

## University of Pavia

## Study Course: ELECTRONIC ENGINEERING - 06416

Classe LM-29 Ingegneria elettronica

Regulations 2013/2014 - Course Regulations a.y. 2021/2022

## Study Plan academic year 2022/2023

To be submitted online from November 2nd to November 30th 2022 (enrolled student only)

STUDENT NUMBER N. .... SURNAME- NAME .....

## TRACK 01 - MICROELECTRONICS

## 1° Year - academic year 2021/2022

Learning Activity	CFU	N°	N° (ind.)	Compulsory	Scientific Area	Type of learning activity	Period
504434 - ADVANCED MATHEMATICAL METHODS FOR ENGINEERS	9	1		X	MAT/05	Related/Supplementary	First Semester
504439 - RF MICROELECTRONICS	9	2		X	ING-INF/01	Distinctive	Second Semester
505002 - ELECTRONIC INSTRUMENTATION AND TECHNOLOGIES	9	3		X	ING-INF/01	Distinctive	First Semester
507294 - INTRODUCTION TO QUANTUM MECHANICS	3	4		X	FIS/03	Related/Supplementary	First Semester
504437 - MICROWAVES	9	5		X	ING-INF/02	Distinctive	Second Semester
504990 - INTEGRATED CIRCUIT DEVICES	9	6		X	ING-INF/01	Distinctive	Second Semester
504440 - DIGITAL IC DESIGN	6	7		X	ING-INF/01	Distinctive	Second Semester
504435 - ANALOG INTEGRATED CIRCUITS	9	8		X	ING-INF/01	Distinctive	First Semester
TOT. 63 CFU							

## 2° Year - academic year 2022/2023

Learning Activity	CFU	N°	N° (ind.)	Compulsory	Scientific Area	Type of learning activity	Period
509352 - INTEGRATED POWER MANAGEMENT	6	9			ING-INF/01	Distinctive	First Semester
504444 - ANTENNAS	6	9			ING-INF/02	Distinctive	First Semester
505021 - ELECTRO-OPTICAL INSTRUMENTATION	6	9			ING-INF/01	Distinctive	First Semester
509685 - ANALOG-DIGITAL INTERFACE CIRCUITS	6	10		X	ING-INF/01	Related/Supplementary	First Semester
502993 - MICROSENSORI, MICROSISTEMI INTEGRATI E MEMS	6	11			ING-INF/01	Related/Supplementary	First Semester
509686 - STATISTICAL SIGNAL PROCESSING	6	11			ING-INF/03	Related/Supplementary	First Semester
FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	12	12*				Optional	
509352 - INTEGRATED POWER MANAGEMENT	6	12*			ING-INF/01	Optional	First Semester
504998 - DIGITAL COMMUNICATIONS	6	12*			ING-INF/03	Optional	Second Semester
505018 - SATELLITE DATA ANALYSIS	6	12*			ING-INF/03	Optional	First Semester
505021 - ELECTRO-OPTICAL INSTRUMENTATION	6	12*			ING-INF/01	Optional	First Semester

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504717 - INDUSTRIAL CONTROL	6	12*			ING-INF/04	Optional	Second Semester
507288 - INTERNET AND MULTIMEDIA	6	12*			ING-INF/03	Optional	First Semester
502993 - MICROSENSORI, MICROSISTEMI INTEGRATI E MEMS	6	12*			ING-INF/01	Optional	First Semester
505006 - MICROWAVE MEASUREMENTS	6	12*			ING-INF/02	Optional	First Semester
504464 - ORGANIZATION THEORY AND DESIGN	6	12*			SECS-P/06	Optional	Second Semester
504462 - PROCESS CONTROL	6	12*			ING-INF/04	Optional	First Semester
505000 - RADAR REMOTE SENSING	6	12*			ING-INF/02	Optional	Second Semester
504463 - ROBOT CONTROL	6	12*			ING-INF/04	Optional	Second Semester
505017 - SATELLITE AND SPACE SYSTEMS	6	12*			ING-INF/02	Optional	First Semester
505012 - LASER SAFETY	6	12*			FIS/03	Optional	First Semester
503188 - STRUMENTAZIONE BIOMEDICA LM	6	12*			ING-INF/06	Optional	First Semester
508744 - BIOELETTROMAGNETISMO APPLICATO	6	12 *			ING-INF/02	Optional	Secondo Semestre
509037 - HARDWARE SOFTWARE CODESIGN	6	12 *			ING-INF/05	Optional	Second Semester
510443 - MACHINE LEARNING FOR EARTH OBSERVATION DATA PROCESSING AND FUSION**	3	12*			ING-INF/03	Optional	Second Semester
505013 - ADVANCED TOPICS IN MICROWAVE TECHNOLOGIES	3	13*			ING-INF/02	Other	All Year
501246 - ETICA AMBIENTALE	3	13*			SECS-P/13	Other	Second Semester
509379 - INDUSTRIAL TOPICS IN MICROELECTRONICS AND PHOTONICS	3	13*			ING-INF/01	Other	All Year
507220 - PLANNING, MANAGEMENT AND SUPPLY OF GOODS AND SERVICES	3	13*			ING-IND/35	Other	Second Semester
503327 - MASTER THESIS	24			X	PROFIN_S	Final Exam	
<b>TOT. 57 CFU</b>							

