



# **Biological Bases of Language**

Code: 100275 ECTS Credits: 6

Degree	Туре	Year	Semester
2500245 English Studies	ОТ	3	0
2500245 English Studies	ОТ	4	0
2500248 Spanish Language and Literature	ОТ	3	0
2500248 Spanish Language and Literature	ОТ	4	0
2501801 Catalan and Spanish	ОТ	3	0
2501801 Catalan and Spanish	ОТ	4	0
2501902 English and Catalan	ОТ	3	0
2501902 English and Catalan	ОТ	4	0
2501907 English and Classics	ОТ	3	0
2501907 English and Classics	ОТ	4	0
2501910 English and Spanish	ОТ	3	0
2501910 English and Spanish	ОТ	4	0
2501913 English and French	ОТ	3	0
2501913 English and French	ОТ	4	0
2503998 Catalan Philology: Literary Studies and Linguistics	ОТ	4	0
2504211 Spanish Language and Literature	ОТ	3	0
2504211 Spanish Language and Literature	ОТ	4	0
2504212 English Studies	ОТ	3	0
2504212 English Studies	ОТ	4	0
2504235 Science, Technology and Humanities	ОТ	4	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

# Contact

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# **Use of Languages**

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes

## Other comments on languages

Some of the materials used in class are in English. The basic handbook is in Spanish.

### **Prerequisites**

No specific requirements are needed to follow the course beyond some elementary notions of linguistics. It is advisable, however, to be able to read scientific texts in English.

## **Objectives and Contextualisation**

This course is presented as an introduction to the principles and methods of the biolinguistic approach in the language sciences. This approach proposes to view language understood as a natural object, as one of the characters of the human species and, therefore, one that may be studied applying the very same principles and methods one uses when studying, for example, its anatomy. The approach thereby implies asking such questions as what are the basic neural structures underlying human linguistic capacities and how they work, what is their evolutionary history and how they develop in the individual. The main goal of the course is, therefore, to offer students some of the basic theoretical tools for them to be able to understand and assimilate some of the major achievements in this interdisciplinary area, such that they may pursue their research in the camp, if so they wish.

### Competences

**English Studies** 

- Develop critical thinking and reasoning and knowing how to communicate effectively both in your mother tongue and in other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
- Relating the methods and results of linguistics with those from other sciences and currents of though and interpreting the overlapping of language with other aspects of the human activity.
- Students can apply the knowledge to their own work or vocation in a professional manner and have the powers generally demonstrated by preparing and defending arguments and solving problems within their area of study.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive and cultural foundations of human language and the main contemporary grammatical models.

Spanish Language and Literature

- Developing critical thinking and reasoning and communicating them effectively both in your own and other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
- Relating the methods and results of linguistics with those from other sciences and currents of though and interpreting the overlapping of language with other aspects of the human activity.
- Students must be capable of applying their knowledge to their work or vocation in a professional way
  and they should have building arguments and problem resolution skills within their area of study.

- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive, and cultural foundations of human language and the main contemporary grammatical structures.

### Catalan and Spanish

- Develop critical thinking and reasoning and knowing how to communicate effectively both in your mother tongue and in other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
- Relating the methods and results of linguistics with those from other sciences and currents of though and interpreting the overlapping of language with other aspects of the human activity.
- Students can apply the knowledge to their own work or vocation in a professional manner and have the
  powers generally demonstrated by preparing and defending arguments and solving problems within
  their area of study.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive and cultural foundations of human language and the main contemporary grammatical models.

### **English and Catalan**

- Develop critical thinking and reasoning and knowing how to communicate effectively both in your mother tongue and in other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
- Relating the methods and results of linguistics with those from other sciences and currents of though and interpreting the overlapping of language with other aspects of the human activity.
- Students can apply the knowledge to their own work or vocation in a professional manner and have the
  powers generally demonstrated by preparing and defending arguments and solving problems within
  their area of study.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive and cultural foundations of human language and the main contemporary grammatical models.

### **English and Classics**

- Develop critical thinking and reasoning and knowing how to communicate effectively both in your mother tongue and in other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
- Relating the methods and results of linguistics with those from other sciences and currents of though and interpreting the overlapping of language with other aspects of the human activity.
- Students can apply the knowledge to their own work or vocation in a professional manner and have the powers generally demonstrated by preparing and defending arguments and solving problems within their area of study.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive and cultural foundations of human language and the main contemporary grammatical models.

