The PhD Course in Bioengineering

Welcome Phd Day – 11.11.2020

Andrea Aliverti, chairman

andrea.aliverti@polimi.it
the Chairman
Prof. Andrea Aliverti
and PhD Course Board
are pleased to invite you to

Online Event
Welcome Day
PhD Student
Bioengineering course
36\textsuperscript{cycle}

Wednesday
November 11
h: 09,30

Fai clic qui per partecipare alla riunione

http://www.phdbioengineering.polimi.it/
Politecnico di Milano
PhD School

19 Programmes
1200+ PhD students
>300 new PhD students per year
(>90% of them earn grants or research contracts)

~ 30% International students

150-200 third-level courses, held by Italian and International Experts
http://www.dottorato.polimi.it/en/index.html
PhD Programmes

**Engineering**
- Aerospace Engineering
- **Bioengineering**
- Data analytics and Decision systems
- Electrical Engineering
- Energy and Nuclear Science and Technology (STEN)
- Environmental and Infrastructure Engineering
- Industrial Chemistry and Chemical Engineering
- Information Technology
- Management, Economics and Industrial Engineering (DRIG)
- Materials Engineering
- Mathematical Models and Methods in Engineering
- Mechanical Engineering
- Physics
- Structural Seismic and Geotechnical Engineering

**Architecture & Design**
- Architecture, Built Environment and Construction Engineering (ABC)
- Architectural, Urban and Interior Design (PAUI)
- Design
- Preservation of Architectural Heritage
- Urban Planning, Design, and Policy
PhD Course in Bioengineering

The Doctoral (PhD) Programme in Bioengineering trains graduate students through the development of a research project developing engineering methodologies and/or innovative technology which involve biological or physiological systems and health sciences.

Methods, devices, and systems are developed with a multidisciplinary approach, considering problems at different possible scales (from the molecular and cellular level to complex living organisms and systems), with the objective of improving diagnosis, therapy or health structures and services.

These competences prepare PhD candidates to work in research, either in private or public context as well as in industry or academia.
PhD curriculum: research

Specific areas include but are not limited to: molecular and cellular engineering, biomaterials, tissue engineering, bio-artificial interfaces and devices, neuro-prostheses, movement analysis, cardiovascular and respiratory system bioengineering, central nervous system signal and image processing for rehabilitation, biomechanics, computational fluid-dynamics, computer assisted surgery and radiotherapy, artificial organs, implantable devices, biomedical signal and image processing, e-health, bioinformatics, robotics and functional genomics.

Research focuses on theoretical models, methods, and technologies to support design of applications, software and hardware systems, together with tools and prototype devices.

The involvement of industrial and clinical partners reinforces the mix between theory and application, which is the strength of PhD in Bioengineering.
The PhD Program in Bioengineering is organized with an inter-departmental structure.

Faculty members of the PhD Board belong to two Departments:
- **DEIB** (Department of Electronics, Information and Bioengineering)
- **CMIC** (Department of Chemistry, Materials and Chemical Engineering “G. Natta”)

All administrative issues are managed at DEIB.
Board of Professors

Aliverti Andrea – DEIB (Chair)
Bianchi Anna Maria - DEIB
Boschetti Federica - CMIC
Candiani Gabriele - CMIC
Cerveri Pietro - DEIB
Cimolin Veronica - DEIB
Costantino Maria Laura - CMIC
Dellacà Raffaele - DEIB
De Momi Elena - DEIB
Draghi Lorenza- CMIC
Farè Silvia - CMIC
Ferrante Simona - DEIB
Fiore Gianfranco B. - DEIB
Gastaldi Dario - CMIC
Guazzoni Chiara - DEIB
Mainardi Luca T. - DEIB
Mantero Sara – CMIC (vice-Chair)
Pattini Linda - DEIB
Pennati Giancarlo - CMIC
Pozzi Giuseppe - DEIB
Ravazzani Paolo – CNR (vice-Chair)
Redaelli Alberto C. - DEIB
Rodriguez-Mata Josè - CMIC
Signorini Maria G. - DEIB
Soncini Monica - DEIB
Villa Tomaso - CMIC
PhD candidate workload: $\geq 30$ CFU
(5 CFU $\sim 25$h)
$\geq 10$ CFU: soft and transferable skills
$\geq 15$ CFU: disciplinary skills