\*Choose a total of 12 CFU for choice n°12; choose 3 CFU for choice n°13.

**TRACK 02 - PHOTONICS**

**1° Year - academic year 2021/2022**

Learning Activity	CFU	N°	N° (ind.)	Compulsory	Scientific Area	Type of learning activity	Period
504434 - ADVANCED MATHEMATICAL METHODS FOR ENGINEERS	9	1		X	MAT/05	Related/Supplementary	First Semester
504992 - OPTOELECTRONIC DEVICES	9	2		X	ING-INF/01	Distinctive	First Semester
508745 - INTRODUCTION TO QUANTUM MECHANICS AND QUANTUM TECHNOLOGIES	6	3		X	FIS/03	Related/Supplementary	First Semester
504993 - QUANTUM ELECTRONICS	6	4		X	FIS/03	Related/Supplementary	First Semester
504437 - MICROWAVES	9	5		X	ING-INF/02	Distinctive	Second Semester
504994 - OPTICAL COMMUNICATIONS	9	6		X	ING-INF/01	Distinctive	Second Semester
504996 - NONLINEAR OPTICS	6	7		X	FIS/03	Related/Supplementary	Second Semester
504998 - DIGITAL COMMUNICATIONS	6	8		X	ING-INF/03	Related/Supplementary	Second Semester
<b>TOT. 60 CFU</b>							

