

# CONTRAT D'ETUDES - LEARNING AGREEMENT

## Règles générales

- La présence aux séances d'enseignement des modules choisis est obligatoire. Chaque module comporte des séances de travail encadrées et non encadrées et permet, s'il est validé, d'obtenir des crédits. Le module est validé avec l'obtention d'une note d'au moins 10 sur 20 (10/20).
- Choisissez un programme d'études : maximum 33 crédits par semestre. Un crédit équivaut à environ 25 heures de travail (encadré et non encadré). Le programme d'études devra comporter **au minimum 15 crédits** pour un semestre.
- Choisissez les modules dans le programme correspondant au niveau de licence ou de master.
- Les programmes d'études sont **susceptibles d'être réaménagés** en fonction du nombre d'élèves inscrits aux modules. Un programme de remplacement vous serait alors proposé.
- Si un projet est souhaité dans les laboratoires de l'ISEP, vous l'indiquez dans le paragraphe prévu à cet effet dans la section projet.
- Si un stage en entreprise est souhaité après avoir passé un semestre académique à l'ISEP, veuillez l'indiquer dans le paragraphe prévu à cet effet, à la fin du document.
- Votre présence à l'ISEP est nécessaire :
  - pour le Semestre 1 (S1) : du 1<sup>er</sup> septembre au 31 janvier
  - pour le Semestre 2 (S2) : du 1<sup>er</sup> février au 30 juin

## General rules

- Attendance to the selected modules is mandatory. Each module consists of sessions under the supervision of a Faculty member and independent studies. Credits are provided if you pass the module, i.e. with a minimum grade of 10 out of 20 (10/20).
- You have to establish your study programme; you can enrol **for no more than 33** credits for each semester. One credit requires 25 hours of workload, including supervised and independent studies.
- Your study programme has to include **at least 15 credits** for each semester.
- You have to choose your study programme in undergraduate or graduate level.
- Depending on the number of students enrolled in each module and therefore its effective delivery, **your study programme may be modified**. Some modules would therefore be proposed as substitution.
- If you intend to do a project in our laboratories, you can indicate it in the project section.
- If you intend to do an internship after an academic semester at ISEP, you indicate it in the appropriate section, at the end of the document.
- Your attendance at ISEP is required:
  - For the 1<sup>st</sup> semester (S1): from September 1<sup>st</sup> to January, 31<sup>st</sup>
  - For the 2<sup>nd</sup> semester (S2): from February 1<sup>st</sup> to June, 30<sup>th</sup>

|                                                                                                                                                |                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Nom et Signature de l'étudiant - <i>Student's name and signature</i></b></p><br><br><br><br><br><br><br><br><br><br><p><b>Date :</b></p> | <p><b>Etablissement d'origine – Nom et Signature du Coordinateur Institutionnel<br/><i>Sending Institution - Institutional Coordinator's name and signature</i></b></p><br><br><br><br><br><br><br><br><br><br><p><b>Date:</b></p> |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## COURS / COURSES

### Niveau licence – Undergraduate level

The following courses are taught in **English**. Select courses in one of the blocks bellow:

#### Block 1:

| Code                    | Module name                        | Credits | Yes                      |
|-------------------------|------------------------------------|---------|--------------------------|
| <a href="#">IG.2307</a> | Data Acquisition and Processing    | 5       | <input type="checkbox"/> |
| <a href="#">IT.2301</a> | Internet of Things                 | 5       | <input type="checkbox"/> |
| <a href="#">IE.2307</a> | Electronics for IoT                | 5       | <input type="checkbox"/> |
| <a href="#">II.2314</a> | Data Bases & Big Data              | 5       | <input type="checkbox"/> |
| <a href="#">II.2317</a> | Cybersecurity                      | 5       | <input type="checkbox"/> |
| <a href="#">II.2315</a> | Advanced Algorithmic & Programming | 5       | <input type="checkbox"/> |

Total

#### Block 2:

| Code                    | Module name                                 | Credits | Yes                      |
|-------------------------|---------------------------------------------|---------|--------------------------|
| <a href="#">II.2314</a> | Data Bases & Big Data                       | 5       | <input type="checkbox"/> |
| <a href="#">II.2313</a> | Data Analysis                               | 5       | <input type="checkbox"/> |
| <a href="#">II.2315</a> | Advanced Algorithmic & Programming          | 5       | <input type="checkbox"/> |
| <a href="#">II.2306</a> | Web Technologies                            | 5       | <input type="checkbox"/> |
| <a href="#">II.2317</a> | Cybersecurity                               | 5       | <input type="checkbox"/> |
| <a href="#">II.2312</a> | Methods and Tools for Business Intelligence | 5       | <input type="checkbox"/> |

Total

If you wish, you may add the following modules:

| Code                    | Module name              | Credits | Yes                      |
|-------------------------|--------------------------|---------|--------------------------|
| M.GC102                 | Language : French        | 5       | <input type="checkbox"/> |
| <a href="#">IH.3505</a> | Management Training      | 2       | <input type="checkbox"/> |
| IX.2308                 | Introduction to research | 5       | <input type="checkbox"/> |
| <a href="#">IR.1101</a> | Networks Fundamentals    | 4       | <input type="checkbox"/> |

Total number of credits chosen for the semester at ISEP

Les modules suivants sont dispensés en **français**.