PhD development – Workload distribution

1$^{st}$ year
2$^{nd}$ year
3$^{rd}$ year

study  thesis
PhD curriculum

Research

Courses

Personal development

*PhD is a full time activity, usually over three (or four) years*
PhD Research - Laboratories

- Biocompatibility and Cell culture Lab (BioCell) - CMIC, Polimi
- Biomaterials laboratory (BioMatLab) - CMIC, Polimi
- Biomedical Technology Lab (TBMLab) - DEIB, Polimi
- Bioreactors and Mechanical Testing Laboratory - CMIC, Polimi
- Biosignals, Bioimaging and Bioinformatics (B3 lab) - DEIB, Polimi
- Computational Biomechanics Lab (CB Lab) - DEIB, Polimi
- Experimental Micro and Biofluid dynamics (µBS Lab) - DEIB, Polimi
- Engineering for Health and Wellbeing Group - I EIIT, CNR
- Laboratory of Biological Structure Mechanics (LaBS) - CMIC, Polimi
- Laboratory of movement analysis “Luigi Divieti” - DEIB, Polimi
- Materials for Biomedical Application and Biomimetic Treatments (CMIC, Polimi)
- Medical Informatics laboratory (e-Health Lab) – DEIB, Polimi
- Neuroengineering and medical robotics Laboratory (NearLab) - DEIB, Polimi

→ + EXTERNAL FACILITIES, LABS, HOSPITALS
Courses (not the main focus of your studies, to complement your preparation)

- A minimum number of 30 ECTS credits is required to earn,
- at least 10 credits (min 10, max 25) (corresponding to 2 PhD School courses) shall be obtained through soft and transferable skills courses organized by the PhD School
- at least 15 credits (min 15, max 20) shall be obtained through courses yearly offered by the PhD Programme in Bioengineering, which are specific of the Bioengineering area (‘characterizing courses’). → A minimum of one Annual Bioengineering School (Bressanone), providing 5 credits, is required
<table>
<thead>
<tr>
<th>Courses</th>
<th>Possible details or reference to following tables</th>
<th>Number of credits (min-max)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD School Courses</td>
<td></td>
<td>10 – 15</td>
<td></td>
</tr>
<tr>
<td>Courses characterising the PhD Programme</td>
<td></td>
<td>15 – 20</td>
<td>Minimum 1 Annual Bioengineering School (Bressanone)</td>
</tr>
<tr>
<td>Other PhD courses</td>
<td>[specify]</td>
<td>0 - 10</td>
<td></td>
</tr>
</tbody>
</table>
PhD School courses → focused on soft and transferable skills

http://www.dottorato.polimi.it/en/during-your-phd/phd-level-courses/index.html
### Table A: PHD COURSES CHARACTERISING THE PHD PROGRAMME

