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GUIDE FOR EXCHANGE STUDENTS COMING TO THE CIVIL ENGINEERING DEPARTMENT AT INSA TOULOUSE

Contents

FOREWORD AND ACKNOWLEDGEMENTS

The aim of this document is to help exchange students to define their learning agreement. We strive to keep this document as up to date and complete as possible, but it is possible that some information may be incorrect, so we recommend some caution. Please don't hesitate if you have some suggestions for improving this document.

Taking into account the large number of exchange students that we welcome into the department of Civil Engineering each semester, it is difficult to support everyone through each stage of their learning agreement. We therefore advise you to read this document carefully, and we will be available if you need any further advice.

I would like to thank Joanna Rothwell for the English translation of this document as well as Claire Oms for her careful reading and advice, in the past, present and future ☺.

I hope that your exchange stay at INSA Toulouse provides you with many good memories rich in new experiences and discoveries.

Aurélie Papon

1. GENERAL

1.1 THE ROLE OF THE DEPARTMENT COORDINATOR

The documents involved in the exchange procedure relate to two entities in the host university.

- The institutional co-ordinator: that is Carine Chakki (carine.chakki@insa-toulouse.fr) for the students coming from South America and Mexico and Aymara Cruz (relint.incoming@insa-toulouse.fr) for the other students. Their office is situated in the Department of International Relations (DRI). They are responsible for answering questions regarding applications, the intensive French course and accommodation. They send the acceptance letters.

- The departmental co-ordinator: for Civil Engineering at INSA, that's Aurélie Papon (papon@insa-toulouse.fr). Her office is situated in the Civil Engineering building on the first floor (GC116). She is responsible for all the educational aspects. In particular, she helps students to complete their learning agreement.

For ERASMUS exchange students, here is the following information needed to complete the learning agreement:

The Receiving Institution

Name	INSA Toulouse	Faculty	-
Erasmus code (if applicable)	F TOULOUS14	Department	Civil Engineering
Address	135 avenue de Rangueil, 31077 Toulouse cedex 4, France	Country, Country code	France, FR
Contact person name	Aymara Cruz	Contact person e-mail / phone	relint.incoming@insa-toulouse.fr, (+33) 5 61 55 95 42

Responsible person in the receiving institution:

Name: Aurélie Papon

Function: Erasmus Coordinator

Phone number: (+33) 5 61 55 99 09

E-mail: aurelie.papon@insa-toulouse.fr

1.2 ANNUAL CALENDAR

The academic year consists of two semesters: the autumn semester (September - January) and the spring semester (January - June).

Students have five periods during which they have no lectures or examinations: the Thanksgiving holiday (late October - early November), Christmas holidays (end of December - beginning of January), the winter holidays (late February - early March), spring break (late April - early May) and summer holidays (July -August). **However, 5th year students have no Thanksgiving holiday as they begin their lectures in October.**

2. LEARNING AGREEMENT DETAILS

The learning agreement for the first semester must be completed before 15th October.

The learning agreement for the second semester must be completed before 25th February.

2.1 DIFFICULTIES TO CONSIDER

The development of the learning agreement is a long and difficult process because there are many constraints to consider, including:

- **The requirements of the university of origin**: *what courses will be recognized by your university?* Depending on the university, civil engineering can include building physics[1], urban engineering etc. You must therefore check before your departure that there are suitable courses at INSA Toulouse that interest you. *How many ECTS credits are required by your exchange program / grant (ERASMUS etc.) and your university?* For example, to receive the ERASMUS grant, you must obtain 15 ECTS credits per semester. For comparison, full-time students following the complete curriculum at INSA must obtain 30 ECTS credits per semester.

- **The timetable constraints**: Civil Engineering classes are not held every week on the same day and at the same time, it changes every week. The schedule is available online here: https://planex.insa-toulouse.fr/. This timetable is available at the beginning of each semester and is constantly being updated and changed. You must check it regularly. Be aware, the "French as a Foreign Language" courses are not shown in this schedule. They take place on Thursday afternoons.

