



PhD Program in Information Technology for Engineering

41st Cycle

Prof. Massimiliano Di Penta

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Outline

- Offices, doctorate board, website
- Study plan, courses, credits, exams
- Spending budget
- Travels and internships
- Research ethics
- Reporting activities

ADMINISTRATIVE OFFICES



Doctorate Office

- <https://www.unisannio.it/ateneo/uffici-amministrativi/area-servizi/uo-post-laurea>
- Staff
 - Iolanda Manicatori (head)
 - Laura Lombardi
 - Francesca Lombardi

Engineering Department

- <https://www.unisannio.it/ateneo/uffici-amministrativi/area-sistemi/uo-dipartimento-ding-segreteria-di-direzione>
- <https://www.unisannio.it/ateneo/uffici-amministrativi/area-sistemi/uo-centrale-acquisti-e-contabilit -dipartimentale>
- Dr. Antonella Micco (any communication)
- Sig. Giuseppe Nappi (travels & reimbursements)
- Sig. Alberto Mainardi (travel & reimbursements)
- Rossana De Nisi (purchases)

How to submit any enquiry

To me (dipenta@unisannio.it)

cced to Antonella Micco (antonella.micco@unisannio.it)

Please do not send the email to me only. It may get lost!

SCIENTIFIC COMMITTEE

— DOCTORATE PROGRAM —



Doctoral Board “Collegio dei Docenti”

- **Coordinator:** Prof. Massimiliano Di Penta
- **Deputy Coordinator:** Prof. Daniele Davino
- **Student representative:** Gregorio Dalia
- **Board:** Proff. Mario Luca Bernardi, Menita Carozza, Giuseppe Castaldi, Pasquale Daponte, Daniele Davino, Alessandra De Angelis, Carmen Del Vecchio, Luca De Vito, Massimiliano Di Penta, Mariano Gallo, Emma Frosina, Luigi Iannelli, Erasmo Mancusi, Gustavo Marini, Michelina Monaco, Antonio Pecchia, Francesco Pepe, Vincenzo Pierro, Marco Pisco, Andrea Ricciardi, Carlo Roselli, Maurizio Sasso, Stefania Sica, Roberto Tartaglia, Silvia Liberata Ullo, Alfredo Vaccaro, Corrado Aaron Visaggio, Eugenio Zimeo

PhD program webpage

<https://www.unisannio.it/en/didattica/corsi-di-studio/dottorato-di-ricerca/dottorato-tecnologie-informazione-ingegneria>

The screenshot shows a web browser window displaying the PhD program webpage. The browser's address bar shows the URL: <https://www.unisannio.it/en/didattica/corsi-di-studio/dottorato-di-ricerca/dottorato-tecnologie-informazione-ingegneria>. The browser's tab bar shows four tabs: "Doctorate in Information Technology for Engin...", "Servizi per gli studenti | Università degli Studi...", "Homepage area pubblica, Università di UNISA...", and "Guida Online, Università di UNISANNIO". The webpage has a navigation bar with links: "Future student", "Student", "Company/Public", "Staff", and "Community". On the right side of the navigation bar, there are icons for user profile, home, language (UK flag), a language dropdown menu set to "en", a search bar with the text "Search", and a magnifying glass icon. Below the navigation bar, there is a dark blue header with the text "Doctorate in Information Technology for Engineering". Below the header, there is a row of buttons: "View", "Edit", "Delete", and "Translate". Below the buttons, there is a section titled "Informazioni generali" with a red triangle icon. The section contains the following information: "Course type: Ph.D.", "Regulations: Decreto Ministeriale del 8 febbraio 2013 n. 45", "Code: 999", "Qualification for entrance: Laurea magistrale", "Access mode: Concorso", "Duration in years: 3", "Credits: 180", and "Didactic organization structure: Department of Engineering (DING)".

Doctorate in Information Technology for Engineering

View Edit Delete Translate

Informazioni generali

Course type: Ph.D.

Regulations: Decreto Ministeriale del 8 febbraio 2013 n. 45

Code: 999

Qualification for entrance: Laurea magistrale

Access mode: Concorso

Duration in years: 3

Credits: 180

Didactic organization structure: Department of Engineering (DING)

STUDY PLAN

GOALS

- Short Term
- Long Term
- Achieve!