<table>
<thead>
<tr>
<th>Codice</th>
<th>Denominazione Insegnamento</th>
<th>Tipo</th>
<th>CFU</th>
<th>VISIBILITA</th>
<th>Periodo di svolgimento</th>
<th>Professor</th>
<th>Studenti di nuova frequenza</th>
<th>elenco studenti</th>
</tr>
</thead>
<tbody>
<tr>
<td>053571</td>
<td>ADVANCED MODELLING IN BIOMECHANICS</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>25 gen 2021 - 29 gen 2021</td>
<td>Rodriguez Matas Jose Felix (Titolare Aff. Trasf. cfu: 2)&lt;br&gt;Gastaldi Dario (Altro Docente Aff. Trasf. cfu: 1)&lt;br&gt;Vena Pasquale (Altro Docente Aff. Trasf. cfu: 1)&lt;br&gt;Vesentini Simone (Altro Docente Aff. cfu: 1)</td>
<td>5</td>
<td>elenco studenti</td>
</tr>
<tr>
<td>056458</td>
<td>ANNUAL SCHOOL OF BIOENGINEERING - BRESCANONE 2021</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>13 set 2021 - 16 set 2021</td>
<td>Aliverti Andrea (Titolare Aff. cfu: 5)&lt;br&gt;</td>
<td>7</td>
<td>elenco studenti</td>
</tr>
<tr>
<td>055108</td>
<td>BIOSTATISTICS AND EXPERIMENTAL DESIGN</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>26 apr 2021 - 11 mag 2021</td>
<td>Mainardi Luca (Titolare Aff. cfu: 2)&lt;br&gt;Caiani Enrico Gianluca (Altro Docente Aff. cfu: 1)&lt;br&gt;Pattini Linda (Altro Docente Aff. cfu: 2)</td>
<td>5</td>
<td>elenco studenti</td>
</tr>
<tr>
<td>053570</td>
<td>ELECTRONIC TECHNOLOGY IN BIOMEDICAL ENGINEERING</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>27 set 2021 - 12 ott 2021</td>
<td>Ferrante Simona (Titolare Aff. Trasf. cfu: 3)&lt;br&gt;Picini Luca (Altro Docente Contr. cfu: 2)</td>
<td>2</td>
<td>elenco studenti</td>
</tr>
<tr>
<td>051060</td>
<td>EXTERNAL COURSE BIO</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>01 nov 2020 - 31 ott 2021</td>
<td>Aliverti Andrea (Titolare Aff. cfu: 5)&lt;br&gt;</td>
<td>2</td>
<td>elenco studenti</td>
</tr>
<tr>
<td>056460</td>
<td>PERSPECTIVES IN BIOMEDICAL ENGINEERING TECHNOLOGIES: ROBOTICS FOR REHABILITATION, ASSISTIVE APPLICATIONS AND MINIMALLY INVASIVE THERAPY</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>01 mar 2021 - 12 mar 2021</td>
<td>Redaelli Alberto Cesare Luigi (Coordinatore Non def. cfu: --)&lt;br&gt;De Momi Elena (Altro Docente Aff. cfu: 1)&lt;br&gt;Masia Lorenzo (Altro Docente Contr. cfu: 2)&lt;br&gt;Menciassi Arianna (Altro Docente Contr. cfu: 2)</td>
<td>2</td>
<td>elenco studenti</td>
</tr>
<tr>
<td>055111</td>
<td>SEMINARS IN BIOMEDICAL ENGINEERING</td>
<td>M</td>
<td>5.00</td>
<td>nascondi</td>
<td>01 nov 2020 - 31 ott 2021</td>
<td>Soncini Monica (Titolare Aff. Trasf. cfu: 1)&lt;br&gt;Barbieri Riccardo (Altro Docente Aff. cfu: 1)&lt;br&gt;Candiani Gabriele (Altro Docente Aff. cfu: 1)&lt;br&gt;Dellaca' Raffaele (Altro Docente Aff. cfu: 1)&lt;br&gt;Villa Tomaso Maria Tobia (Altro Docente Aff. cfu: 1)</td>
<td>1</td>
<td>elenco studenti</td>
</tr>
</tbody>
</table>

### Table B: SUGGESTED CROSS –SECTORAL COURSES

<table>
<thead>
<tr>
<th>SSD</th>
<th>Name of the Course</th>
<th>Professor</th>
<th>Semester</th>
<th>Language</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Ethics in research</td>
<td>Aliverti Andrea</td>
<td></td>
<td>English</td>
<td>5</td>
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</tbody>
</table>
PhD Education - the National School of the Italian Bioengineering Group (GNB)

Among the **PhD courses**, the GNB School is held every year for one week on themes of advanced research in bioengineering through the participation of highly qualified teachers.

The School is held in Brixen (near Bolzano) and offers also the unique opportunity to put together students from different Doctoral programs in Bioengineering and neighbouring field in Italy.

1 session of the School is mandatory in the study plan
The Annual School of the National Bioengineering Group (GNB) is held yearly for one week in Bressanone (Bz). Every year, the School is focused on different topics. As examples, the themes of the last few years have been: E-Health and digital medicine (2017), Biomedical Images (2018), Advanced technique in Surgery (2019), AI-enabled health care: from decision support to autonomous robots (2020).

This year the topic of the School will be on

**BIOFABRICATION: AN INTEGRATED, BIOENGINEERING APPROACH FOR AUTOMATIC BUILDING OF BIOLOGICAL STRUCTURES FOR RESEARCH AND CLINICAL APPLICATION**
Study Plan

Study plan submission

Each PhD candidate must submit his/her study plan online.

