Master Degree ENERGY ENGINEERING

SCHOOL OF CIVIL & INDUSTRIAL ENGINEERING (ICI)



WELCOME

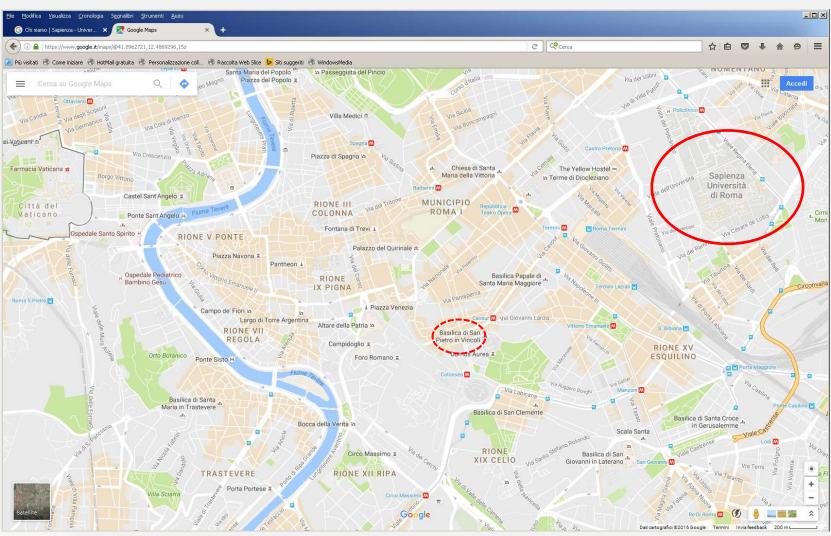
to

Sapienza University of Rome



founded in 1303

WHERE: Campus





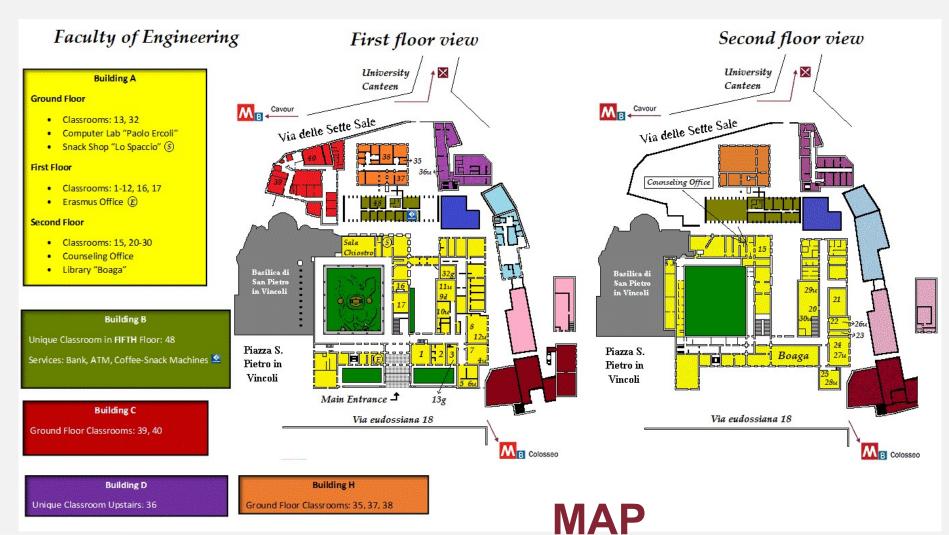
WHERE: Engineering



- Basilica, 1503 (Cloister by Giuliano da Sangallo)
- School of Engineering, 1873



WHERE: Engineering





EUROPE ENERGY









Europe ENERGY 2020 - enhanced investment & job possibilities (mill. toe) other renewables wind energy hydro energy nuclear coal

gas

oil



Involved Companies

1000

1500

fonte: ExxonMobile Energy Outlook 2014 (i dati si riferiscono al fabbisogno energetico primario)

201

Acea Energia, Eni Gas e Luce, Enel, Terna, ENEA, ABB, Erg, Vestas, GE, Elica, Bluenergy Group, Edison Energia, Esso, Gascom, Sorgenia, GSE, Gruppo API, Falck Renewables, Ariston, Energia Italia

