

SPECIFICATION AND DEVELOPMENT OF SOFTWARE SYSTEMS 2016-2017

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| Bachelor Degree: | Software Engineering | 801G |
| Course title: | Specification and development of software systems | 830 |
| Year/Semester: | 2/Second Semester | ECTS Credits: 6 |

DEPARTMENT

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|----------------------------------|------------------|-----------|----------------|------------------------------|-------|
| Mathematics and Computer Science | | | | | |
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ENGLISH-FRIENDLY FACULTY

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CONTENTS

- UNIT1. Abstraction and formalisms in Programming.
- UNIT2. Specification and implementation of data types.
- UNIT 3. Abstract data types and object oriented programming.
- UNIT 4. Specification of algorithms.
- UNIT 5. Syntax and semantics of a simple imperative language.
- UNIT 6. Notions on efficiency. Formal verification of algorithm correctness.

REFERENCES

| Title |
|---|
| R. D. Tennent. "Specifying software". Cambridge University Press, 2002. |
| T. Budd. "An introduction to object-oriented programming ". Addison-Wesley, 2002. |
| http://www.oracle.com/technetwork/java/index.html |
| http://www.eclipse.org/ |
| http://krakatoa.lri.fr/ |

EVALUATION SYSTEM

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| 70% Final written exam |
| 30% Practical works and team projects |
| Knowledge on Programming techniques and Java programming language are necessary to follow the course |