- **English and Spanish**
- Develop critical thinking and reasoning and knowing how to communicate effectively both in your mother tongue and in other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
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  powers generally demonstrated by preparing and defending arguments and solving problems within
  their area of study.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive and cultural foundations of human language and the main contemporary grammatical models.

#### **English and French**

- Develop critical thinking and reasoning and knowing how to communicate effectively both in your mother tongue and in other languages.
- Identifying the linguistic types behind the linguistic diversity and establishing generalisations and universal principles.
- Recognising and using reasonably the principles, methods and results of the structural analysis of languages, foundations of the linguistic theory and approaches of the study of language and communication as a complex, emerging and dynamic phenomenon.
- Relating the methods and results of linguistics with those from other sciences and currents of though and interpreting the overlapping of language with other aspects of the human activity.
- Students can apply the knowledge to their own work or vocation in a professional manner and have the powers generally demonstrated by preparing and defending arguments and solving problems within their area of study.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Understanding the biological, cognitive and cultural foundations of human language and the main contemporary grammatical models.

### Catalan Philology: Literary Studies and Linguistics

- Critically apply the different instruments of analysis to different types of linguistic data.
- Critically read and interpret texts.
- Demonstrate a mastery of the rules of the Catalan language, its linguistic bases and all its application in the academic and professional fields.
- Display teamwork skills.
- Identify the foundations of human language and the principles, methods and results of structural analysis of languages.
- Produce written work and oral presentations that are effective and framed in the appropriate register.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

### **Learning Outcomes**

- 1. Accurately drawing up normative texts.
- Analyse different types of linguistic data.
- 3. Analysing various types of linguistic data.
- 4. Apply findings presented in specialist papers to the analysis of similar or related phenomena.
- 5. Construct normatively correct texts.
- 6. Drawing up brief original works about these topics.

- 7. Identify different theoretical options or ways of dealing with the same problem from alternative theoretical frameworks.
- 8. Identify different theoretical options or ways to address the same problems from alternative theoretical frameworks.
- 9. Identify principal and secondary ideas and express them using correct language.
- 10. Identify the main and secondary ideas and express them with linguistic correctness.
- Identifying different theoretical options or ways of dealing with the same problem from alternative theoretical frameworks.
- 12. Identifying main and supporting ideas and expressing them with linguistic correctness.
- 13. Identifying the main and secondary ideas and expressing them with linguistic correctness.
- 14. Plan, organise and carry out work in a team.
- 15. Produce normatively correct written and oral texts.
- 16. Solve problems autonomously.
- 17. Solve problems self-sufficiently.
- 18. Solving problems autonomously.
- 19. Summarise the knowledge acquired about the origin of the various fields within the discipline and the transformations they have undergone.
- 20. Summarising acquired knowledge about the origin and transformations experienced in its several fields of study.
- 21. Use and interpret texts of an interdisciplinary nature on the connections between linguistics and other disciplines.
- Use and interpret texts of interdisciplinary nature about the connections between linguistics and other disciplines.
- 23. Use basic methods for compiling and processing linguistic data.
- 24. Use the appropriate and specific terminology of the literary studies.
- 25. Using the basic linguistic methods of data compilation and treatment.
- 26. Write brief original texts on these topics.
- 27. Write text commentaries from a critical standpoint.

### Content

- 1.- Introduction. Methodological problems in the study of language and cognition from the biological perspective.
- 2.- Evolutionary biology: A brief historical introduction from Darwin till today.
- 3.- The form/function problem in biology and its translation to the field of language and cognition.
- 4.- Evolutionary developmental biology: The role of the organism in biological explanations and the evolution of language.
- 5.- Developmental ecology: The role of the environment in biological explanations and the acquisition of language.

# Methodology

The course combines three types of activities: theoretical sessions in charge of the teacher, oral presentations about specific topics in charge of the students, and individualized work. The latter two coform the basis for the final assessment of the course. The idea is that the teacher will set the bases for each of the subjects and, thereafter, that the students present orally some of these fundamental questions in class in order to foster debate.

The calendar will be available on the first day of class. Students will find all information on the Virtual Campus: the description of the activities, teaching materials, and any necessary information for the proper follow-up of the subject. In case of a change of teaching modality for health reasons, teachers will make readjustments in the schedule and methodologies.