2000

2500





ENERGY - RESEARCH & DEVELOPMENT IN SAPIENZA

- Fuel cells & micro fluidics
- Wind energy, macro & micro
- Biomass
- Marine systems for energy conversion
- Turbo machinery and micro-machinery
- Electrical energy storage
- Fusion reactor advances
- Energy systems modeling & simulation
- Measurement & control of energy systems
- Energy management
- Sustainability & energy saving
- Geothermal energy
- Smart building, air heating & conditioning
- Heat & mass transfer in energy systems
- Radioprotection & nuclear medicine
- Smart buildings & smart cities, domotics





- School of Engineering website http://www.ing.uniroma1.it/it
- Energy Engineering website https://corsidilaurea.uniroma1.it/en/corso/2018/29919
- Coordinator of Energy Degrees: Giampaolo Romano giampaolo.romano@uniroma1.it
- Information & Help Tutors
 Emanuele Michelangeli (emanuele.michelangeli@uniroma1.it)
 Fabio Nardecchia (fabio.nardecchia@uniroma1.it)
- Job after 1 year: 83%Job after 3 years: 94%





Degrees in Energy Engineering

Bachelor - 3 years

Energy Engineering (in Italian)

Master - 2 years

Energy Engineering

- Management & Plants career (mostly in Italian)
- Renewable Energies career (mostly in Italian)
- Nuclear Energy career (mostly in Italian)
- Energy Engineering career (in English)





THE CREDIT SYSTEM

1 credit (CFU or ECTS) ≈ 10 classroom hours

Modules:

- 3 ECTS = 3 hours/week
- 6 ECTS = 5 hours/week
- 9 ECTS = 8 hours/week
- 12 ECTS = 10 hours/week





<u>Duration</u>: 2 years, ~ 60 credits/year = 120 credits

Number of modules: 5 compulsory (36 credits) + 6 elective (45 credits) + 2 fully elective (12 credits) = 13 modules (93 credits)

- + stage or AAF (6 credits)
- + final project (21 credits)

Total number of master students: 100





FIRST YEAR - FIRST SEMESTER

Modules	CFU
Modern Physics for Engineers	0
Electrical Machines	9
Power Systems in Smart Buildings	6
Electrical Power Systems	6
Advanced Heat and Mass Transfer	9
AAF - Magnetic Confinement of Toroidal Plasmas	0
	30





FIRST YEAR - SECOND SEMESTER

Modules

Experimental Fluid Mechanics or Plasma Physics and Nuclear Fusion or Sustainable Combustion Chemistry or	6
Geothermal Energy	
Radiation Protection	0
Thermo-Economics & Sustainability	6
Thermomechanical Measurements for Energy Systems or	
Modern Physics for Engineers	9
AAF - Introduction to Ocean Energy or	
AAF - Fusion Reactor Technology or	3
AAF - Wind technologies	
	24





SECOND YEAR - FIRST SEMESTER

Modules CFU

Smart Grids in Electric Power Systems or Nuclear Reactor Theory	9
Electrical Energy Conversion from Renewable Sources or Computational Thermo-Fluids Analysis in Fluid Machinery	6
Advanced Energy Systems	9
Energy Management or	
Smart Cities	6
AAF - Storage Systems for Electrical Energy or	
AAF - Renewable Energy System Design or	
AAF - Design of Building Electric Power Systems	3
	33





SECOND YEAR - SECOND SEMESTER

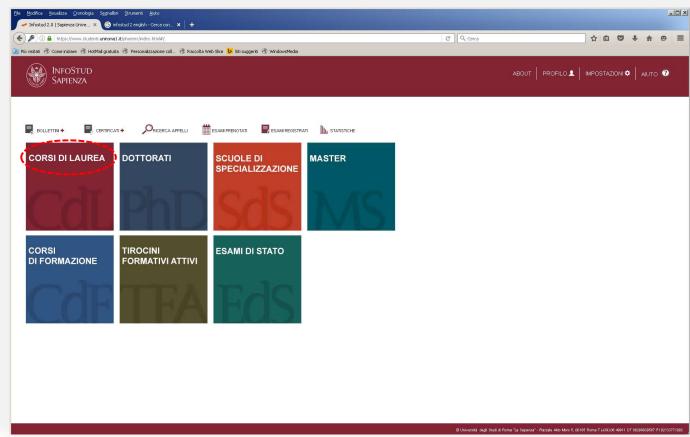
Modules	CFU
2 Fully Elective courses (also first year)	12
Stage or	
AAF - Neutronic Design of Nuclear Systems or	
AAF - Introduction to Modelling and Simulation	0
Final Project	21
	33

