- Course title: **Biochemistry**
- Course code: 5287
- Type of course: compulsory
- Level of course: fundamental
- Year of study: 3
- Semester: 1
- Number of credits allocated: 6
- Name of lecturer: Dolores Busto.
- Objective of the course:
    - To understand and to be able to explain the relevance of biochemical sciences and their applications.
    - To provide concepts and contents on biomolecules (i.e. proteins and nucleic acids) in relation to their structure and function.
    - To understand and to know how to explain the mechanisms of genetic information and its expression.
    - To understand and to be able to explain the mechanisms of biochemical transformations occurring in living beings.
    - To be able to explain experimental methods applied to research proteins and nucleic acids.
    - To understand basic techniques commonly used in the biochemistry lab.
    - To know how to search for and to use protein and nucleic acid databases commonly used in bioinformatics.
- Prerequisites: It is recommended that students should have attended Organic Chemistry I and II before following this course.
- Course contents:
    - Introduction: Concept and objectives of biochemistry.
    - Protein conformation and function.
    - Transmission of genetic information.
    - Bioenergetics. Generation and transformation of metabolic energy.
- Recommended reading:
    - Garrett, H.R., and Grisham, C.M. , (1999) Biochemistry, 2ª, Holt Rinehart and Winston
    - Mathews, C.K. and Van Holde, K.E., (2010) Biochemistry 4th Edition. Prentice Hall
    - Nelson, D. L. and Cox, M. M. (2004) Lehninger's principles of biochemistry. 4th Ed. W.H. Freeman,
    - Stryer, L., Berg, J.M. Tymoczko, J.L., (2009) Biochemistry, 8th Ed., W H Freeman.
    - Voet, D., Voet, J.G. Pratt, (2007) Biochemistry. John Wiley & Sons
- Teaching methods:
    - Lectures: teachers explain the contents of the lessons.
    - Seminars: students and teacher discuss the problems and other points raised in class.
    - Practicals: students apply their knowledge to solve laboratory experiments.
- Assessment methods:
    - Written work and exams: 55%
    - Resolution of problems, issues and other proposals: 20%
    - Laboratory work: 15%
    - Participation and attitude in lectures and seminars: 10%.
- Language of instruction: Spanish and/or English