

**Academic year 2020-2021**  
**Master studies in Distributed Systems**

**Year 1 (Series 2019-2021)**

**Semester 1**

MSD1101      **Advanced Software Engineering Techniques**      7.5 ECTS  
C: 2 S: 2      L:      Ex: E  
[Course description](#)      [Course webpage](#)

MSD1102      **Formal Methods in Software Engineering**      7.5 ECTS  
C: 2 S: 2      L:      Ex: EVP  
[Course description](#)      [Course webpage](#)

**Optional courses (2 out of 6)**      7.5 ECTS  
C: 2 S: 2      L:      Ex: E

MSD1103O1      *Web Application Development*  
[Course webpage](#)

MSD1103O2      *Digital Processing of Images*  
[Course description](#)

MSD1103O3      *Experimental Analysis of Algorithms*  
[Course description](#)      [Course webpage](#)

MSD1103O4      *Distributed Operating Systems*  
[Course description](#)

MSD1103O5      *Operating System Security and Malicious Systems*  
[Course description](#)

MSD1103O6      *Blockchain - foundations and applications*  
[Course description](#)

**Semester 2**

**Optional courses (4 out of 6)**      7.5 ECTS  
C: 2 S: 2      L:      Ex: E

MSD1205O1      *Models of Distributed Systems*  
[Course description](#)

MSD1205O2      *Concurrent and distributed programming*  
[Course description](#)

MSD1205O3      *Event-based Systems*  
[Course description](#)

MSD1205O4      *Distributed System Specification and Verification*  
[Course description](#)

- MSD120505 *Security Protocols. Modelling and Verification*  
[Course description](#)    [Course webpage](#)
- MSD120506 *Pragmatic Aspects in Engineering of Cloud Systems*  
[Course description](#)

## Year 2 (Series 2018-2020)

### Semester 1

- MSD2101    **Java Technologies**    7 ECTS  
 C: 2   S: 2    L:    Ex: E  
[Course description](#)

- Optional course (1 out of 3)**    7 ECTS  
 C: 2   S: 2    L:    Ex: E

- MSD210201 *Web Application Development*  
[Course webpage](#)

- MSD210202 *Digital Processing of Images*  
[Course description](#)

- MSD210203 *Experimental Analysis of Algorithms*  
[Course description](#)    [Course webpage](#)

- Optional course (1 out of 3)**    8 ECTS  
 C: 2   S: 2    L:    Ex: E

- MSD210301 *Distributed Operating Systems*  
[Course description](#)

- MSD210302 *Operating System Security and Malicious Systems*  
[Course description](#)

- MSD210303 *Blockchain - foundations and applications*  
[Course description](#)

- Optional course (1 out of 3)**    8 ECTS  
 C: 2   S: 2    L:    Ex: E

- MSD210401 *Operational Research*  
[Course description](#)    [Course webpage](#)

- MSD210402 *Special Chapters on Artificial Intelligence*  
[Course description](#)    [Course webpage](#)

- MSD210403 *Project Management*

### Semester 2

- MSD2205    **Ethics and academic integrity**    5 ECTS  
 C: 1   S: L:    Ex: EVP

MSD2206	<b>Professional/Research Practice</b> C: S: L: 6 Ex: EVP	12 ECTS
MSD2207	<b>Dissertation Preparing</b> C: S: L: 7 Ex: EVP	13 ECTS