STUDY SCHEDULE

TEST PREP

-
-
-
-

To Do List

-
-
-
-

Mon	Tue	Wed	Thu	Fri	Fri

TIPS

-
-
-

Study plan

1st year	2nd year	3rd year
60 credits	60 credits	60 credits

Study plan - 1st year

Description	Credits (CFU)
Courses	18
Individual study and research	40
Reporting	2

Study plan - 2nd year

Description	Credits (CFU)
Courses	6
Individual study and research	52
Reporting	2

Study plan - 3rd year

Description	Credits (CFU)
Individual study and research	40
Thesis	20

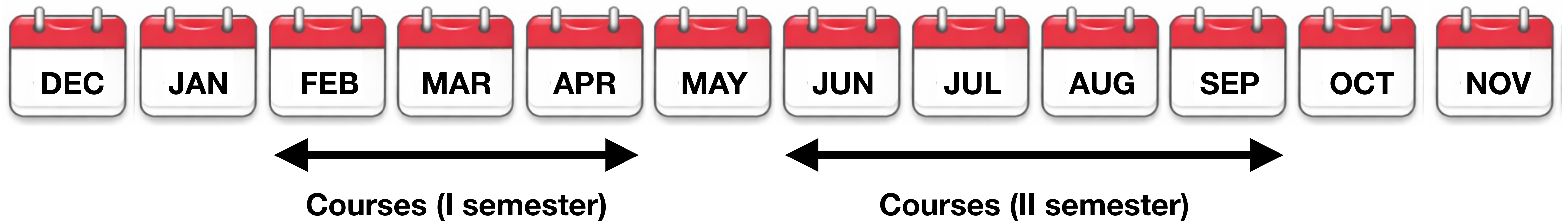
Courses - Rules

- **Compulsory:** Research organization and technical writing, 4 CFU
- **Compulsory:** English, 6 CFU (C1 level), unless you present an equivalent certificate or you are a native speaker (in that case you can cover those credits differently)
- The remaining 14 credits can be chosen as follows:
 - From the PhD program courses
 - Max 9 credits from external courses and PhD schools

Attending courses and exams

- For the PhD program, we still try to give the “online” option for many courses, except for the laboratory ones
- Attendance is not strictly required (highly suggested, especially for laboratory courses)
- At the end of each course, you must pass an exam (how this works is set by the professor teaching that course)

Semesters



Courses are organized (with some flexibility) in 2 semesters:

- December-April (courses typically from February to April)
- May-November (courses typically from June to September)

Other courses (outside the Department)

- Other PhD program courses: need to ask permission to the other PhD coordinators
- PhD school courses and courses from other Universities: 1 CFU for 6 hours of lectures, exam necessary. No grade will be provided/counted. Certificate necessary
- Approval from the coordinator is needed in all cases
- **BsC and MsC courses do not qualify**

Summary (I semester)

Course	CFU
ADVANCED LABORATORY	4
MEASUREMENT FOR DRONES	4
STRATEGIC ORIENTATION FOR STEM RESEARCH AND WRITING	4
VISION - BASED MEASUREMENT FOR CRITICAL INFRASTRUCTURES MONITORING	6
BUILDING ENERGY MODELING, SIMULATION AND OPTIMIZATION	4
SOIL STRUCTURE INTERACTION AND SMART MONITORING USING OPTICAL FIBER SENSORS	6
ENGLISH	6

Summary (II semester)

Course	CFU
OPTICAL AND RADAR REMOTE SENSING	4
ADVANCED TECHNOLOGIES FOR CLIMATE CHANGE MITIGATION	6
MACHINE LEARNING AND EMPIRICAL METHODS	4
RESEARCH MANAGEMENT AND FUNDING AT THE EUROPEAN AND INTERNATIONAL LEVEL	3
DEEP LEARNING: THEORY, APPLICATIONS AND FRAMEWORKS	4
FUNDAMENTALS OF QUANTUM MECHANICS AND QUANTUM COMPUTER	4
NUMERICAL ANALYSIS WITH MATLAB	6
FROM THE IDEA TO THE COMPANY - TOOLS AND METHODOLOGIES FOR THE CREATION OF STARTUPS	3
COMPUTATIONAL MODELING AND EXPERIMENTAL TESTING OF MULTI-PHYSICS PHENOMENA AND DEVICES	6
EXPERIMENTAL AND OPERATIONAL MODAL ANALYSIS FOR STRUCTURES, INFRASTRUCTURES AND SYSTEMS	6

Compiling the study plan

- You will be asked to do it within two time windows every year
 - Dec-Jan
 - April-May
- Also, you will be asked to fill an attendance form so that professors teaching each course could plan the lectures properly

Spending your budget



Budget for Expenses

- Budget reserved for you by the PhD program: ~ 1600 € per year
- You can spend it for:
 - Schools
 - Conferences (registration, travel)
 - Equipment (with a threshold)
- **Anything else is on the shoulders of your PhD advisor**

