

Annexes to ETSETB Academic Regulations for MET and MEE Master Degrees

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Annex 1: Admission profiles

Typical admission profiles for MET:

- Bachelor's degree in Telecommunication Technologies and Services Engineering.
- Bachelor's degree in Science and Telecommunications Technologies.
- Bachelor's degree in Audiovisual Systems Engineering.
- Bachelor's degree in Electronic Systems Engineering.
- Bachelor's degree in Telecommunications Systems Engineering.
- Bachelor's degree in Telematics Engineering.
- Five-year degree in Telecommunications Engineering (Enginyer Superior de Telecomunicació): 60 ECTS credits can be recognised.
- Five-year degree in Electronic Engineering (Enginyer Superior Electrònic): 45 ECTS credits can be recognised.
- Diploma in Telecommunications Engineering (Enginyer Tècnic de Telecomunicació).
- Diploma in Electronic Engineering (Enginyer Tècnic Electrònic).

Admission profiles for MET in accordance with the Master's Academic Committee criterion:

- Bachelor's degree in Engineering Physics: additional bridging courses with a maximum load of 60 ECTS credits must be passed, depending on the specialization of the applicant.

Typical admission profiles for MEE:

- Bachelor's degree in Engineering of Electronic Systems.
- Bachelor's degree in Engineering Physics.
- Bachelor's degree in Automatics and Industrial Electronics Engineering.
- Bachelor's degree in Science and Telecommunications Technologies.
- Bachelor's degree in Engineering of Telecommunications Systems.
- Bachelor's degree in Engineering of Audio-visual Systems.
- Bachelor's degree in Telematics Engineering.
- Five-year degree in Electronic Engineering (Enginyer Superior Electrònic): 60 ECTS credits can be recognised.
- Five-year degree in Telecommunications Engineering (Enginyer Superior de Telecomunicació): 35 ECTS credits can be recognised.

Admission profiles for MEE in accordance with the Master's Academic Committee criterion:

- Bachelor's degree or five-year degree in Physics: students must pass additional bridging courses with a maximum load of 60 ECTS credits, depending on the specialization of the applicant.

Annex 2: English language requirements

Candidates are required to provide accreditation of English language proficiency at Common European Framework English level B2.2.

Conditions of certification established by the Master's Academic Committee:

- To have English as the native language.
- To have studied in an English-speaking country (1 semester at least).
- To have studied a University academic program imparted in English (1 semester at least).
- To hold a European Higher Education Area degree that includes English level B2.
- English language certificate:
 - Cambridge: FCE.
 - TOEFL PBT \geq 567; CBT \geq 227; IBT \geq 87.
 - IELTS: 5.5.
 - TOEIC: 750.
- Escuela Oficial de Idiomas: Certificado de nivel avanzado (Level 5).
- To obtain a B2 English certificate at the UPC:
 - Language services and resources at the UPC.
 - Merit School.

Annex 3: Bridge Subjects

MET bridge subjects

The MET bridge subjects are as follows:

- Antennae and microwaves (AAM)
- Data transmission protocols (DTP)
- Digital communications (DC)
- Programmable Electronics (PROEL)
- Signal processing (SIGPRO)
- Systems based on microprocessors (SBMIC) (shared with MEE)
- Telecommunication systems fundamentals (TSF)

Required bridge subjects for most common access profiles to MET:

Admission profile	Bridging subjects
<ul style="list-style-type: none"> • Bachelor's degree in telecommunication technologies and services engineering, speciality in telecommunication systems • Grau en enginyeria de tecnologies i serveis de telecomunicació, menció en sistemes de telecomunicació 	<ul style="list-style-type: none"> • No bridge subjects are required
<ul style="list-style-type: none"> • Bachelor's degree in telecommunication technologies and services engineering, speciality in: <ul style="list-style-type: none"> ○ Audiovisual systems ○ Electronics systems ○ Networking systems • Grau en enginyeria de tecnologies i serveis de telecomunicació, mencions: <ul style="list-style-type: none"> ○ Sistemes audiovisuals ○ Sistemes electrònics ○ Sistemes telemàtics 	<ul style="list-style-type: none"> • Antennae and microwaves (AAM) • Digital communications (DC) • Telecommunication systems fundamentals (TSF)