The selections of options and Elective courses is made in the **LEARNING PLAN**



HOW TO MANAGE YOUR STUDIES

STUDENT INTERACTIVE PLATFORM INFOSTUD 2





ADMISSION







- Orientamento in rete
- Gestione preferenze
- Magistrali sanitarie
- ▶ Bonus fratelli sorelle

CORSI SINGOLI

- Visualizza corsi
- Inserisci richiesta

TASSE

- Primo anno
- Anni successivi
- ► Esame finale
- Tirocini

ESAMI

- Prenota esami
- Esami prenotati
- Esami registrati
- Statistiche

BOLLETTINI

- Bollettini Generati
- Bollettini Pagati

CERTIFICATI

PERCORSO FORMATIVO

OPINIONI STUDENTI

PART-TIME

- Visualizza domanda
- Inserisci/modifica domanda
- State part-time

THINGS TO BE DONE

- Registration on the Platform
 (https://www.studenti.uniroma1.it/phoenixreg/#/)
- Use ID number & Password
- Click on the link with the arrow
- Provide the requested Code of Degree (29399)
- Provide documentation
- Print & Pay (10 euro)
- Wait for email to proceed for Enrollment



ENROLLMENT





CORSI DI LAUREA

ACCESSO AI CORSI

PROCEDURE SPECIALI

- Orientamento in rete
- Gestione preferenze
- Magistrali sanitarie
- Bonus fratelli sorelle

CORSI SINGOLI

- Visualizza corsi
- Inserisci richiesta

TASSE

Primo anno

- ----
- Esame finale
- Tirocini

ESAMI

- Prenota esami
- Esami prenotati
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CERTIFICATI

PERCORSO FORMATIVO

OPINIONI STUDENTI

PART-TIME

- Visualizza domanda
- Inserisci/modifica domanda
- Stato part-time

THINGS TO BE DONE

- Compute costs for non-resident students developing countries* – 500 euro + 140 euro other countries – 1000 euro + 140 euro
- 3 payments

first deadline – November 3, 2017 (290 -440 euro) second deadline – December 20, 2017 (175 -350 euro) third deadline – March 30, 2018 (175 -350 euro)

- Click on the link with the arrow
- Print & Pay
- * Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambogia, Central African Republic, Chad, Comoros, Congo Democratic Republic, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea Bissau, Haiti, Kenya, Kiribati, Korea Dem. Rep., Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sao Tome & Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Tajikistan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, Zambia, Zimbabwe



LEARNING PLAN





Torna alla home

CORSI DI LAUREA

ACCESSO AI CORSI

PROCEDURE SPECIALI

- · Orientamento in rete
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- ▶ Tirocini

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- Statistiche

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CERTIFICATE ---

PERCORSO FORMATIVO

PART-TIME

- Visualizza domanda
- Inserisci/modifica domanda
- State part-time

Master degree = 120 ECTS in 2 years

Modules:

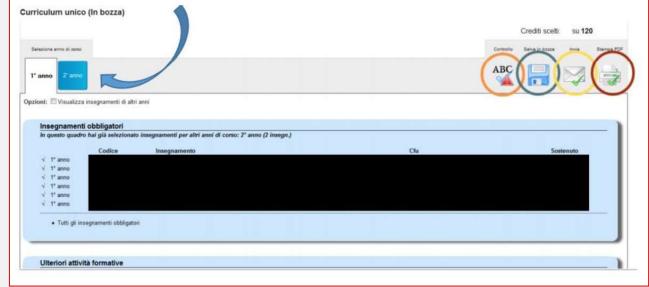
- compulsory
- partially elective
- fully elective (12 ECTS)
- stage or laboratories (AAF)
- final project

