

ICT for INTERNET and MULTIMEDIA (MIME) engineering



8 CENTURIES OF ACADEMIC EXCELLENCE



Italian World-Class University

 Multidisciplinary and Interdisciplinary

Research-Intensive

8 CENTURIES OF ACADEMIC EXCELLENCE



Università degli Studi di Padova



 Among the top Universities in Italy for Teaching and Research Quality

Top 250 University in the world



THE UNIVER-CITY

- City-campus
- Student-centred town
- Unique setting: UNESCO World Heritage Site
- Strategic position

ENTRY REQUIREMENTS



Università degli Studi di Padova

LANGUAGE CERTIFICATE	MINIMUM SCORE
TOEFL (Including TOEFL IBT)	80
IELTS (Academic / General Training)	6.0
Cambridge ESOL (General and HE)	173
Trinity College London (ISE)	ISE II
Oxford University Press (OTE)	126
Gatehouse (ESOL International Classic)	GA Level 1
Pearson PTE	PTE General 3 (ESOL Level 1)
Pearson PTE Academic	65

Verify **country-based** specific entry title **requirements** at the following link: <u>https://www.unipd.it/e</u> <u>n/entry-title-</u> <u>requirements</u>



ICT for INTERNET and MULTIMEDIA (MIME) engineering





DEPT. OF INFORMATION ENGINEERING











The Department is one of the highest earners of income for the University and it was classified as «Department of Excellence» by the Italian Ministry for University.



LABORATORIES







Teaching Labs









- Intro / website
- Application & entry requirements
- MIME: a multicultural environment
- Programme structure
- International mobility
- Research training & internship programme
- Career opportunities
- Testimonials & success stories





https://mime.dei.unipd.it

MIME WEBSITE







ICT FOR INTERNET & MULTIMEDIA

MIME lies at the intersection of three technical domains

Life Science E-health Multimedia



Wireless Fiber optics Antennas Quantum comm.



PROGRAMME SPECIFIC ENTRY REQUIREMENTS (for international students)

COUNTRY-BASED SPECIFIC GPA REQUIREMENTS

Country	Minimum GPA score		
Iran	14.5		
Bangladesh	3/4		
Turkey	2.7		
India	60/100; 7/10; 5.6/8; 2.8/4		
Pakistan	3.10		
Syria	75		
Nigeria	3.5		
China	75/100; 3/5; 2.8/4		
Egypt	70/100; 2.8/4		
Kazakhstan	3/4; 80/100; B		
Azerbaijan	4/5; 80/100		
Sudan	70/100; 2.8/4		



A MULTICULTURAL PROGRAMME

MIME.

INCOMING INTERNATIONAL STUDENTS In 2022, ICT for Internet and multimedia received 611 applications

Iran	142	54	The Gambia	17	1	Uzbekistan	6	0
Pakistan	79	9	Somalia	13	0	Sudan	5	1
Afghanistan	72	1	Kazakhstan	11	5	Azerbaijan	5	2
Bangladesh	61	10	Nigeria	11	1	Sri Lanka	3	2
India	38	4	Ghana	9	1	Nepal	3	2
Turkey	25	14	Russia	8	5	Albania	2	1
Ethiopia	25	6	Syria	7	3	Brasil	1	1
China	23	6	Tunisia	7	5	Germany	1	1

and incoming Erasmus + students from Europe



HOW TO JOIN THE PROGRAM

ITALIAN STUDENTS

- Free admission, subject to requisites (see "avvisi di ammissione")
 - <u>https://www.unipd.it/corsi/iscriviti-magistrale</u>
- "Avvisi di ammissione" for UNIPD Master's degrees:
 - https://www.unipd.it/avvisi-ammissione-corsi

INTERNATIONAL STUDENTS

- Application website (check for info and deadlines):
 - https://apply.unipd.it/
- Eligibility subject to admission requirements (minimum GPA)
- Acceptance decided by a Selection Committee





PROGRAMME STRUCTURE

STRUCTURE

- 120 ECTS credits (4 semesters, 30 ECTS each)
- 84 credits of coursework + 6 soft skills + 30 final thesis

THESIS

- Final project, usually carried out in the 4th semester
- Can be combined with a research training / internship

EXPECTED OUTCOMES

 Occupation rate of 100% after 1 month from graduation (even without knowing Italian language)





ICT FOR INTERNET & MULTIMEDIA

5 curricula

C1 Communication technologiesC2 CybersystemsC3 MultimediaC4 ICT for Life & Health

C5 Research and Innovation





STUDY PLAN STRUCTURE FOR C1-C4

Study plan structure for C1-C4

- All courses are worth 6 ECTS
- 6 Mandatory courses
- 3 Core courses from a list (choice amongst 10-12)
- 3 Related courses from a list (choice amongst 9-12)
- 2 Free courses
- 1 Research Training or Internship (9 ECTS) 1 Final Thesis (21 ECTS)



C1 - COMMUNICATION TECHNOLOGIES

Devoted to Communication and Transmission Systems

6 Mandatory courses (6 ECTS)

- Antennas
- Deep Learning
- Digital Communications
- Multimedia Communication
- Wireless Networks
- 5G Systems

