



Post Master degree Regulation

- *Communications for Intelligent Transportation Systems*
- *Security in Computer Systems and Communications*

ACADEMIC REGULATION

2017-2018

Table of Contents

1	CURRICULUM	3
2	OBTAINING THE POST MASTER DEGREE	6
2.1	MINIMUM NUMBER OF CREDITS REQUIRED TO GRADUATE	6
2.2	MINIMUM NUMBER OF CREDITS PER SEMESTER.....	6
3	EXAMS	6
3.1	TERMS	6
3.2	MAKEUP EXAMINATION SESSION	7
3.3	TIME CONSTRAINTS	7
4	FAILURES	7
4.1	FAILURES RELATED TO THE FALL SEMESTER ACADEMIC CURRICULUM RESULTS	7
4.2	FAILURES RELATED TO THE SPRING SEMESTER RESULTS	7
4.3	OTHER FAILING CASES	7
5	CONDITIONS FOR EXCLUSION	7
6	VALIDATION OF STUDENTS RESULTS	8

1 CURRICULUM

The curriculum of the 15-month Post master degree has the following components: lectures, small group sessions, projects and an internship.

The academic program (courses, projects) takes place over a period of nine months as follows:

A fall semester, starting in the beginning of October through the end of February, and
A spring semester, starting at the beginning of March through the end of June.

Participation in all activities is mandatory.

The internship takes place over a six-month period.

The internship itself must last at least 22 weeks (between July and December), and be carried out in an R&D lab or in a company.

The language of instruction is English.

The program is under the supervision of a Program Committee

The Program Committee must approve the internship subject.

ECTS credits are granted for each teaching unit (language courses, non-technical and technical courses), and for teaching units corresponding to the projects and internship.

Table 1: **Academic curriculum - Communications for Intelligent Transportation Systems**
and Table 2: Academic curriculum – illustrate the curriculum content for the two specialty diplomas.

Table 1: Academic curriculum - Communications for Intelligent Transportation Systems

Fall modules		Number of hours	ECTS
Technical courses			
MathEng	Basic Mathematical methods for engineers	21	3
NetMod	Network modeling	42	5
EmSim	Emulation and simulation methodologies	21	3
MobServ	Mobile applications and services	42	5
Mobsys	Mobile communication systems	42	5
Malis	Machine Learning and Intelligent System	42	5
MobMod	Mobility modeling	21	3
Stand	Standardization activities	21	3
Non-technical courses			
ManagIntro	Introduction to management	42	5
TeamLead	Personal development and team leadership	42	5
Property	Intellectual property law	21	3
Entrep	Entrepreneurship and Capital Venture	21	3
Green_It	Sustainable ICT's	21	3
Innov	Innovation and new product development	21	3
Language courses			
	English	22	
Project			
	90 hours	90	7

Spring modules		Number of hours	ECTS
Technical courses			
MobWat	Wireless access technologies	21	3
Radio	Radio engineering	42	5
Moblp	Mobile Networking	21	3
MobAdv	Mobile advanced networks	21	3
PlanTP	Transportation planning	21	3
Planlfr	Infrastructure planning	21	3
NetSoft	Network Softwerisation	21	3
APPIOT	lot Application Protocols	21	3
TraffEEc	Emission and Traffic efficiency	21	3
Non-technical courses			
Business	Business simulation	42	5
ProjMan	Project management	42	5
SATT	Sociological Approaches of Telecom Technologies	21	3
Law	General introduction to Law	21	3
Language courses			
	English*	22	1
Project			
	90 hours	90	7

*The English level required to obtain the language credit is B2.

Table 2: Academic curriculum – Security in Computer Systems and Communications

Fall modules		Number of hours	ECTS
Technical courses			
SecCom	Secure Communications	42	5
SysSec	System and network security	42	5
Netw_I	Introduction to Computer networking and internet	42	5
MobSys	Mobile communication systems	42	5
ImCod	Image Coding	21	3
ImProc	Digital Image Processing	21	3
Stat	Statistical data analysis	21	3
Clouds	Distributed Systems and Cloud Computing	42	5
Non-technical courses			
ManagIntro	Introduction to management	42	5
TeamLead	Personal development and team leadership	42	5
Property	Intellectual property law	21	3
Entrep	Entrepreneurship and Capital venture	21	3
Green_It	Sustainable ICT's	21	3
Innov	Innovation and new product development	21	3
Language courses			
	English	22	
Project			
	90 hours	90	7

Spring modules		Number of hours	ECTS
Technical courses			
SecAppli	Security applications in networking and distributed systems	21	3
Forensics	Cyber-crime and Computer Forensics	42	5
Hwsec	Hardware Security	21	3
ImSecu	Imaging for security applications: Watermarking and biometrics	21	3
Moblp	Mobile networking	21	3
FormalMet	FormalMethods-Formal specification and verification of systems	21	3
MobAdv	Mobile Advanced Networks	21	3
Non-technical courses			
Business	Business simulation	42	5
ProjMan	Project management	42	5
SATT	Sociological Approaches of Telecom Technologies	21	3
Law	General introduction to Law	21	3
Language courses			
	English*	22	1
Project			
	90 hours	90	7

*The English level required to obtain the language credit is B2.

