Degree competences to which the subject contributes

Specific:

Transversal:
2. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.

Learning objectives of the subject
At the end of Biochemistry course, students should be able to solve exercises about:
- the relationship between the structure and function of biomolecules
- enzyme kinetics
- the main metabolic pathways

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group:</th>
<th>40h</th>
<th>26.67%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group:</td>
<td>20h</td>
<td>13.33%</td>
</tr>
<tr>
<td></td>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>
# Content

## BIOMOLECULES

- Learning time: 55h
  - Theory classes: 12h
  - Laboratory classes: 10h
  - Self study: 33h

**Description:**
- Chemical Principles of Biochemistry
- Proteins
- Carbohydrates
- Lipids and membranes
- Nucleic acids

## ENZYMES

- Learning time: 35h
  - Theory classes: 8h
  - Laboratory classes: 6h
  - Self study: 21h

**Description:**
- Enzymatic Kinetics
- Catalytic Strategies

## METABOLISM

- Learning time: 60h
  - Theory classes: 20h
  - Laboratory classes: 4h
  - Self study: 36h

**Description:**
- Metabolism Energy
- Catabolic pathway
- Anabolic pathway
- Regulation of Metabolism
# Planning of activities

| ACTIVITY 1: CLASSROOM LESSONS | Hours: 98h  
Theory classes: 38h  
Self study: 60h |
|-------------------------------|-------------------|
| ACTIVITY 2: INDIVIDUAL ASSESSMENT TESTS | Hours: 2h  
Theory classes: 2h |
| ACTIVITY 3: LABORATORY EXPERIMENTS | Hours: 35h  
Laboratory classes: 14h  
Self study: 21h |
| ACTIVITY 4: EXERCICES WITH COMPUTER | Hours: 15h  
Laboratory classes: 6h  
Self study: 9h |

## Qualification system

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## Bibliography

### Basic:


### Others resources:

- Computer material
  - BioRom
- ChemSktech