

Syllabus

Course description

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| Course title | Materials and sensors for Food Engineering and Biotechnologies |
| Course code | 46039 |
| Scientific sector | ING-INF/01 |
| Degree | PhD in Food Engineering and Biotechnologies |
| Semester | 1 |
| Year | 1 |
| Academic year | 2018/2019 |
| Credits | 3 |
| Modular | NO |

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| Total lecturing hours | 15 |
| Total lab hours | 10 |
| Total exercise hours | 5 |
| Attendance | |
| Prerequisites | none |
| Course page | |

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| Specific educational objectives | Basic understanding of materials and sensor technologies; experimental praxis with different sensors; practice with presentations and scientific writing |
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| Lecturer | Prof. Paolo Lugli |
| Scientific sector of the lecturer | ING-INF/01 |
| Teaching language | English |
| Office hours | 9 |
| Teaching assistant (if any) | |
| Office hours | |
| List of topics covered | Introduction to materials and nanostructures, sensor technologies, fabrication techniques, printing techniques, additive manufacturing; overview of the application in the fields of biotechnology, food engineering and agriculture |
| Teaching format | Frontal lectures, individual literature review, presentation on a given topic, small practical project |

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| Learning outcomes | <p>Knowledge and understanding: theoretical know-how on sensor technologies and materials</p> <p>Applying Knowledge and understanding: practical know-how on sensor technologies and materials</p> <p>Making judgments:</p> <p>Communication skills: ability to give a presentation</p> |
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| | <p>supported by power-point</p> <p>Learning skills: performing a literature review on a given topic; extracting the most valuable information and embedding it in a presentation, scientific writing</p> |
| Assessment | Presentation and project |
| Assessment language | English |
| Evaluation criteria and criteria for awarding marks | Quality of the presentation, engagement in the lab project |
| Required readings | Assigned in class |
| Supplementary readings | Assigned in class |