Cours de la 1<sup>ère</sup> année du cycle d'ingénieur

Choisissez les cours dans un seul bloc :

**Bloc 1**

| Code    | Nom du module                                    | Crédits | Oui                      |
|---------|--------------------------------------------------|---------|--------------------------|
| IE.1101 | Système numérique (APP) / Électronique et Signal | 12      | <input type="checkbox"/> |
| IR.1101 | Réseaux                                          | 4       | <input type="checkbox"/> |
| II.1102 | Algorithmique et programmation                   | 6       | <input type="checkbox"/> |
| IF.1104 | Science et traitement des données                | 3       | <input type="checkbox"/> |
| AL.1101 | Langue : anglais                                 | 2       | <input type="checkbox"/> |

Total

**Bloc 2**

| Code    | Nom du module                                                | Crédits | Oui                      |
|---------|--------------------------------------------------------------|---------|--------------------------|
| II.1101 | Système numérique (APP) / Télécommunications et Informatique | 12      | <input type="checkbox"/> |
| IE.1102 | Architecture des ordinateurs                                 | 4       | <input type="checkbox"/> |
| II.1102 | Algorithmique et programmation                               | 6       | <input type="checkbox"/> |
| IF.1104 | Science et traitement des données                            | 3       | <input type="checkbox"/> |
| AL.1101 | Langue : anglais                                             | 2       | <input type="checkbox"/> |

Total

Pour connaître les détails des modules dispensés au cours de cette année, merci de se référer à :

[Modules A1](#)

Cours de la 2<sup>ème</sup> année du cycle d'ingénieur

Choisissez les cours dans un seul bloc :

**Bloc 1**

| Code    | Nom du module                    | Crédits | Oui                      |
|---------|----------------------------------|---------|--------------------------|
| IT.2305 | Communications radios            | 5       | <input type="checkbox"/> |
| IT.2302 | Technologies mobiles cellulaires | 5       | <input type="checkbox"/> |

Total

**Bloc 2**

| Code    | Nom du module  | Crédits | Oui                      |
|---------|----------------|---------|--------------------------|
| II.2305 | Génie logiciel | 5       | <input type="checkbox"/> |

Total

Pour connaître les détails des modules dispensés au cours de cette année, merci de se référer à :

[Modules A2](#)

## Graduate level

Modules are taught in **English** and are grouped in learning tracks. For details of offered modules, please visit this web page: <http://en.isep.fr/studying-at-isep/course-catalog>

Please select modules in **one learning track** in the following table. **Students can select all Major and 2 Minor courses.**

