115
Teaching period:	Sixth semester		
Teaching type:	Classroom-based		
Language:	English		
Total number of student study hours:	100		

Teaching staff	E-mail
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## SUBJECT DESCRIPTION

### 2. COURSE DESCRIPTION

#### 2.1. Summary

To provide students with knowledge, skills and techniques that allows them to use the English language as a tool for work, research or documentation. Educate and train the students to enhance/improve effective communication in English within their professional field of study.

Journal Club and Scientific Writing is a mandatory course for students of the second semester of the 3rd year of the Biotechnology degree. This course corresponds to 4 ECTS Credits, which involves 100 hours of student dedication, taught in the sixth Semester of the 3rd year of the Biotechnology Degree as well as for the Expert in Biotechnological Research Methodology.

## GOAL

To develop a communicative competence in English according to different aspects, namely: grammar, sociolinguistic, discourse, sociocultural and strategic.

## PRIOR KNOWLEDGE

It is recommended that students have a command of a consolidated B2 level of English since the language used in class corresponds to a B2-C1 level (according to the European Common Language Framework of Reference).

## COURSE SYLLABUS

### Extended Course Contents

Introduction to Scientific Writing. Placement Test. Oral assessment. Course guidelines and syllabus.

UNIT 1: How to write an Introduction. Structure. Grammar and writing skills. Tense pairs. Signalling language. Passive/Active. Building a Model. Practice: testing the model. Samples. Vocabulary for the introduction. Writing an introduction. Group work practice: Dissecting a paper I.

UNIT 2: Writing about Methodology. Structure. Grammar and writing skills. Passives and tense pairs. Use of 'a' and 'the'. Adverbs and adverb location. Group oral presentations Dissecting a paper I (10' each group).

UNIT 3: Writing about Results. Structure. Grammar and writing skills. Sequence. Frequency. Quantity. Causality. Building a model. The model. Testing the model. Practice: model analysis. Vocabulary task. Vocabulary for the results section. Practice: Key vocabulary / Prefixes used in scientific writing. Writing a results section. Practice.

UNIT 4: Writing the Discussion/Conclusion. Structure. Grammar and writing skills. Building a model. Practice. The model. Testing the model. Practice. Vocabulary task. Vocabulary for the Discussion/Conclusion. Writing a Discussion/Conclusion. Practice.

UNIT 5: Writing the Abstract. Structure. Grammar and writing skills. Verb tense. Length. Language. Building a model. Practice. The models. Testing the models. Vocabulary Task. Vocabulary for the Abstract. Practice. Assignment for Semana Santa: Dissecting a paper II.

Technical Writing tips and practice. Practice: oral presentations / group discussions: Dissecting a paper II (1st session: Group 1)

Grammar practice. Practice: oral presentations / group discussions: Dissecting a paper II (2nd session). Practice: oral presentations / group discussions: Dissecting a paper II (3rd session)

Practice: oral presentations / group discussions: Dissecting a paper II (4th session)

### FINAL TEST / GROUP ORAL PRESENTATIONS

#### SUMMARY:

1. Scientific section based on current journal articles and scientific publications in English, focusing on specific predefined contents:

- a) How to read a scientific paper
- b) How to write an introduction to a scientific paper based on the findings and results of an investigation
- c) How to read results and draw conclusions
- d) How to conduct a constructive review of scientific research
- e) How to write an abstract
- f) How to write a proposal for future research
- g) How to orally present this proposal to the scientific community

2. Scientific and communicative English support section, focusing on the correct and appropriate language use.

- a) Written Expression: collocation / word families / passive voice / expressing results based on graphs, etc..
- b) Speaking:
  - Techniques to present in public
  - Emphasis on pronunciation and clear expression
  - Practical tests as training exercise for the final proposal presentation.

## Development

1. Scientific section based on current journal articles and scientific publications in English, with focus on specific and pertinent topics.

- To enable the student to read and interpret scientific articles in English as well as acquire the 4 basic competences for writing letters, articles and produce scientific communications in English.

-To provide students with appropriate tools and techniques necessary to effectively present a topic in English.

-To prepare students for a scientific presentation in public.

2. Scientific and communicative English support section, focusing on the correct and appropriate language use.

- To improve overall understanding of English grammar and vocabulary related to the discussion topics chosen.

- To provide students with the tools and skills to participate in lectures and to prepare presentations in English.

## EDUCATION ACTIVITIES

### Summary

The methodology will be active, participatory and collaborative based on a communicative approach towards the English language by means of classroom activities: lectures, group dynamics (debates, role playing), lectures, group tutorials; and a wide array of student's self-committed activities such as self study, work performance in the virtual classroom, design and preparation of presentations, among others. Class activities will involve reading, finding information, developing work teams and solving exercises and other participatory activities.

### Development

The methodology will be active, participatory and collaborative based on classroom activities.

\* Lectures (academic / matter of study): teacher-led but with a high degree of student participation.

\* Seminars (practice): work in small groups to practice relevant previously revised course units and study material.

\* Group work presentations (scientific papers/reviews): For workgroups and directly supported by the tutorials, students will prepare and present the class a previously chosen topic under the guidelines and professor's supervision in order to promote speaking in public.

### Tutorials:

-Group tutorials will be mandatory.

-Individual: target students individually in order to review and discuss contents regarding the matter of study previously presented in lectures. These tutorials will be held upon appointment.

### Evaluation:

-Involves presenting a final proposal presentation based on a previously given paper which will be presented orally and also a written dossier will be submitted. Tutorials, group dynamics (debates, role play), class participation, autonomous activities and class work will strongly be considered as part of the continuous evaluation.