2 Obtaining the Post Master Degree

The specialty diploma is delivered to students who receive the required number of credits within the designated period based on the following terms.

2.1 Minimum number of credits required to graduate

A total of **90 ECTS credits** are required to graduate. These credits are distributed as follows:

October through the end of June : Academic curriculum - Fall + Spring semesters	ECTS
Technical teaching units	30
Language courses	1
Non-technical teaching units	15
Project	14

July through mid-December	ECTS
Internship (22 weeks)	30

2.2 Minimum number of credits per semester

For each semester, students must validate at least 15 credits from the technical teaching units.

Additional credits obtained by students are mentioned in the appendix attached to the Diploma.

Credits from the technical teaching units cannot be carried over from one semester to another.

Students must validate at least 5 credits from the non-technical teaching units per semester.

Project credits are obtained over both semesters, either through the same subject, or through a different project per semester.

3 Exams

3.1 Terms

Teaching units are assessed based on written and oral exams scheduled at the end of each semester.

Their organization is the responsibility of the professors.

Grades are sent to students within two weeks following the end of term.

Projects are evaluated based on a written report and an oral presentation.

Students must attend the examination sessions of the courses in which they are registered. Absences to exams without any valid reason notified in advance to the Program Committee or without a medical certificate invalidate the corresponding credits without the possibility of re-taking the exams at the second session.

Undesirable behavior during exams will result in their nullification, and disciplinary sanctions might be taken by the Program Committee.

Each exam and project is graded on a 20-point scale.

A grade of at least 10 over 20 must be obtained for each project or course to receive the corresponding credit.

Internships are defended in front of a jury made up of the academic head and an outside expert who may be the industrial supervisor.

Internships are assessed on five criteria: time management, conceptual work, results, report, and presentation. The five grades are combined and weighted as follows: a 1 coefficient for time management, report and presentation, a

2 coefficient for conceptual work and results. To obtain the 30 internship ECTS credits, students must receive a final grade of at least 10 over 20.

3.2 Makeup examination session

For each course (of technical and non-technical teaching units) and the project, a makeup session is possible. If after the makeup exam, a student does not obtain a grade of at least 10 over 20, the corresponding ECTS credits are not validated.

The organization of makeup exams is under the responsibility of the course professor. Their dates depend on the time constraints laid out in section 3.3.

Semester projects can be re-taken according to the terms set with each professor.

3.3 Time Constraints

Before being able to start an internship, students must have validated at least 15 credits of technical teaching units and 5 credits from non-technical units in the Fall semester before May 31.

This means that students who wish to re-take an exam for a Fall semester course must obtain the authorization (from the professor for which they are resitting the exam) to receive the result of that exam before May 31.

4 Failures

4.1 Failures related to the Fall semester academic curriculum results

Students who do not obtain at least 12 credits from the Fall semester technical units before May 31 are automatically excluded from the program. Students obtaining between 12 and 14 technical unit credits will have their cases examined by the Program Committee which decides which students to exclude from the program and which students will be allowed to continue.

Students who are excluded are not allowed to begin their internships. They are allowed to attend the first examination session in the spring, but not to the makeup session. Upon request, a student can obtain a credit certificate showing the credits validated.

4.2 Failures related to the Spring semester results

Students who do not obtain the minimum number of credits in the technical or non-technical units or in the term project may have to repeat their year of study. The Pedagogical Committee will examine these students' situations on a case by case basis and recommend to the Program Committee the students who should repeat the academic year. In all cases, credits that have been obtained that year are still valid.

4.3 Other failing cases

Students fail if they do not validate their language credit for the certification of the B2 level in English. The same applies to students who do not validate their internship.

5 Conditions for exclusion

The Program Committee can decide to exclude a student for the following reasons:

- Insufficient number of credits based on the rules laid out in section 4 "Failing situations"
- Disciplinary reasons: breach of responsibilities written in the Academic Charter.

6 Validation of students results

A Teaching Committee meets at the end of each semester to examine students results. It notifies the Program Committee about any possible failing cases as early as possible.

The Program Committee validates all the results required to graduate.

Date:

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