




MSC IN INFORMATION TECHNOLOGY "ICONE" PROGRAMME SOFTWARE ARCHITECT

IDENTITY CARD

- > Domain : Sciences, Technologies and Health
- > Full time course
- > [Continuing Education](#)
- > Degree apprenticeships
- > [Master of Engineering](#)
- > [120 ECTS credits](#)
- > 4 semesters
- > Course partly taught in English
- >  La Rochelle

REGISTRATION

<https://www.univ-larochelle.fr/formation/admission-inscription-et-scolarité/candidatures-et-inscriptions/candidater-universite-la-rochelle/>

CONTACT

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OBJECTIVES

> Presentation

“ Do you wish to acquire general computer skills while specializing in one of the fields offered by the Software or Data Architect course ?

At the end of these two courses of the IT MSc, you will be able to perfectly understand the organization of digital flows as well as the implementation of tools for exploiting the intangible heritage of a company or a community. In fact, you will be able to deal with data management and analysis issues, design information systems and also exploit and enhance digital content. As a future IT executive, you will also learn about the different support methodologies that can improve the functioning of an organization.



Jean Loup Guillaume

✓ ADMISSION

> Your profile

You have a bac+3, Bac+4 or equivalent (Bachelor's degree) : Bachelor's level knowledge in declarative and object programming, data structures, web languages, networks and protocols, client-server architecture and databases.

> How to apply ?

In the 1st year of the Master's degree, the selection of candidates is made on the basis of their application documents.

You wish to apply for a 1st year Master's degree [1st year of Master](#)

You wish to apply for a 2nd year Master's degree [2nd year of Master](#)

📄 PROGRAMME

● Mandatory ■ Course option

> Semester 1

> Bases de données avancées ●

● Bases de données avancées

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|----------------------------|--|
| Language used for teaching | French |
| Teaching time | 49h 30min (15h lectures - 15h tutorials - 15h practical work - 4h 30min work in accompaniment) |
| 5 ECTS credits | |
| Course code | 260-1-11 |

> Information systems ●

● Information systems

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|----------------------------|--|
| Language used for teaching | French |
| Teaching time | 57h (15h lectures - 33h practical work - 9h work in accompaniment) |
| 5 ECTS credits | |
| Course code | 260-1-31 |

> Ingénierie logicielle ●

● Ingénierie logicielle

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|----------------------------|--|
| Language used for teaching | French |
| Teaching time | 57h (15h lectures - 15h tutorials - 18h practical work - 9h work in accompaniment) |
| 5 ECTS credits | |
| Course code | 260-1-21 |

> Mineure - Acquisition et traitement des contenus ■

● Approches expérimentales

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|----------------------------|---|
| Language used for teaching | French |
| Teaching time | 40h 30min (9h lectures - 22h 30min practical work - 9h work in accompaniment) |
| 6 ECTS credits | |
| Course code | 260-1-81 |

> Mineure - Urbanisation des systèmes distribués ■

● Architecture de l'information

Language used for teaching
French

Teaching time
24h (12h lectures - 12h practical work)

3 ECTS credits

Course code
260-1-72

● Programmation concurrente et distribuée

Language used for teaching
French

Teaching time
42h (9h lectures - 6h tutorials - 18h practical work - 9h work in accompaniment)

3 ECTS credits

Course code
260-1-71

> Unités transversales ●

● Découverte de la recherche

Language used for teaching
French

Teaching time
45h (18h lectures - 3h tutorials - 9h practical work - 15h work in accompaniment)

3 ECTS credits

Course code
260-1-02

● LV1 Anglais

Language used for teaching
French

Teaching time
24h (24h tutorials)

2 ECTS credits

Course code
260-1-01

● Projet / mise en situation professionnelle

Language used for teaching
French

Teaching time
18h (6h lectures - 12h work in accompaniment)

3 ECTS credits

Course code
260-1-03

● Remédiation / personnalisation

Language used for teaching
French

Teaching time
15h (3h lectures - 12h work in accompaniment)

1 ECTS credit

Course code
260-1-04

> Semester 2

> Architectures orientées services ●

- Architectures orientées services

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| Language used for teaching |
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| French |
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| Teaching time |
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| 49h 30min (15h lectures - 15h tutorials - 15h practical work - 4h 30min work in accompaniment) |
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| 5 ECTS credits |
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| Course code |
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| 260-2-21 |
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> Réseaux et stockage sécurisés ●

- Réseaux et stockage sécurisés

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| Language used for teaching |
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| French |
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| Teaching time |
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| 57h (15h lectures - 9h tutorials - 27h practical work - 6h work in accompaniment) |
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| 5 ECTS credits |
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| Course code |
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| 260-2-11 |
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> Mineure - Acquisition et traitement des contenus ■