  To use this timetable, you must first choose the group that corresponds to the course in which you are interested. In your case, you choose:
  - for 2nd year courses: 2 STPI, then 2_IC
  - for 3rd year courses: 3 STPI, then 3_IC
  - for 4th year courses: GC, then 4GC
  - for 5th year courses: GC, then 5GC

  For each year, there are different sub-groups that correspond to the TD[2] groups. You will be told your TD groups at the beginning of the semester. Don't worry about subgroups 3 AGC, 4 AGC and 5 AGC, which correspond to a specific sector at INSA Toulouse and are not accessible to exchange students.

  Each module (Unité de Formation > "UF") can be divided into several different classes. For a list of classes related to each module, please see Appendices 1 & 2. The timetable shows the individual classes, not the overall module, and on it you will find the name of the class and the room.

[1] Building Physics includes heating, air conditioning, aeraulics, acoustics, etc.

[2] TD means tutorials. This is a group session (26 students) which is intended to implement and practice what has been taught in lectures (CM).

For example, if you chose the Concrete and timber structures module (I4GCBA12) then according to Appendix 1, this module contains 3 classes: Concrete, Timber and Eurocode 1. This is a 4th year module. Therefore, on the timetable you should select the 4 GC group, and find all the classes for I4GCBA12. For example, if the time table says:

8h00 – 9h15
I4GCBA12 Béton armé
GC 218 (VP-F) 30

This means that you have a tutorial session of concrete in room 218 in the Civil Engineering Building from 8am to 9:15am. The first number of the room indicates the floor, so room 218 is on the 2nd floor.

- **The level of knowledge required for the module (prerequisites)**. The level of knowledge required is specified in the module descriptions on the Internet and for some modules it is specified in this guide (see Appendices 1 & 2).

2.2 SIX DIFFERENT PROFILES

- Students enrolled on the classic course attend classes grouped into four components:
  - Engineering and Science
  - Human Science (language courses, management etc.)
  - Open Modules
  - Sports and Physical Activities

Distribution of credits for one semester is generally as follows: 20 ECTS for Engineering and Science, and 10 ECTS for Humanities, Open modules and Sports and Physical Activities. We believe that exchange students should also follow this ratio of 2/3rds and 1/3rd.

- The schedules are designed for four different Construction Engineering (IC) student profiles:

- A 2nd year student who has chosen a common core with a specialisation in Civil Engineering
- A 2nd year student who has chosen a common core with a specialisation in Mechanical Engineering
- A 3rd year student who has chosen a common core with a specialisation in Civil Engineering
- A 3rd year student who has chosen a common core with a specialisation in Mechanical Engineering.

- The schedules are designed for five different Civil Engineering (GC) student profiles:

- A 4th year student who has chosen a common core with a specialisation in Structural Engineering (“Bâtiment et ouvrages” > “BO”).

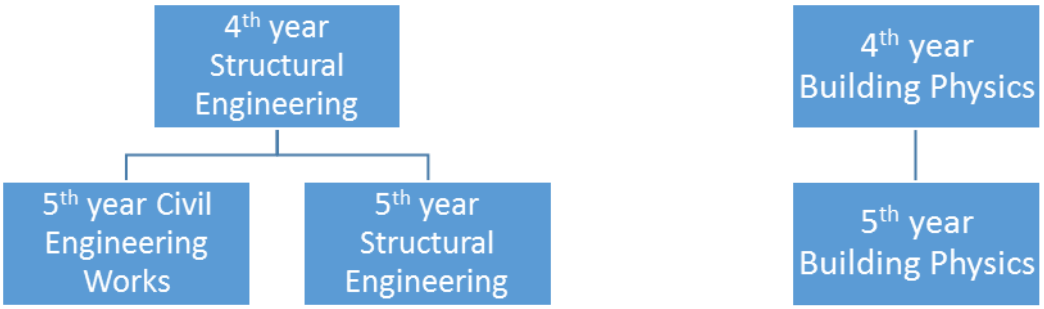
- A 4th year student who has chosen a common core with a specialisation in Building Physics[3] ("Bâtiment et génie climatique" > “Clim”).