<ul style="list-style-type: none"> • Bachelor's degree in audiovisual systems engineering • Grau en enginyeria de sistemes audiovisuals 	<ul style="list-style-type: none"> • Antennae and microwaves (AAM) • Digital communications (DC) • Data transmission protocols (DTP) • Telecommunication systems fundamentals (TSF)
<ul style="list-style-type: none"> • Bachelor's degree in telecommunication systems engineering • Grau en enginyeria de sistemes de telecomunicació 	<ul style="list-style-type: none"> • Data transmission protocols (DTP)
<ul style="list-style-type: none"> • Bachelor's degree in electronic systems engineering • Grau en sistemes electrònics 	<ul style="list-style-type: none"> • Antennae and microwaves (AAM) • Digital communications (DC) • Data transmission protocols (DTP) • Signal processing (SIGPRO) • Telecommunication systems fundamentals (TSF)
<ul style="list-style-type: none"> • Bachelor's degree in telematics engineering • Grau en enginyeria telemàtica 	<ul style="list-style-type: none"> • Antennae and microwaves (AAM) • Digital communications (DC) • Telecommunication systems fundamentals (TSF) • Signal processing (SIGPRO) or Systems based on microprocessors (SBMIC), based on the intensification that the student wishes to enrol
<ul style="list-style-type: none"> • Electronic engineering 	<ul style="list-style-type: none"> • Antennae and microwaves (AAM) • Digital communications (DC) • Data transmission protocols (DTP) • Telecommunication systems fundamentals (TSF)

Mapping between bachelor subjects and MET bridge subjects

Students currently enrolled in a bachelor program, may enrol for elective subjects that will enable them to skip bridge subjects on accessing to MET. These subjects are as follows:

MET bridge subject	CITTEL subject	GRETST subject
Antennas and microwaves (AAM)	Antennas and microwaves (AIM)	Antenes (ANTENES - 230053) + Microones (MICROS - 230052)
Data transmission protocols (DTP)	Data transmission protocols (PTD)	-
Digital communications (DC)	Advanced digital communications (CDA)	Comunicacions digitals avançades (CDA - 230051)
Programmable electronics (PROEL)	-	Disseny de sistemes electrònics digitals (DSED)
Signal processing (SIGPRO)	-	-
Systems based on microprocessors (SBMIC)	Electronic systems based on microprocessors (SEBM)	-
Telecommunication system fundamentals (TSF)	Radiocomunicacions (RCOMCITTEL) + Wire transmission (TC)	Comunicacions òptiques (COMOPT - 230055) + Radiocomunicacions (RADIOCOMSISTEL - 230054)

MEE bridge subjects

MEE bridge subjects are:

- Control theory and applications (CTA).
- Electronics for communications systems (ECS) (shared with MET).
- Introduction to microelectronic technologies (IMT).
- Programmable electronics (PROEL).
- Sensors, instruments and measurement systems (SIM).
- Systems based on microprocessors (SBMIC) (shared with MET).

Required bridge subjects for the most common MEE access profiles:

Admission profile	Bridging subjects
<ul style="list-style-type: none"> • Bachelor's degree in telecommunication technologies and services engineering, speciality in electronic systems • Grau en enginyeria de tecnologies i serveis de telecomunicació, menció sistemes electrònics 	<ul style="list-style-type: none"> • No bridge subjects are required
<ul style="list-style-type: none"> • Bachelor's degree in telecommunication technologies and services engineering, specialities in: <ul style="list-style-type: none"> ○ Audiovisual systems ○ Networking systems ○ Telecommunication systems • Grau en enginyeria de tecnologies i serveis de telecomunicació, mencions: <ul style="list-style-type: none"> ○ Sistemes audiovisuals ○ Sistemes de telecomunicació ○ Sistemes telemàtics 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL) • Electronics for communications systems (ECS) • Sensors, instruments and measurement systems (SIM)
<ul style="list-style-type: none"> • Bachelor's degree in science and technologies of telecommunications 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL) • Sensors, instruments and measurement systems (SIM)