- Qualité des contenus et des traitements

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| Language used for teaching |
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| French |
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| Teaching time |
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| 36h (12h lectures - 6h tutorials - 18h practical work) |
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| 6 ECTS credits |
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| Course code |
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| 260-2-81 |
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> Mineure - Urbanisation des systèmes distribués ■

- Calculs et sécurité décentralisés

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| Language used for teaching |
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| French |
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| Teaching time |
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| 49h 30min (16h 30min lectures - 16h 30min practical work - 16h 30min work in accompaniment) |
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| 6 ECTS credits |
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| Course code |
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| 260-2-71 |
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> Unités transversales ●

- Etude bibliographique

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| Language used for teaching |
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| French |
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| Teaching time |
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| 30h (7h 30min lectures - 4h 30min tutorials - 3h practical work - 15h work in accompaniment) |
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| 2 ECTS credits |
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| Course code |
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| 260-2-02 |
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- LV1 Anglais

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| Language used for teaching |
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| French |
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| Teaching time |
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| 24h (24h tutorials) |
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| 2 ECTS credits |
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| Course code |
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| 260-2-01 |
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■ Missions en entreprise (APPRENTISSAGE)

Language used for teaching

French

10 ECTS credits

Course code

260-2-04

■ Stage (8 semaines) (INITIAL)

Language used for teaching

French

10 ECTS credits

Course code

260-2-03-STAG

> Semester 3

> Mise en œuvre des systèmes big data ●

● Mise en œuvre des systèmes big data

Language used for teaching

French

Teaching time

48h (15h lectures - 33h practical work)

5 ECTS credits

Course code

260-3-11

> Service web et mobilité ●

● Services web et mobilité

Language used for teaching

French

Teaching time

49h 30min (15h lectures - 15h tutorials - 19h 30min practical work)

5 ECTS credits

Course code

260-3-31

> Web sémantique ●

● Web sémantique

Language used for teaching

French

Teaching time

48h (15h lectures - 15h tutorials - 18h practical work)

5 ECTS credits

Course code

260-3-21

> Mineure - Acquisition et traitement des contenus ■

● Information retrieval and document understanding

Language used for teaching

French - English

Teaching time

27h (12h lectures - 15h practical work)

4 ECTS credits

Course code

260-3-81

- Project

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| Language used for teaching |
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| English - French |
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| Teaching time |
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| 19h 30min (1h 30min tutorials - 9h practical work - 9h work in accompaniment) |
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| 2 ECTS credits |
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| Course code |
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| 260-3-82 |
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> Mineure - Urbanisation des systèmes distribués ■

- Fouille de processus

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| Language used for teaching |
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| French |
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| Teaching time |
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| 49h 30min (15h lectures - 15h tutorials - 19h 30min practical work) |
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| 6 ECTS credits |
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| Course code |
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| 260-3-71 |
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> Unités transversales ●

- LV1 Anglais

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| Language used for teaching |
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| French |
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| Teaching time |
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| 24h (24h tutorials) |
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| 2 ECTS credits |
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| Course code |
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| 260-3-01 |
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- Projet / mise en situation professionnelle

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| Language used for teaching |
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| French |
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| Teaching time |
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| 30h (6h lectures - 24h work in accompaniment) |
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| 3 ECTS credits |
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| Course code |
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| 260-3-03 |
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- Projet scientifique

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| Language used for teaching |
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| French |
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| Teaching time |
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| 60h (9h lectures - 12h tutorials - 9h practical work - 30h work in accompaniment) |
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| 4 ECTS credits |
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| Course code |
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| 260-3-02 |
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> Semester 4

> Projet ●

- Projet

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| Language used for teaching |
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| French |
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| Teaching time |
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| 60h (12h lectures - 48h work in accompaniment) |
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| 6 ECTS credits |
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| Course code |
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| 260-4-11 |
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> **Professionalisation** ●

■ Missions en entreprise (APPRENTISSAGE)

Language used for teaching
French

24 ECTS credits

Course code
260-4-02

■ Stage (20 semaines) (INITIAL)

Language used for teaching
French

24 ECTS credits

Course code
260-4-01-STAG

> **Interaction with professionals**

Many professionals are involved in the MSc (about 15%) either directly in the courses or through seminars integrated into the courses.

> **International**

The ICONE IT MSc has multiple links with Vietnam. In particular, the second year can be done entirely in Hanoi, either in a francophone training (IFI) or an anglophone training (USTH).

AFTERWARDS

> **Further Education**

[PhD](#)

> **Professions**

- Information systems architect
- Information system application manager
- Software development engineer
- Business intelligence engineer
- IT system engineer

Information subject to change

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