-Group work: will be tested upon skills regarding the design and development of the final paper.

-Theoretical study: study of the theoretical contents of the program, preparation of the final presentation and tutorials.

Contents and teaching materials will be uploaded to the virtual classroom: the student will have all these materials and supporting documents for the study and assignments guidelines and extra documents as well as complementary, and maintaining tutorials with the professor.

## DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
40 hours	60 hours
LECTURES 28h SEMINARS 4h	GROUP WORK 25h SELF STUDY 25h

## SKILLS

- To develop habits of oral and written communication in English.
- To acquire the ability of analytic, synthetic, reflective, critical, theoretical and practical thinking.
- To learn strategies to read a scientific article.
- To write an introduction to a scientific paper based on the findings and results of an investigation.
- To constructively criticize and suggest improvements or other methods.
- To think and write about and submit a proposal for a future research, based on an actual idea.

## LEARNING RESULTS

- To use different types of discourse and organize them by considering the coherence and cohesion procedures.
- To define and make the necessary adjustments to render communication as much effective as possible.
- To read scientific texts of medium difficulty in a comprehensive and independent manner pertinent to the student's field of study.
- To use proper English language grammar and vocabulary in all sort of communication situations, particularly in academic and working scenarios.
  - To reflexively analyze, discuss and express opinions in English from reading and review extracts belonging to scientific texts and articles press.
- To come up with a final proposal presentation based on a relevant current issue of a given area of knowledge related to the course by using ICTs.

## LEARNING APPRAISAL SYSTEM

### LEARNING ASSESSMENT SYSTEM

#### Summary

The testing modality used is the continuous assessment. It is the result of a continuous monitoring of the work performed and knowledge acquisition. It is aimed to verify the student's progress in this course. To achieve this, the procedures and techniques used will include: class questioning, paper discussions and a final group project presentation proposal, this last to be presented orally and submitted as a written dossier.

#### Development

Assessment is performed on a continuous basis comprising:

- a. The ability of students to integrate theoretical contents in practice evidenced in classwork participation, discussions and personal reflections.
- b. The knowledge, skills, abilities and acquired language skills.
- c. Participation in the activities proposed in and out of the classroom, the implementation of mandatory and / or

voluntary work, exposure of personal work, a positive attitude in class and fulfilment of autonomous activities.  
d. Class attendance and tutorials.

Tools and techniques for evaluation:

a. Techniques:

- Oral presentation and written exercises.
- Group dynamics: discussion, role-play, etc.

b. instruments:

- Compulsory tutorials.
- Written and oral final presentation,.
- Participation.

**CONTINUOUS ASSESSMENT:**

To pass the course upon a continuous assessment, students will be granted the following percentages:

Autonomous and group work: 35%

- Positive attitude
- Article preparation and classroom activities
- Completed assignments in the virtual classroom
- Regular teamwork meetings

Individual and group class work: 15%

- Positive attitude
- Attendance and participation
- Tutorials
- Compliance test / final article

Final Presentation Project: 50%

- Preparation of final project
- Oral Presentation

**FINAL SCORE: 100%**

**CASES INVOLVING THE APPROVED BY CONTINUOUS ASSESSMENT:**

1. Plagiarism on papers and projects.

Provided that plagiarism of any individual or group work, project, etc, might occur, the student will FAIL the course in ordinary session.

2. Deadline work and oral presentations.

The dates on which students will have to submit papers or both individual and group presentations, will be fixed by the professor at the beginning of the course. Once this date is past due, no assignments will be collected unless justified reasons for the delay are properly provided.

3. Delivering documents.

- Students who miss class for a legitimate reason have the obligation to provide a proof of it (a doctor's note, i.e.).
- These documents will be submitted on the day after the non attendance.
- Unless these document are provided in time, they will not be taken and will account for the 20% of unexcused absences.

4. Honors.

Honors are granted only to those students who stand out above peers, not only with regard to their academic performance in the subject, but also with regard to their attitude and interest against the study and the attitude, commitment, teamwork, along the course.

**WORKERS AND REPEATERS**

If a student works part-time or full-time or is a repetitive student therefore not being able to attend class regularly, it is up to his/her responsibility to inform the professor of this situation at the course start and submit a proof of work in accordance to the professor's norms.

It is the student's responsibility to contact the course teacher for guidelines on his/her final evaluation.

## **BIBLIOGRAPHY AND OTHER RESOURCES**

## Basic

- Scientific papers covering a wide range of up-to-date scientific issues during the course as part of training and both individual and group activities.
- Scientific papers stressing on industrial microbiology-related issues for the final proposal presentation (for those students taking the homonymous biotechnology 3rd-year-course).
- Several professor's own material intended to act as a working material for class use as well as extra material especially designed for the Journal Club (available in the Virtual Classroom for downloading).

## Additional

- Langenscheidt GmbH. 2009. Dictionary of Contemporary English (DCE): For Advanced Learners.
- OUP. 2008. Oxford Dictionary of Biology. 6ª Edición. Oxford University Press. - Grenville, K. 2007.
- Writing From Start to Finish: A Six-Step Guide. Allen & Unwin Publishers, UK. (available as free PDF)
- Matthews, J. y R. Matthews. 2001. Successful Scientific Writing: A Step-by-Step Guide for the Biological and Medical Sciences (available as free PDF)
- Strunk Jr., W. 1999. The Elements of Style. Longman Publishing, UK. (available as free PDF)
- Day, R. y B. Gastel. 2006. How to Write and Publish a Scientific Paper. Greenwood, USA. (available as free PDF)