| Learning track name               | Code                    | Module name                                   | Type  | Credits | Ye                       |
|-----------------------------------|-------------------------|-----------------------------------------------|-------|---------|--------------------------|
| Information Systems               | <a href="#">II.3512</a> | Information Systems and Business Organization | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3519</a> | Risk Management and Audit                     | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3502</a> | Distributed Programming & Architectures       | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3506</a> | Advanced Web Technologies                     | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3510</a> | Mobile Development                            | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3510</a> | Machine Learning                              | Minor | 5       | <input type="checkbox"/> |
|                                   | IP.3510                 | Learning Track Project                        | Major | 5       | <input type="checkbox"/> |
| Software Engineering              | <a href="#">II.3502</a> | Distributed Architectures and Programming     | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3516</a> | Languages and Compilers                       | Major | 2.5     | <input type="checkbox"/> |
|                                   | <a href="#">II.3518</a> | Formal Approaches                             | Major | 2.5     | <input type="checkbox"/> |
|                                   | <a href="#">II.3506</a> | Advanced Web Technologies                     | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3510</a> | Mobile Development                            | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3519</a> | Risk Management and Audit                     | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3510</a> | Machine Learning                              | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3504</a> | 3D, Mixed & Augmented Reality                 | Minor | 5       | <input type="checkbox"/> |
| Wireless Telecommunications & IoT | <a href="#">IE.3522</a> | System Integration                            | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IR.3504</a> | Services and Convergent Technologies          | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IT.3501</a> | Information Processing & High-Speed Networks  | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3510</a> | Machine Learning                              | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3510</a> | Mobile Development                            | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IE.3515</a> | Connected and Autonomous Vehicles             | Minor | 5       | <input type="checkbox"/> |
|                                   | IP.3510                 | Learning Track Project                        | Major | 5       | <input type="checkbox"/> |
| Digital Security & Networks       | <a href="#">IR.3504</a> | Services and Convergent Technologies          | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3519</a> | Risk Management and Audit                     | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IR.3505</a> | Advanced Routing and Architectures            | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3512</a> | Information Systems and Business Organization | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IT.3501</a> | Information Processing & High-Speed Networks  | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3506</a> | Advanced Web Technologies                     | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3510</a> | Mobile Development                            | Minor | 5       | <input type="checkbox"/> |
| Healthcare Digital Technology     | <a href="#">IE.3514</a> | Global Health Systems                         | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3510</a> | Machine Learning                              | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3504</a> | 3D, Mixed & Augmented Reality                 | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IG.3501</a> | Medical Robotics                              | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3510</a> | Mobile Development                            | Minor | 5       | <input type="checkbox"/> |
|                                   | IP.3510                 | Learning Track Project                        | Major | 5       | <input type="checkbox"/> |
| Embedded Systems Design           | <a href="#">IE.3510</a> | System Constraints and Implementation         | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IE.3511</a> | Reliability and Safety                        | Major | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IE.3517</a> | Automatics and Real Time                      | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">IE.3515</a> | Connected and Autonomous Vehicles             | Minor | 5       | <input type="checkbox"/> |
|                                   | <a href="#">II.3518</a> | Formal Approaches                             | Minor | 2.5     | <input type="checkbox"/> |
|                                   | <a href="#">II.3516</a> | Languages and Compilers                       | Minor | 2.5     | <input type="checkbox"/> |
|                                   | <a href="#">IG.3501</a> | Medical Robotics                              | Minor | 5       | <input type="checkbox"/> |
|                                   | IP.3510                 | Learning Track Project                        | Major | 5       | <input type="checkbox"/> |

|                       |                         |                                               |       |   |                          |
|-----------------------|-------------------------|-----------------------------------------------|-------|---|--------------------------|
| Business Intelligence | <a href="#">II.3521</a> | Semantic WEB and Knowledge Management         | Major | 5 | <input type="checkbox"/> |
|                       | <a href="#">IG.3510</a> | Machine Learning                              | Major | 5 | <input type="checkbox"/> |
|                       | <a href="#">II.3512</a> | Information Systems and Business Organization | Minor | 5 | <input type="checkbox"/> |
|                       | <a href="#">II.3510</a> | Mobile Development                            | Minor | 5 | <input type="checkbox"/> |
|                       | <a href="#">II.3506</a> | Advanced Web Technologies                     | Minor | 5 | <input type="checkbox"/> |
|                       | <a href="#">II.3519</a> | Risk Management and Audit                     | Minor | 5 | <input type="checkbox"/> |
|                       | <a href="#">II.3502</a> | Distributed Programming & Architectures       | Minor | 5 | <input type="checkbox"/> |
|                       | IP.3510                 | Learning Track Project                        | Major | 5 | <input type="checkbox"/> |

If you wish, you may add the following modules:

| Code                    | Module name              | Credits | Yes                      |
|-------------------------|--------------------------|---------|--------------------------|
| M.GC102                 | Language : French        | 5       | <input type="checkbox"/> |
| <a href="#">IH.3505</a> | Management Training      | 2       | <input type="checkbox"/> |
| <a href="#">IX.2308</a> | Introduction to Research | 5       | <input type="checkbox"/> |

Total number of credits chosen for the semester at ISEP

## PROJET/ PROJECT

Vous avez la possibilité de faire UN PROJET dans notre laboratoire - You can carry out a PROJECT in our research labs:

Oui / Yes

Non / No

Précisez la durée et la période souhaitée (exemple : 5 mois – entre le 15 janvier et le 10 juillet) :  
Please specify the expected duration and the appropriate period of the year (example: 5 months, from 09/2017 to 01/2018):

Précisez le nombre de crédits associés à ce projet :  
Please specify how many credits you need:

10 ECTS

15 ECTS

20 ECTS

25 ECTS

30 ECTS

Précisez le thème souhaité pour ce projet parmi les domaines suivants:  
Please indicate your topic of interest for this project in the following domains:

Artificial Intelligence / Resource Management in Multi-User Wireless Systems /  
Advanced Image Processing and Coding Methods / Energy Harvesting Systems / Electronic Systems.

## STAGE EN ENTREPRISE/ INTERNSHIP WITHIN INDUSTRY

Vous avez la possibilité de faire UN STAGE EN ENTREPRISE après un semestre académique à l'ISEP :  
You can carry out an INTERNSHIP within industry after passing an academic semester at ISEP:

Oui / Yes

Non / No

Durée / Duration (5 months min.):

Un stage validé apporte 30 crédits.  
An internship, if validated, provides 30 credits.