Rules

- For the detailed procedures, please ask the administration people
- Expenses on the PhD budget need to be approved by your advisor
- Expenses on other budget (e.g., your advisor) need to be approved by whoever is responsible of that fund
- General rules:
 - Purchases normally don't go by reimbursement
 - Travel expenses are typically anticipated and you get reimbursed after (be careful with receipts and following all constraints the administration has)

Infrastructures

- Equipment provided by your advisor/research group, plus some shared departmental equipment
- Digital libraries and open access facilities
 - Digital libraries (From the University's network, or using your email credentials from home)
- Network access (Wifi or cable)
 - You have a student email to be used also for authentication purposes
 - Eduroam when outside
 - **Please don't use the network for illegal purposes!!!**

Travels and internships



Internships

- During your PhD, you can do an internship in companies, organizations, or other Universities (in Italy or abroad)
- Some internships are compulsory (e.g., for the “Regione Campania” PhD scholarships)
- For abroad internships, your scholarship will be increased by 50% for up to six months

Internship - Protocol

- To apply, you must submit **in advance** the forms provided by office
- Typically, attach an invitation letter
- The request must be approved by the doctoral board

Travels

- Please **ALWAYS** fill out a travel request form
- This is not just for reimbursement, but also to be covered by the insurance during your travel
- Always agree on your travel plans in advance with your advisor
- Be careful with visa requirements and constraints related to your Italian study visa
- **Be careful with the healthcare coverage in the country you visit**
- Don't throw away receipts if they are hard-copy only

Where to fill the travel form

- <https://unisannio.u-web.cineca.it/>
- Please indicate as responsible of the funding your advisor
- Your request will be directed to your advisor, who will approve the expenses

Reporting



Reporting and graduating

- Periodic (every 6 months) reporting for PNRR students
- First year reporting
- Second year reporting (including PhD proposal)
- PhD thesis and graduation

First year reporting

Very short report about

- Research activity of the year
- Courses taken
- Articles submitted and accepted/published
- Participation to conferences/workshops (indicating where you were a speaker)
- Participation to schools

Second year reporting

- Report similar to the first year except for:
 - A proposal, e.g., goal and organization, of the thesis
- Presentation (about 20 min.) with a committee of 3 professors

PhD thesis

- Complete the thesis
- Your advisor identifies two external reviewers (who are not in conflict of interest with you and do not belong to this University).
- The reviewers (informally) agree with your advisor to review the thesis
- The office informs the reviewers, and you send the thesis to them
- Reviews are returned to me and to the office (~one month)
- Once reviews are in, I plan the internal exam
- Internal exam: short (20 min.) presentation with a committee of 3 internal professors
 - This determines admission to the PhD defense

PhD defense

- After the internal exam, the first PhD board available (“collegio dei docenti”) formally identifies the defense committee
 - Proposed by the advisor
 - 3 members (one can be internal), different from the reviewers, no conflicts of interest
- The committee is formally appointed by the Rector

Finally, you can defend the thesis!



RULES & REGULATIONS



References

- University regulations “regolamento di ateneo in materia di dottorato di ricerca”
https://www.unisannio.it/sites/default/files/sito/ateneo/amministrazione/avvisi/uo-post-laurea/it/REGOLAMENTO_DI_ATENEO_IN_MATERIA_DI_DOTTORATO_DI_RICERCA_DR_335_2022.pdf
- XLI cycle Engineering program internal regulations
<https://www.unisannio.it/sites/default/files/ateneo/documenti/TII PhD course study program 41.pdf>

General rules

- Teaching: not permitted
- Consultancy to exam preparation schools: not permitted
- Teaching assistant/seminars/labs: up to 40 hours per year
- Technology transfer “terza missione” activities: up to 20 hours per year
- Paid activities, e.g., consultancy: subject to approval
- Other scholarships, while earning the PhD scholarship: subject to approval

Note: this is a full time job!

General Advices



General advices

This is more the role of your advisors, and I trust them

Ethics and Integrity

- This is absolutely the most important requirement
- **Failing to meet it means being out of the PhD program**
- I'm obvious, but I need to provide examples of what is strictly forbidden



Strictly forbidden

- Any form of plagiarism
- Fabricated data/results
- Reporting false statements
- Submitting concurrently the same work to different publication venues
- Failing to provide credits (and where necessary authorship) to somebody who deserves it



Regulated case by case

- Use of generative AI
- Research with human participants



 Claude

 Gemini

 deepseek

Aim at top quality

- This is just a suggestion 😊
- Please carefully look at that are the most important venues (journals, conferences) in your research field
- **This is your unique opportunity to shine...**