- A 5th year student who has chosen a common core with a specialisation in Civil Engineering Works[4] (“Travaux publics” > “TP”), and an optional module (“UF optionnelle”).

- A 5th year student who has chosen a common core with a specialisation in Structural Engineering (“Ingénierie du bâtiment” > "Bât"), and an optional module (“UF optionnelle”).

- A 5th year student who has chosen a common core with a specialisation in Building Physics (“Génie climatique” > “Clim”), and an optional module (“UF optionnelle”).

The following diagrams illustrate the routes available to students following the classic course.



We strongly recommend that you choose a dominant specialisation from these seven profiles[5]. This will allow you to stay with the same class the entire semester (or year) and will help you to integrate. In addition, it will make your timetable a lot simpler.

If you cannot follow this advice for whatever reason, we believe it is reasonable to choose a dominant specialisation and **one** module from one of the other four specialisations.

3. FOCUS ON THE COURSES

Here you will find module descriptions and the prerequisites required for the module as well as a bibliography: https://www.insa-toulouse.fr/offre-de-formation/ (The English version will be available soon).

In the **appendices**, you will find the Engineering and Science modules related to Civil Engineering. Other Engineering and Science modules are available upon specific request of the student.

Each module is hold once a year, either in the first semester or the second.

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[3] Building Physics includes Heating, Air Conditioning, Aeraulics, Acoustics etc. Also referred to as “Climate Engineering” on the website.

[4] Civil Engineering Works includes Roads, Bridges, Tunnels, Geotechnics etc.

[5] The profiles with a specialisation in Mechanical Engineering are not available to exchange students who have applied for a Civil Engineering course.

4. DOING AN INTERNSHIP DURING YOUR TIME AT INSA

4.1 FINDING AN INTERNSHIP

In the 4th year (and 5th year) students following the standard course must do a short internship (or long respectively). A short internship (2-3 months) is worth 9 ECTS and a long internship (5 months) is worth 21 credits. For exchange students who wish to do an internship, there are two options available:

- If you wish the internship to be included in your learning agreement and therefore count for credits, you are required to write a report and make a presentation supervised by a lecturer at INSA.
- If you do not wish to include the internship in your learning agreement, the only requirement is proof that the internship is organised well.

Traditionally, Civil Engineering internships take place in companies. Students who wish to do an internship in a company should do the research themselves. We cannot guarantee every student will find a placement. Of course, due to the economic climate, it is more difficult than usual to find an internship. That is why, until a placement agreement (see section 4.2) has been signed between the company and INSA Toulouse, the course cannot appear on a learning agreement.

To assist you in finding an internship, in addition to your own contacts and methods, several tools are provided by INSA. For privacy reasons, you can't access this information until you are enrolled at INSA.

Once you are enrolled, you can find further information on moodle: https://moodle-3a.insa-toulouse.fr/login/index.php and internship opportunities will be sent to you by e-mail.

In addition, every year in mid-October there is a Business Forum held at INSA Toulouse. For one day, companies set up booths in the gym and answer your questions on the activities of their company. It is often a good opportunity for students to submit a CV.

4.2 PROCEDURE TO FOLLOW

Once you have found a company to accommodate you, you must follow a procedure defined by INSA. You need to establish an agreement between the company and INSA, which gives you, among other things, protection against industrial accidents and occupational diseases. **The agreement is mandatory for every student!** Your agreement should be approved by the internship office of INSA and internship coordinator for the Department of Civil Engineering. To do this, you must apply for an internship agreement on the site: https://conventiondestage.insa-toulouse.fr/. Choose "j'ai trouvé un stage" then "je veux faire une demande de convention de stage" and "stage pour étudiant d'échange". Don't forget to send an e-mail to inform the head of the Civil Engineering Department internships that you have requested an internship agreement.

NB: An internship cannot last more than 6 months. An internship may not exceed the end date of your stay at INSA and cannot be across two academic years (it must finish before the end of September).

