# 06. BIOLOGY AND REPRODUCTIVE TECHNOLOGIES

## Department of Experimental and Clinical Medicine (DMSC)

### Level II

<table>
<thead>
<tr>
<th>Course coordinator</th>
<th>Elisabetta Baldi</th>
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</table>
| Executive Committee | Linda Vignozzi  
Michaela Luconi  
Csilla Krausz  
Sara Marchiani  
Monica Muratori |

### Contact person for information regarding teaching organization, class schedule, content of the course

Elisabetta Baldi  
elisabetta.baldi@unifi.it

### Practical-professional profile of the course and industry sector of reference

The course aims to provide highly specialized skills in the field of techniques and technologies for the selection and evaluation of the characteristics of the two gametes, techniques and technologies used in assisted reproduction laboratories, and the primary diagnostic methodologies of male and female infertility, making use of both lectures and a practical part to be carried out at specialized laboratories.

Specifically, the course trains biologists/biotechnologists who will be able to find employment in public and private medically assisted reproduction centers and public and private infertility diagnostic laboratories.

To this end, the training activities will be divided into face-to-face lectures and structured practical courses within accredited or certified centers and laboratories in order to ensure adequate mentoring of participants.

By the end of the course, learners will have acquired high levels of skills and competence inherent in the techniques and technologies applied in human-assisted reproduction.

### Access prerequisites

Master's degree obtained in accordance with the system under Ministerial Decree No. 270/2004 (or specialist degree under Ministerial Decree No. 509/1999 equated under I.D. July 9, 2009) in one of the following classes:

- LM-6 Biology;
- LM-8 Industrial Biotechnology;
- LM-9 Medical, Veterinary, and Pharmaceutical Biotechnology;

Degree awarded according to a system prior to Ministerial Decree No. 509/1999 in:

- Biotechnology - Medical biotechnology curriculum
- Biotechnologies
- Biology

Degree awarded according to a system prior to Ministerial Decree No. 509/1999 of closely related content, deemed suitable by the Executive Committee or a Commission specifically appointed by it.

### How the admission procedure takes place

Selection by academic qualifications

### Duration

9 months

### Teaching methods

Distance learning, synchronous, via Moodle platform (Webex)

### Language of instruction

Italian

### Attendance requirements

70%

### Location of the course

Offices of the Department  
Florence Center for Out-patient Surgery, Viale Matteotti, 4 - Florence  
Centro Demetra S.r.l, Via Giulio Caccini, 18 - Florence

### Foreseen lecture schedule

1 week per month, Monday through Friday, 9 a.m. to 6 p.m
<table>
<thead>
<tr>
<th>Examinations procedures and schedule</th>
<th>3 midterm tests that consist of multiple-choice tests, one every 2 months.</th>
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<tbody>
<tr>
<td>Final examination</td>
<td>The final examination consists of the presentation of a final paper.</td>
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<tr>
<th>Available places and enrolment fees</th>
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<tbody>
<tr>
<td><strong>Full-fee students</strong></td>
</tr>
<tr>
<td>Minimum number</td>
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<tr>
<td>Maximum Number</td>
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<tr>
<td>Enrolment fee</td>
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<tr>
<td><strong>Free-of-charge supernumerary places</strong></td>
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<td>UNIFI employees</td>
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<td>AOU Careggi Employees</td>
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<th>SINGLE MODULES</th>
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<td>None planned</td>
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**Description of the activities and training objectives of the internship**

The internship aims to:
- acquire specific technical skills in semen analysis, semen preparation for MAP techniques, and semen cryopreservation;
- learn techniques for assessing sperm DNA fragmentation and sperm chromatin compaction;
- acquire skills regarding assisted fertilization techniques (in vitro insemination, ICSI, and embryo culture), oocyte cryopreservation, and embryo cryopreservation;
- deepen knowledge regarding embryo quality assessment;
- gain in-depth knowledge of tests used for genetic diagnosis of male infertility and prenatal diagnosis.

Observational activity. 200 total hours of internship.

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1 This document is a translation of the form A.1 relating to the characteristics of the course attached to the Decree of the Deputy number 873 (record 158006) of 25th of July 2022, drafted in Italian and issued on the Master | Didattica | Università degli Studi di Firenze | UniFI and which therefore constitutes the only official document. This English translation cannot be used for legal purposes and has the sole purpose of supplying information in English on the content of the public notice.