Candidates will have the opportunity to review it periodically in order to adapt it to possible changes in the training offer or to needs justified by the development of his/her educational activity.

The study plan is submitted for approval to the Coordinator
PhD enrolled on November, 1st

<table>
<thead>
<tr>
<th>Cognome</th>
<th>Nome</th>
</tr>
</thead>
<tbody>
<tr>
<td>BORDIN</td>
<td>VALENTINA</td>
</tr>
<tr>
<td>CAMUNCOLI</td>
<td>FEDERICA</td>
</tr>
<tr>
<td>CESTARIOLO</td>
<td>LUDOVICA</td>
</tr>
<tr>
<td>DANIELLI</td>
<td>FRANCESCA</td>
</tr>
<tr>
<td>FARABBI</td>
<td>ANDREA</td>
</tr>
<tr>
<td>FRANCESCHETTI</td>
<td>ANDREA</td>
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<tr>
<td>GRILLO</td>
<td>MASSIMO</td>
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<tr>
<td>GUAGLIANO</td>
<td>GIUSEPPE</td>
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<tr>
<td>LAGOMARSINO</td>
<td>MARTA</td>
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<tr>
<td>PITTON</td>
<td>MATTEO</td>
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<td>POTERE</td>
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<td>PREDELLA</td>
<td>CAMILLA</td>
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<tr>
<td>RIZZI</td>
<td>STEFANO</td>
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<tr>
<td>ROBBIANI</td>
<td>STEFANO</td>
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<tr>
<td>SALURSO</td>
<td>ELEONORA</td>
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<tr>
<td>FANIZZA</td>
<td>FRANCESCA</td>
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<tr>
<td>PEDERZANI</td>
<td>ELIA</td>
</tr>
<tr>
<td>TAURO</td>
<td>EMANUELE</td>
</tr>
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</table>

Isella, Pellegatta, Ghezzi, Di Gravina senza borsa
PLEASE FILL IN THE FOLLOWING FORM

https://forms.office.com/Pages/ResponsePage.aspx?id=K3EXCvNtXUKAjjCd8ope6xl0rgQnsWBNjYqVklbZX8pUNTRGUUZFWDlQT1RI
MTNOQzNOQ0Y2STJXOC4u
For other informations about the payment and the deadlines please look at the site:

Current career status
Career status: ACTIVE
Payments status: Fees paid until 01/11/2020

Career References
It's mandatory to check and eventually contact the coordinator in order to fix all the informations regarding the referents of the thesis (supervisor, correlator tutor) before registering for the final exam.

Scientific-Disciplinary Sector: ELECTRONIC AND INFORMATICS BIOENGINEERING
Administrative department: Department of Electronics, Information and Bioengineering

Thematic Classification: 10255416 - ALVERTI ANDREA
Supervisor: 10066463 - FERRIGNO GIANCARLO
Tutor: 10137796 - REDDELLI ALBERTO CESARE LUIGI

Research topic and abstract
The research topic represent the title of the research work, while the abstract is a short summary of it. The informations can be modified until the end of the PhD course and they are visible to the coordinator of the course.
The **Tutor** monitors and reviews the duties, the study plan and the activities of the candidate and acts as the ‘interface’ between the PhD candidate and the PhD Board.

In agreement with the PhD candidate proposal, the PhD Board nominates one or two **Advisor/s** who directly support the PhD candidate in his/her research activity.

→ Supervisors and tutor are to be agreed with your PhD Program Coordinator
PHD FUNDS : HOW TO USE/SPEND MONEY

Dote: Euro 3,068.66 → complessivi per i 3 anni
Your budget: Euro 3,068.66 → total sum to spend for 3 years

Missioni: Utilizzando la dote → fondo di dottorato
Travel assignment: Using your budget → segreteria dottorato
(phd-bio@polimi.it)
tel 02.2399.3632
contact person: Marco Simonini
marco.simonini@polimi.it

Missioni: Utilizzando fondo Docente
Travel assignment: Using Professor funds
→ fondo docente
→ amministrazione
tel (022399)3630
contact person: Dora Ivanof
elizabet.ivanof@polimi.it
PhD opportunities: Internationalization

- A period abroad is strongly encouraged
  - suggested at least 3 months,
  - up to 18 months abroad

- If you have a scholarship by Politecnico di Milano there is 50% stipend increase (€ 500 per month)

- Shorter stays (at least 3 months) in Europe qualify for the **Doctor Europaeus** certification (see regulations)
Annual evaluations

**Yearly evaluation:** based on credits and course grades and on the results achieved with the research performed. It is an exam, a grade is assigned.