APPENDIX 1: COURSES S1

Type	Year	Code	Title	ECTS	Language	Prerequisites	Courses/Comments
Sport and Physical Activities			Sport and Physical Activities	2	FR		
Science and Engineering	2	I2ICME31	Solid mechanics	6	FR		Mechanics (4 ECTS) + strength of materials (2 ECTS)
Science and Engineering	3	I3ICMC51	Cementitious materials and Environment	3	FR		
Science and Engineering	3	I3ICCO51-GC	Conception for civil engineering	6	FR		Concrete + Building Technology
Science and Engineering	3	I3ICMM51	Continuum mechanics (solids and fluids)	7	FR		
Science and Engineering	3	I3CCIE11	Ecological transition, Reduction of greenhouse gases, Responsibilities, Environment	3	FR		
Science and Engineering	4	I4GCBA12	Concrete and Timber structures	6	FR (EN)	Reinforced concrete (basic) + strength of materials (advanced)	Timber structures - EC1 (3 ECTS) + Reinforced concrete (3 ECTS) Part of reinforced concrete in English
Science and Engineering	4	I4GCTF11	Comfort engineering	6	FR	Fluid Mechanics (advanced)	
Science and Engineering	4	I4GCRM11	Advanced mechanics	7	FR	Structural analysis (advanced)	non-linear and numerical computation
Science and Engineering	4	I4GCMS21	Geotechnics 2	5	FR	Geotechnics (basic)	
Science and Engineering	4	I4GCTF31	Building networks (hot and cold water networks, aeraulics)	6	FR	Fluid Mechanics (advanced)	hot and cold water networks, aeraulics
Science and Engineering	4	I4GCTF71	Building devices (thermodynamic devices, electricity)	6	FR		Experimental science + electricity + thermodynamic devices
Science and Engineering	4	I4GCPJ31	Multidisciplinary project Concrete and Timber	10	EN	Reinforced concrete (basic) + strength of materials (advanced)	

Science and Engineering	5	I5GCGE42	Road engineering and structures	6	FR		Road technology + Tunnels + management of bridges
Science and Engineering	5	I5GCBP11	Bridge Project	7	FR	Geotechnics and prestressed concrete (advanced)	
Science and Engineering	5	I5GCBA11	Concrete Structures and masonry	7	FR	Reinforced Concrete and structural analysis (advanced)	Seismic design + Fire resistance + masonry
Science and Engineering	5	I5GCBE31	Frames and Composite steel and concrete structures	6	FR	Steel structures (basic) and strength of materials (advanced)	Frame project + Composite steel and concrete structures
Science and Engineering	5	I5GCNR12	Buildings of the future	6	FR & EN		High Quality Environmental standard + renewable energies in English (2 ECTS) + Building management system + Dynamic Thermal Simulation (TRNSYS) in English (2 ECTS)
Science and Engineering	5	I5GCTF11	Eco-building and Environmental impact	5	FR		
Science and Engineering	5	I5GCPJ12	Project ownership assistance	5	FR		
Science and Engineering	5	I5GCMOBE01	BIM Environment	5	FR	BIM (basic)	
Science and Engineering	5	I5PTGU35	Urban project	8	MIX EN FR		very limited availability
Science and Engineering	5	KGCD9ABU*	Durability of construction materials (*Physical Chemistry of Durability of cement-based materials)	2	EN		
Science and Engineering	5	KGCD9ABU*	Durability of construction materials (*Thermo-hydro-chemo-mechanical couplings for predicting the durability of concrete structures)	2	MIX EN FR		
Science and Engineering	5	KGCD9AVU*	Binders and concretes. Mix design and environmental impact (*Mix design)	1,5	MIX EN FR		
Human Science	2	I2CCGE31*	Company knowledge and communication (*Macro-economy)	1,5	FR	B2 French	
Human Science	2	I2CCGE31*	Company knowledge and communication (*English: Oral presentations and cultural modules)	1,5	EN	B1/B2 English	