## 2° Year - academic year 2022/2023

Learning Activity	CFU	N°	N° (ind.)	Compulsory	Scientific Area	Type of learning activity	Period
505021 - ELECTRO-OPTICAL INSTRUMENTATION	6	9		X	ING-INF/01	Distinctive	First Semester
505015 - INDUSTRIAL LASER DESIGN	6	10		X	ING-INF/01	Distinctive	First Semester
504999 - ANTENNAS AND PROPAGATION	9	11		X	ING-INF/02	Distinctive	First Semester
FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	12	12*				Optional	
504717 - INDUSTRIAL CONTROL	6	12*			ING-INF/04	Optional	Second Semester
507288 - INTERNET AND MULTIMEDIA	6	12*			ING-INF/03	Optional	First Semester
502993 - MICROSENSORI, MICROSISTEMI INTEGRATI E MEMS	6	12*			ING-INF/01	Optional	First Semester
505006 - MICROWAVE MEASUREMENTS	6	12*			ING-INF/02	Optional	First Semester
502987 - OPTOELETTRONICA BIOMEDICA	6	12*			ING-INF/01	Optional	Second Semester
504464 - ORGANIZATION THEORY AND DESIGN	6	12*			SECS-P/06	Optional	Second Semester
504462 - PROCESS CONTROL	6	12*			ING-INF/04	Optional	First Semester
505018 - SATELLITE DATA ANALYSIS	6	12*			ING-INF/03	Optional	First Semester
505000 - RADAR REMOTE SENSING	6	12*			ING-INF/02	Optional	Second Semester
504463 - ROBOT CONTROL	6	12*			ING-INF/04	Optional	Second Semester
505017 - SATELLITE AND SPACE SYSTEMS	6	12*			ING-INF/02	Optional	First Semester
505012 - LASER SAFETY	6	12*			FIS/03	Optional	First Semester
503188 - STRUMENTAZIONE BIOMEDICA LM	6	12*			ING-INF/06	Optional	First Semester
509685 - ANALOG-DIGITAL INTERFACE CIRCUITS	6	12*			ING-INF/01	Optional	First Semester
508744 - BIOELETTRROMAGNETISMO APPLICATO	6	12*			ING-INF/02	Optional	Second Semester
510154 - RETRIEVAL OF BIOPHYSICAL PARAMETERS FROM OPTICAL AND RADAR DATA**	3	12*			ING-INF/03	Optional	Second Semester
510155 - HYPERSPECTRAL DATA PROCESSING**	3	12*			ING-INF/03	Optional	Second Semester
510156 - SAR DIFFERENTIAL INTERFEROMETRY AND TOMOGRAPHY**	3	12*			ING-INF/03	Optional	Second Semester
510443 - MACHINE LEARNING FOR EARTH OBSERVATION DATA PROCESSING AND FUSION**	3	12*			ING-INF/03	Optional	Second Semester
510157 - MATHEMATICAL TOPICS IN FLUID MECHANICS AND APPLICATIONS	3	12*			MAT/05	Optional	Secondo Semestre
505013 - ADVANCED TOPICS IN MICROWAVE TECHNOLOGIES	3	13*			ING-INF/02	Other	All Year
509379 - INDUSTRIAL TOPICS IN MICROELECTRONICS AND PHOTONICS	3	13*			ING-INF/01	Other	All Year
501246 - ETICA AMBIENTALE	3	13*			SECS-P/13	Other	Second Semester
507220 - PLANNING, MANAGEMENT AND SUPPLY OF GOODS AND SERVICES	3	13*			ING-IND/35	Other	Second Semester
503327 - MASTER THESIS	24			X	PROFIN_S	Final Exam	
<b>TOT. 60 CFU</b>							

\*Choose a total of 12 CFU for choice n°12; choose 3 CFU for choice n°13. \*\*Learning activities not included in the lecture schedule

## TRACK 03 - SPACE COMMUNICATION AND SENSING

## 1° Year - academic year 2021/2022

Learning Activity	CFU	N°	N° (ind.)	Compulsory	Scientific Area	Type of learning activity	Period
504434 - ADVANCED MATHEMATICAL METHODS FOR ENGINEERS	9	1		X	MAT/05	Related/Supplementary	First Semester
505018 - SATELLITE DATA ANALYSIS	9	2		X	ING-INF/03	Related/Supplementary	First Semester
504993 - QUANTUM ELECTRONICS	6	3			FIS/03	Related/Supplementary	First Semester
508745 - INTRODUCTION TO QUANTUM MECHANICS AND QUANTUM TECHNOLOGIES	6	3			FIS/03	Related/Supplementary	First Semester
504999 - ANTENNAS AND PROPAGATION	9	4		X	ING-INF/02	Distinctive	First Semester
504437 - MICROWAVES	9	5		X	ING-INF/02	Distinctive	Second Semester
504994 - OPTICAL COMMUNICATIONS	9	6			ING-INF/01	Distinctive	Second Semester
504439 - RF MICROELECTRONICS	9	6			ING-INF/01	Distinctive	Second Semester
505000 - RADAR REMOTE SENSING	6	7		X	ING-INF/02	Distinctive	Second Semester
504998 - DIGITAL COMMUNICATIONS	6	8		X	ING-INF/03	Related/Supplementary	Second Semester
<b>TOT. 63 CFU</b>							