**Admission to final exam:** based on the overall course and research achievements. It is an exam, a grade is assigned.

**Final exam:** Evaluation committee mainly external.
# Time Table

## Yearly Evaluation

<table>
<thead>
<tr>
<th>Date</th>
<th>1 Year</th>
<th>2 Year</th>
<th>3 Year</th>
</tr>
</thead>
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<tr>
<td>01-nov 1</td>
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<td>01-nov 25</td>
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<tr>
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<td>01-nov 13</td>
<td>01-nov 25</td>
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<tr>
<td>01-dic 2</td>
<td>01-dic 14</td>
<td>01-dic 26</td>
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<tr>
<td>30-dic 2</td>
<td>01-dic 14</td>
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</tr>
<tr>
<td>01-gen 3</td>
<td>01-gen 15</td>
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<tr>
<td>30-gen 3</td>
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<td>01-feb 4</td>
<td>01-feb 16</td>
<td>01-feb 28</td>
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<tr>
<td>01-mar 5</td>
<td>01-mar 17</td>
<td>01-mar 29</td>
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<tr>
<td>01-apr 6</td>
<td>01-apr 18</td>
<td>01-apr 30</td>
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<tr>
<td>01-mag 7</td>
<td>Report submission</td>
<td>01-mag 31</td>
<td></td>
</tr>
<tr>
<td>30-mag 7</td>
<td>Report submission</td>
<td>Report submission</td>
<td></td>
</tr>
<tr>
<td>01-giu 8</td>
<td>mid term evaluation</td>
<td>01-giu 32</td>
<td></td>
</tr>
<tr>
<td>30-giu 8</td>
<td>mid term evaluation</td>
<td>admission final exam</td>
<td></td>
</tr>
<tr>
<td>01-lug 9</td>
<td>Report submission</td>
<td>01-lug 33</td>
<td></td>
</tr>
<tr>
<td>30-lug 9</td>
<td>Report submission</td>
<td>Report submission</td>
<td></td>
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<tr>
<td>01-ago 10</td>
<td>yearly evaluation</td>
<td>01-ago 34</td>
<td></td>
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<tr>
<td>30-ago 10</td>
<td>yearly evaluation</td>
<td>Start of procedures for final defense</td>
<td></td>
</tr>
<tr>
<td>01-set 11</td>
<td>yearly evaluation</td>
<td>01-set 35</td>
<td></td>
</tr>
<tr>
<td>30-set 11</td>
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<td>01-nov 01</td>
<td>01-nov 01</td>
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<tr>
<td>30-nov 01</td>
<td>01-nov 01</td>
<td>01-nov 01</td>
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</tbody>
</table>

**Note**:
- **Report submission** is due on specific dates.
- **Evaluation** is scheduled on specific dates.
- **Mid term evaluation** is due on specific dates.
- **Admission final exam** is scheduled on specific dates.
PhD in Bioengineering - New ways of Evaluation of the FIRST year

Exam procedure

The transition from the first to the second year requires an exam interview with presentation by the PhD student with the Tutor and in the presence of the Supervisor.

Tutor, PhD students and supervisor agree on the date of the exam interview, to be established within the time interval indicated by the Doctoral Secretariat.

At the date of the exam interview, the Supervisor must have already completed and filed his report with relative assessment; the presentation by the PhD student in English has a maximum duration of 15 minutes, followed by questions from the Tutor.

In this presentation, the PhD student exposes:
- state of art;
- objective(s) of the work;
- expected methodologies;
- work plan including time course (Gantt Chart);
- possible critical issues;
- preliminary results;
- List of publications and participation in conferences;
- List of planned courses (already taken and scheduled).
Exam procedure

The exam includes an interview in English with presentation by the PhD student with the Commission and in the presence of the Supervisor and Co-adviser (invited to the exam). The doctoral secretariat establishes the date of the exam interview and informs the Commission and doctoral candidates. At the date of the exam interview, the Supervisor must have already completed and filed his report with relative assessment. The presentation by the PhD student has a maximum duration of 20 minutes, followed by a discussion with the Commission.