Human Science	3	I3CCGE31*	Job search and languages (*English: Job search)	1,5	EN	B1-B2 English	
Human Science	4	I4DHUM41*	Humanities 41: Acting responsibly (*Responsible business strategy)	2,5	FR or EN	B2 French + introduction to business management	Course offered in English (very limited availability)
Human Science	4	I4DHUM41*	Humanities 41: Acting responsibly (*Business Finance)	2,5	FR or EN	B2 French + financial accounting	Course offered in English (very limited availability)
Human Science	5	I5CCGE21*	Team management and professional project (*Team management)	2	FR or EN	B2 French or B2 English	
Human Science	5	I5CCGE21*	Team management and professional project (*Social Psychology & Ethics)	1,5	FR	C1 French	
Human Science		ERASLF12	FLE (French as a foreign language)	5	FR		This course is taught intensively before lectures commence at INSA. financial contribution
Human Science		ERASLF21	FLE (French as a foreign language)	3	FR		Module taught during the whole semester

APPENDIX 2: COURSES S2

Type	Year	Code	Title	ECTS	Language	Prerequisites	Courses/Comments
Sport and Physical Activities			Sport and Physical Activities	2	FR		
Open Module	3		Open Module	2	FR		
Science and Engineering	2	I2ICTI41	Conception and Materials	6	FR		
Science and Engineering	2	I2ICME41	Solid mechanics (II)	6	FR		Dynamics (3 ECTS) + strength of materials 2 (3 ECTS)
Science and Engineering	3	I3ICMS61	Geotechnics 1	4	FR		
Science and Engineering	3	I3ICBA61	Reinforced Concrete and prestressed concrete	5	FR		Reinforced Concrete (4 ECTS) + prestressed concrete (1 ECTS)
Science and Engineering	3	I3ICFT61	Heat transfer and Fluid Mechanics II	5	FR		Heat transfer (2 ECTS) + Fluid Mechanics (3 ECTS)
Science and Engineering	3	I3ICAS61	Structural analysis and in-depth courses	4	FR	Structural analysis (bases)	Structural analysis (3 ECTS) + in-depth courses (2 ECTS)
Science and Engineering	4	I4GCOE11	Assessment and retrofitting of existing buildings and structures	2	FR		
Science and Engineering	4	I4GCCO21	Bracing and Steel structures	5	FR	Reinforced Concrete (advanced) and Structural Analysis (advanced)	Bracing (2 ECTS) + Steel structures (3 ECTS)
Science and Engineering	4	I4GCBA32	Prestressed concrete and bridges	6	FR	Prestressed concrete (bases)	Prestressed Concrete (4 ECTS) + Bridges (2 ECTS)
Science and Engineering	4	I4GCTF51	Air Conditioning	6	FR		
Science and Engineering	4	I4GCAC22	Acoustics	5	FR		
Science and Engineering	4	I4GCRE11	Initiation to research	2	MIX EN FR		The Scientific English course in module I4DHUM42 must be taken in parallel.

Science and Engineering	4	A4GCEC21	Sustainable building (*Sustainable materials, International Civil Engineering)	4	EN		Sustainable materials (2 ECTS) + International Civil Engineering (2 ECTS)
Science and Engineering	4	I4GCPJ32	Reinforced concrete structure project	5	EN	Reinforced Concrete (advanced) and Structural Analysis (advanced)	
Science and Engineering	5	I5CCST21	Training period	9	FR	To find a host company for the internship (2-3 months)	
Science and Engineering	5	I5CCST21	Training period (Project Graduation)	21	FR	To find a host company for the internship (5-6 months)	
Human Science	2	I2CCGE31*	Company knowledge and communication (*Structuring an argument and debating)	2,5	EN	B1-B2 English	
Human Science	3	I3CCGE41	Business Management and Business English	5	FR & EN	B2 French + B1 English	
Human Science	4	I4DHUM42*	Humanities 42: Creating, innovating now & in the future (*Scientific English Module)	3	EN	B1-B2 Anglais	The module “Introduction to resaerch” (I4GCRE11) must be taken in parallel.
Human Science	4	I4DHUM42*	Humanities 42: Creating, innovating now & in the future (*Prospective and imaginary of the future)	2	FR	C1-Français	
Human Science		ERASLF31	FLE (French as a foreign language)	3	FR		Module taught during the whole semester financial contribution