# COURSE DESCRIPTION

| COURSE NAME | **SOFTWARE SECURITY** | CODE: MISS2103 |
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| STUDY YEAR | MASTER II | SEMESTER | 1 | COURSE STATUS (**C**-compulsory/**OP**-optional/**F**-facultative) | C |
|---|---|---|---|---|---|

| HOURS PER WEEK | | | | TOTAL HOURS PER SEMESTER | TOTAL HOURS INDIVIDUAL ACTIVITY | CREDITS | EVALUATION (**P**-during the semester, **C**-oral examination, **E**-written examination, **M**-mixed) | TEACHING LANGUAGE |
|---|---|---|---|---|---|---|---|---|
| C | S | L | Pr. | | | | | |
| 2 | - | 2 | - | 56 | 184 | 8 | M | English |

| COURSE TEACHER | TEACHING AND SCIENTIFIC DEGREE, FIRST NAME, LAST NAME | DEPARTMENT |
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| | PROF. DR. GHEORGHE GRIGORAS | Computer Science |

| PREVIOUS COURSES REQUESTED | No prerequisite required. |
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| OBJECTIVES | The course is an introduction in various programming-based methods for the development of security policies. Students will acquire experience with programming with various Java security-related packages and with access control modules in Linux. |
| GENERAL DESCRIPTION | The topics covered are:<br>1. Access control in Java<br>2. The Java Security and Cryptography extensions<br>3. SELinux, a Linux module for access control<br>4. Jif, a package for controlling information flow in Java programs<br>5. JAAS, the Java Authentication and Authorization System |
| DESCRIPTION OF SEMINARY / LABORATORY WORKS | Seminars and laboratories are grouped around the chapter currently discussed in the course. They aim to illustrate the topics of the chapter mainly by practical applications. |
| TEACHING METHODS | On-line and blackboard presentation. |

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| BIBLIOGRAPHY (SELECTION) | 1. Scott Oaks, Java Security, O'Reilly, ISBN 978-0596001575<br>2. Frank Meyer, David Kaplan, Karl McMillan, SELinux by Examples, Prentice Hall PTR, ISBN 978-0131963696<br>3. Tutorial pages for JAAS at http://java.sun.com/javase/6/docs/technotes/guides/security/jaas/JAASRefGuide.html<br>4. Tutorial pages for Jif at http://www.cs.cornell.edu/jif/ |

| EVALUATION | | |
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| | conditions | |
| | criteria | |
| | evaluation methods | 7 homeworks and a final exam. |
| | final result - formula | 50% from the homeworks and 50% from the final exam. |