Once the teaching assessment polls have been made public, 15 minutes of one of the face-to-face sessions will be reserved for students to be able to answer them.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

### **Activities**

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Theoretical sessions	45	1.8	
Type: Supervised			
Oral presentations	30	1.2	3, 1, 22, 13, 12, 10, 11, 7, 6, 18, 16, 20, 25, 24
Type: Autonomous			
Preparing the oral presentation and writing the review essay	75	3	3, 1, 22, 13, 12, 10, 11, 7, 6, 18, 16, 20, 25, 24

#### Assessment

Students will be required to prepare an oral presentation. This presentation shall be based on one of the chapters of the course's handbook (see bibliography). The teacher will base his assessment on the oral presentation and the student's participation in class. This activity represents a 10% of the final qualification. Also, as an individual activity connected with the theoretical aspects of the handbook, each student will be required to deliver a written test. This test represents a 50% of the final qualification. Additionally, students should write a review essay of the course handbook. This activity will represent a 40% of the final qualification. All activities will be marked on a scale from 0 to 10 and, afterwards, a final mean will be calculated. A PASS grade is obtained with a mark greater or equal to 5.

No Avaluable: Those students not delivering all three evidences will get the qualification of No Avaluable.

Resitting: The condition for being able to have access to resitting is having obtained a global mark above 3.5 and below 5: This figure must be derived from the assessment of activities representing at least two thirds of the global assessment of the subject. Given that the presentation is not eligible for reassessment, resitting will consist in delivering a summary of one of the five subjects of the course PLUS delivering the review or a refurbished version thereof. In any case, the maximum degree that will be awarded in the resitting round will be 5.

In the event that tests or exams cannot be taken onsite, they will be adapted to an online format made available through the UAB's virtual tools (original weighting will be maintained). Homework, activities and class participation will be carried out through forums, wikis and/or discussion on Teams, etc. Lecturers will ensure that students areable to access these virtual tools, or will offer them feasible alternatives.

Revision procedure: At the time of carrying out any of the evaluation activities the teacher will make public through Moodle the dates and procedures for the revision of said activities.

In the event of a student committing any irregularity that may lead to a significant variation in the grade awarded to an assessment activity, the student will be given a zero for this activity, regardless of any disciplinary process that may take place. In the event of several irregularities in assessment activities of the same subject, the student will be given a zero as the final grade for this subject.

### **Assessment Activities**

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral presentation	10%	0	0	3, 4, 1, 5, 22, 21, 13, 12, 10, 9, 8, 11, 7, 14, 15, 6, 18, 16, 17, 20, 19, 25, 24, 23
Review essay	40%	0	0	3, 4, 1, 5, 22, 21, 13, 12, 10, 9, 8, 11, 7, 15, 6, 27, 26, 18, 16, 17, 20, 19, 25, 24
Theoretical test	50%	0	0	3, 2, 4, 1, 5, 22, 21, 13, 12, 10, 9, 8, 11, 7, 6, 18, 16, 17, 20, 19, 25, 24, 23

# **Bibliography**

Course handbook:

Lorenzo, Guillermo. 2013. Biolingüística. La nueva síntesis. Accessible online under Creative Commons at http://www.unioviedo.es/biolang/la-nueva-sintesis/

Some suggested readings:

Arthur, W. 2011. Evolution. A Developmental Approach. Oxford: Wiley-Blackwell.

Balari, S & G. Lorenzo. 2013. Computational Phenotypes. Towards an Evolutionary Developmental Biolinguistics. Oxford: Oxford University Press.

Berwick, R. C. & N. Chomsky. 2015. Why Only Us. Language and Evolution. Cambridge, MA: The MIT Press

Boeckx, C. & K.K. Grohmann, eds. 2013. The Cambridge Handbook of Biolinguistics. Cambridge: Cambridge University Press.

Boeckx, C., M.C. Horno-Chéliz & J.-L. Mendívil-Giró, eds. 2012. Language, from a Biological Point of View. Newcastle upon Tyne: Cambridge Scholars Publishing.

Garcia-Fernàndez, J. & D. Bueno. 2016. L'embrió inconformista. Com influeix en la nostra evolució el desenvolupament embrionari. Barcelona: Edicions Universitat de Barcelona.

Minelli, A. 2007. Forme del Divenire. Torino: Einaudi (English translation: Forms of Becoming. Princeton: Princeton University Press, 2009).

Striedter, G.F. 2005. Principles of Brain Evolution. Sunderland, MA: Sinauer.

In the Web:

The online journal Biolinguistics: www.biolinguistics.eu. Free Access.

Several publications of the Frontiers group, www.frontiers.org, accessible free and dealing with several topics of interest for the course.

### **Software**

Este campo está vacío.