In this presentation, the PhD student exposes:

- Context, open issues and objective of the doctoral work (about 5 minutes);
- Presentation of the activity carried out (e.g. methodologies, results obtained so far) (about 12 min);
- Planning of the activities to be carried out including the time course (Gantt Chart) - highlighting any periods abroad;
- Complete list of publications divided into magazines, books and conference proceedings;
- Complete list of courses taken and to be supported.
Exam procedure

The exam includes an interview in English with presentation by the PhD student with the Commission and in the presence of the Supervisor and Co-adviser (invited to the exam).

The doctoral secretariat establishes the date of the exam interview and informs the Commission and doctoral candidates. At the date of the exam interview, the Supervisor must have already completed and filed his report with relative assessment. The presentation by the PhD student has a maximum duration of 25 minutes, followed by a discussion with the Commission. In this presentation, the PhD student exposes:

- Context, open and objective issues of the doctoral work;
- Presentation of the activity carried out;
- Presentation and discussion of the results obtained;
- Residual activities and related timing;
- Thesis structure and drafting progress
- Complete list of publications divided into magazines, book chapter and conference proceedings;
- Complete list of all courses.
# Periodic Scientific Report

<table>
<thead>
<tr>
<th>Report*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle</td>
</tr>
<tr>
<td>Year**</td>
</tr>
<tr>
<td>PhD Student</td>
</tr>
<tr>
<td>Advisor(s)</td>
</tr>
<tr>
<td>Tutor</td>
</tr>
<tr>
<td>Executive PhD***</td>
</tr>
</tbody>
</table>

*Please, insert Annual Activity or 6-Months Activity; **Year of the course; ***Insert YES or NO

<table>
<thead>
<tr>
<th>Title of the PhD thesis*</th>
</tr>
</thead>
</table>

*Only for the final year of the PhD Course

<table>
<thead>
<tr>
<th>Short description of the main objective of the PhD Course of the student</th>
</tr>
</thead>
</table>
Grades

At every yearly evaluation, the candidate receives an evaluation. Grades are A (excellent), B (very good), C (good), D (fair), E (not sufficient to pass the exam).

In the case of grades from A to D, the candidate is admitted either to the next year (1st and 2nd year evaluation) or to the final exam (3rd year evaluation).

In the case of grade E, the candidate is qualified either as “Repeating” (E-R) or “not able to carry on with the PhD” (E-I).

At the end of the last year the candidate receives an overall evaluation, with the same grading system as described above. On that basis, her/his admission to the final PhD exam is deliberated.
‘Extension’ (4th year registration)

In some cases the candidate can obtain an extension of a maximum of 6 or 12 months, even if she/he has achieved sufficient results but still needs additional time to finalize the thesis.
Final exam

Schedule of the Day

11.00-11.30
Committee Meeting

11.30-12.30
First Ph.D. presentation and discussion

Dr. Ilaria LIORNI – XXVIII Cycle
“Electromagnetic Fields Exposure Assessment in the Early Life: From Prenatal Stage to Infancy”
Supervisors: Profs. Marta Parazzini, Paolo Giuseppe Ravazzani

12.30-13.30
Second Ph.D. presentation and discussion

Dr. Francesco PICCAGLI – XXVII Cycle
“Percutaneous Transluminal Angioplasty PTA balloon stretch blow molding process: development of a numerical model and optimization for lean design”
Supervisor: Profs. Gabriele Dubini, Roberto Ghidini

Lunch

14.30
Final Committee Meeting

15.00
Proclamation

Committee Members

Graziano CERRI
Professor
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The Examination Committee is usually composed by three or four members: two/three external (typically, one of them chosen among the two reviewers of the thesis) and one chosen among the members of the PhD Board.

The Examination Committee should consider in the evaluation: a) the quality of the thesis; b) the scientific value of the PhD research project; c) the quality of the presentation; and d) the quality and number of publications related to the PhD project.

The Examination Committee, finally, decides about awarding the candidate with the PhD title, eventually by accompanying the award with ‘cum laude’.
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