## 2° Year - academic year 2022/2023

Learning Activity	CFU	N°	N° (ind.)	Compulsory	Scientific Area	Type of learning activity	Period
505021 - ELECTRO-OPTICAL INSTRUMENTATION	6	9			ING-INF/01	Distinctive	First Semester
505017 - SATELLITE AND SPACE SYSTEMS	6	9			ING-INF/02	Distinctive	First Semester
505006 - MICROWAVE MEASUREMENTS	6	10		X	ING-INF/02	Distinctive	First Semester
509686 - STATISTICAL SIGNAL PROCESSING	6	11		X	ING-INF/03	Related/Supplementary	First Semester
FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	12	12*				Optional	
505021 - ELECTRO-OPTICAL INSTRUMENTATION	6	12*			ING-INF/01	Optional	First Semester
504717 - INDUSTRIAL CONTROL	6	12*			ING-INF/04	Optional	Second Semester
507288 - INTERNET AND MULTIMEDIA	6	12*			ING-INF/03	Optional	First Semester
502993 - MICROSENSORI, MICROSISTEMI INTEGRATI E MEMS	6	12*			ING-INF/01	Optional	First Semester
504464 - ORGANIZATION THEORY AND DESIGN	6	12*			SECS-P/06	Optional	Second Semester
504462 - PROCESS CONTROL	6	12*			ING-INF/04	Optional	First Semester
505000 - RADAR REMOTE SENSING	6	12*			ING-INF/02	Optional	Second Semester
504463 - ROBOT CONTROL	6	12*			ING-INF/04	Optional	Second Semester
505017 - SATELLITE AND SPACE SYSTEMS	6	12*			ING-INF/02	Optional	First Semester
508745 - INTRODUCTION TO QUANTUM MECHANICS AND QUANTUM TECHNOLOGIES	6	12*			FIS/03	Optional	First Semester
505012 - LASER SAFETY	6	12*			FIS/03	Optional	First Semester
503188 - STRUMENTAZIONE BIOMEDICA LM	6	12*			ING-INF/06	Optional	First Semester
510159 - MACHINE LEARNING FOR EARTH OBSERVATION	3	12*			ING-INF/03	Optional	Second Semester

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510160 - EARTH ENGINE FOR EO DATA PROCESSING	3	12*			ING-INF/03	Optional	Second Semester
510161 - REMOTE SENSING FOR WATER APPLICATIONS**	3	12*			ING-INF/03	Optional	Second Semester
510162 - REMOTE SENSING FOR WILDFIRE APPLICATIONS**	3	12*			ING-INF/03	Optional	Second Semester
510154 - RETRIEVAL OF BIOPHYSICAL PARAMETERS FROM OPTICAL AND RADAR DATA**	3	12*			ING-INF/03	Optional	Second Semester
510155 - HYPERSPECTRAL DATA PROCESSING**	3	12*			ING-INF/03	Optional	Second Semester
510156 - SAR DIFFERENTIAL INTERFEROMETRY AND TOMOGRAPHY**	3	12*			ING-INF/03	Optional	Second Semester
510163 - PROCESSING OF MULTI-FREQUENCY SAR IMAGES**	3	12*			ING-INF/03	Optional	Second Semester
510443 - MACHINE LEARNING FOR EARTH OBSERVATION DATA PROCESSING AND FUSION**	3	12*			ING-INF/03	Optional	Second Semester
508744 - BIOELETTROMAGNETISMO APPLICATO	3	12*			ING-INF/02	Optional	Second Semester
505013 - ADVANCED TOPICS IN MICROWAVE TECHNOLOGIES	3	13*			ING-INF/02	Other	All Year
509379 - INDUSTRIAL TOPICS IN MICROELECTRONICS AND PHOTONICS	3	13*			ING-INF/01	Other	All Year
501246 - ETICA AMBIENTALE	3	13*			SECS-P/13	Other	Second Semester
507220 - PLANNING, MANAGEMENT AND SUPPLY OF GOODS AND SERVICES	3	13*			ING-IND/35	Other	Second Semester
503327 - MASTER THESIS	24			X	PROFIN_S	Final Exam	
<b>TOT. 57 CFU</b>							

\*Choose a total of 12 CFU for choice n°12; choose 3 CFU for choice n°13. \*\*Learning activities not included in the lecture schedule

[The semester assigned to each learning activity may change. Refer to the time schedule published in the faculty website for confirmation.](#)  
[For more information please refer to the course catalogue.](#)

Date .....

Signature .....

**The study plan is not to be modified. Students can apply for an exception but they have to submit a valid motive. When a student submit a change which is not proposed in a standard study plan, the study plan became an individual study plan. In order to do so, draw a line on the subject you wish to change, add the new subject in the orange boxes at the end of the study plan. Insert the progressive number assigned to the subject you wish to change. Please note that a revenue stamp of 16€ is due to apply for an individual study plan. This new plan will have to be approved by the committee designated by the competent Teaching Council.**