- Advanced topics in ommunications
- Fiber optics
- Game theory
- Information security
- Nanophotonics
- IoT and Smart Cities
- Optical & quantum communication
- Programming for TLC systems
- Satellite communications
- SDR/ORAN laboratory



C2 - CYBERSYSTEMS

Devoted to Communication Networks

6 Mandatory courses (6 ECTS)

- Fiber Optics
- Digital Communications
- lot & Smart Cities
- Multimedia Communication
- Wireless Networks
- Stochastic Processes

- Antennas
- Computer vision
- Deep learning
- Digital and Interactive Multimedia
- Game theory
- Information security
- IoT for Industrial Applications
- Network science
- Performance analysis of comnets
- SDR/ORAN laboratory
- 5G systems



C3 - MULTIMEDIA

Devoted to Multimedia Systems

6 Mandatory courses (6 ECTS)

- Communication networks
- Computer vision
- Deep Learning
- Digital communications
- 3D & extended reality
- Optimization for ICT

- Adversarial machine learning
- Multimedia communications
- Biometrics
- Digital and interactive multimedia
- Game theory
- Human Data Analytics
- Performance analysis of comnets
- Information security
- Network science
- Wireless Networks



C4 – ICT for Life & Health

Devoted to ICT for e-health (signal processing & transmission)

6 Mandatory courses (6 ECTS)

- Bio electromagnetism
- e-health
- Communication networks
- Computer vision
- Deep learning
- Optimization for ICT

- Multimedia communication
- Biometrics
- Bio photonics
- Digital and interactive multimedia
- Game theory
- Human Data Analytics
- Network analysis
- Network science
- IoT & Smart Cities
- 3D & extended reality



C5 – Innovation and Research

Innovation & research for industrial and academic paths

3 Mandatory – choose 3 out of 4

- Digital communications
- Fiber optics
- Network modeling
- Computer vision

3 Mandatory – choose 3 out of 4

- Game theory
- Deep learning
- Stochastic processes
- Electromagnetic theory and methods

Project-based courses – choose 2 out of 4

- Advanced photonics
- Advanced wireless systems
- Advanced network analysis
- Advanced multimedia systems

core course from the entire offer courses amongst related subjects free courses

1 research training or internship (9 ECTS) 1 final thesis project (21 ECTS)



RELATED SUBJECTS

Choose 3	
Big data computing	Neuroimaging
Biomedical Wearable Technologies for Healthcare and Wellbeing	Neurorobotics and neurorehabilitation
Comp. Eng. for Music and Multimedia	Optimization methods for ICT
Computational genomics	Optoelectronics for green technologies
Convex optimization	Photovoltaic science and technology
Cryptography	Physical Models of Living Systems
Digital storytelling	Precision Medicine
Embedded real time control	Programmable hardware devices
Foundations of databases	Quantum information and computing
Human Computer Interaction	Quantum methods for ICT
ICT for automotive and domotics	Quantum optics and laser
ICT robotics	Quantum Technologies
Industrial communications	Reinforcement Learning
Molecular photonics	Sensing and measurement Systems
Nanostructured materials	Sports engineering and rehabilitation devices
Natural language processing	Web applications



- For the latest updates on the curricula
 - Courses, years/semesters, study programs, professors, etc.

Check:

- The MIME Website: https://mime.dei.unipd.it/
- The UNIPD educational offer: <u>https://didattica.unipd.it/</u>
 (select academic year → second cycle degree courses → school of engineering → ICT for Internet and Multimedia)



PROGRAMME STRUCTURE

ERASMUS+

Recommended during the 3rd semester

Change study plan with exams abroad

suggested destinations (under responsibility of an ICT lecturer)

proposed new flows





A min 42 of credits is required to start the internship / research training activity (worth 9 credits)



UNIVERSITÀ

DEGLI STUDI

DI PADOVA



SOME NUMBERS

According to AlmaLaurea – <u>https://www2.almalaurea.it/</u>

Student occupation status

- One year after graduating
- 85,2% working
- 8,2% not working and not looking for a job
- 69,3% of them in the scientific field,
- most of them for private companies

Degree effectiveness & satisfaction with current job

- 69,2% very effective
- 28,8% fairly effective
- 1,9% not very effective





TESTIMONIALS/ALUMNI

- Marco Centenaro
 - Officer @ National Cybersecurity Agency, Italy
- Daniele Munaretto
 - Director of Research and Innovation @ Hewlett Packard (HP), Italy
- Marco Mezzavilla
 - Research faculty @New York University, Brooklyn, NY, US
- Nicolò Michelusi
 - Professor @ Arizona State University, US
- Marco Levorato
 - Professor @ University of California, Irvine
- Michele Polese
 - Research assistant Professor @ Northeastern University, Boston, US
- Giorgio Quer
 - Director of Artificial Intelligence @ Scripps, San Diego, CA, US





WATCH OUR VIDEO "10 reasons for studying in Padua" www.youtube.com/watch?v=Zl6vKRe6PWc