The learning plan must be completed after enrollment and before exams (usually around September - January of each year) on INFOSTUD 2



LEARNING PLAN







EXAMS





Torna alla home

CORSI DI LAUREA

ACCESSO AI CORSI

PROCEDURE SPECIALI

- · Orientamento in rete
- Gestione preferenze
- Magistrali sanitarie
- ▶ Bonus fratelli sorelle

CORSI SINGOLI

- Visualizza corsi
- Inserisci richiesta

TASSE

- Primo anno
- Anni successivi
- Esame finale
- Tirocini

ESAMI

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CERTIFICATI

PERCORSO FORMATIVO

OPINIONI STUDENTI

PART-TIME

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- State part-time

Exams must be booked IN ADVANCE Look for available Exam Sessions on **INFOSTUD 2**



CLASSROOM SCHEDULE

http://www.ing.uniroma1.it/it/orari-delle-lezioni

FIRST SEMESTER
September 24, 2018
December 21 2018
EXAMS

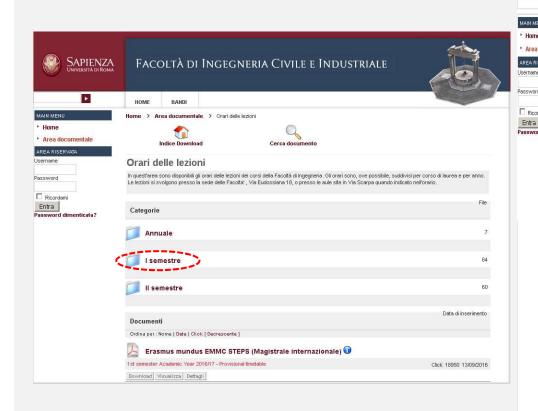
January - February 2019

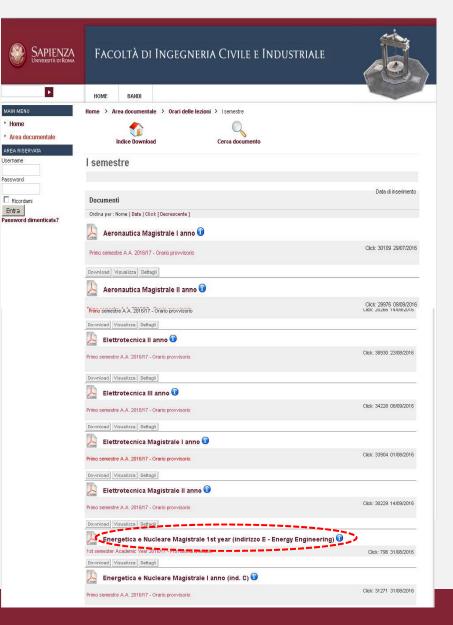
SECOND SEMESTER
February 25, 2019
May 31, 2019
EXAMS
June - July 2019
+
September 2019





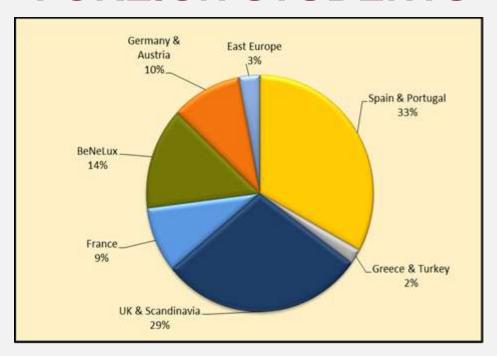
CLASSROOM SCHEDULE







ERASMUS IS ALSO FOR FOREIGN STUDENTS



- Erasmus fellowships: Faculty ~ 300 /year, Energy Engineering ~ 30/year http://www.ing.uniroma1.it/it/internazionale/exchange-students/outgoing
- English for Italian & Foreign students

http://www.ing.uniroma1.it/it/didattica/offerta-formativa/corsi-di-laurea-e-laurea-magistrale/corsi-di-lingua-straniera



WELCOME