<ul style="list-style-type: none"> • Bachelor's degree in engineering of audiovisual systems 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Electronics for communications systems (ECS) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL) • Sensors, instruments and measurement systems (SIM)
<ul style="list-style-type: none"> • Bachelor's degree in telecommunications systems engineering 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Electronics for communications systems (ECS) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL) • Sensors, instruments and measurement systems (SIM)
<ul style="list-style-type: none"> • Bachelor's degree in telematics engineering 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Electronics for communications systems (ECS) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL) • Sensors, instruments and measurement systems (SIM) • Systems based on microprocessors (SBMIC)
<ul style="list-style-type: none"> • Bachelor's degree in automatics and industrial electronics engineering 	<ul style="list-style-type: none"> • Electronics for communications systems (ECS) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL)
<ul style="list-style-type: none"> • Telecommunication engineering 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL)

<ul style="list-style-type: none"> • Technical telecommunication engineering (speciality of electronic systems) 	<ul style="list-style-type: none"> • Electronics for communications systems (ECS) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL)
<ul style="list-style-type: none"> • Technical telecommunication engineering (other specialities) 	<ul style="list-style-type: none"> • Control theory and applications (CTA) • Electronics for communications systems (ECS) • Introduction to microelectronic technologies (IMT) • Programmable electronics (PROEL) • Sensors, instruments and measurement systems (SIM)
<ul style="list-style-type: none"> • Bachelor's degree in engineering physics 	<ul style="list-style-type: none"> • Electronics for communications systems (ECS) • Programmable electronics (PROEL) • Control theory and applications (CTA) • Systems based on microprocessors (SBMIC)

Mapping between bachelor subjects and MEE bridge subjects

Students currently enrolled in a bachelor program, may enrol for elective subjects that will enable them to skip bridge subjects on accessing to MEE. These subjects are as follows:

MEE bridge subject	GRESE	GRETST subject
Control theory and applications (CTA)	Electrònica de Potència i Sistemes de Control (EPSC)	Electrònica de Potència i Sistemes de Control (EPSC - 230121)
Electronics for communications systems (ECS)	Electrònica de Comunicacions (ECOMSE)	Electrònica de Comunicacions (ECOMSE – 230036)
Introduction to microelectronic technologies (IMT)	Fonaments de Micro i NanoTechnologies (FMNT)	Fonaments de Micro i Nano Tecnologies (FMNT – 230035)
Programmable electronics (PROEL)	Disseny de Sistemes Electrònics Digitals (DSED)	Disseny de Sistemes Electrònics Digitals (DSED – 230120)
Sensors, instruments and measurement systems (SIMS)	Instrumentació i Sistemes de Mesura (ISDM)	Instrumentació i Sistemes de Mesura (ISDM – 230122)
Systems based on microprocessors (SBMIC)	Disseny de Sistemes Basats en Microprocessadors (DSBM)	-

Annex 4: Additional bridging courses established by the Master's Academic Committee for admittance to MET

The following courses must be completed by students with non-typical admission profiles for admittance to MET. These courses are additional to the MET 120 ECTS credits and are belong to the Bachelor's Degree in Telecommunication Technologies and Services Engineering. They are taught in Catalan or Spanish:

Admission profile (Bachelor - Grau - Enginyeries)	Additional bridging subjects (Taught in Catalan or Spanish)
<ul style="list-style-type: none"> • Degree in engineering physics • Grau en enginyeria física <p>-----</p> <p>Semester distribution:</p> <p>1: AST (2B), FISE (2B) or POO (1B), DSBM (3A), TD (3A), CDA SISTEL (3B),</p> <p>2: ANTENES (3B), COMOPT (3B), MICROS (3B), DSED (3B), RCOMSISTEL (4A)</p>	<ul style="list-style-type: none"> • Antenes (ANTENES - 230053) • Aplicacions i serveis telemàtics (AST - 230020) • Comunicacions digitals avançades (CDA SISTEL - 230051) • Comunicacions òptiques (COMOPT - 230055) • Disseny de sistemes basats en microprocessadors (DSBM - 230091) • Disseny de sistemes electrònics digitals (DSED - 230120) • Funcions i sistemes electrònics (FISE - 230014) • Microones (MICROS - 230052) • Programació Orientada a Objectes (POO - 230086) • Radiocomunicacions (RCOMSISTEL - 230054) • Transmissió de dades (TD - 230093)