## FINAL PROGRAM OF STUDY

## for the program

«Computer Science (1.5 academic years, 90 ECTS, Master, MSc)»

STRUCTURE OF THE PROGRAM OF STUDY

| PROGRAM REQUIREMENTS | ECTS |
| :--- | :---: |
| Compulsory courses | 4 |
| Elective courses <br> (a) Courses of specialization <br> (b) General Education courses / Free Electives | 56 |
| Postgraduate Diploma Thesis | $\mathbf{3 0}$ |
| Practical training | Total ECTS |
|  | $\mathbf{9 0}$ |

## COURSE DISTRIBUTION PER SEMESTER

| A/A | Course Type | Course Name | Course Code | Periods per week | Period duration | Number of weeks/ Academic semester | Total periods/ Academic semester | Number of ECTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st Semester |  |  |  |  |  |  |  |  |
| 1. | Elective Course | Elective course I | CS 6XX |  |  | 13 |  | 8 |
| 2. | Elective Course | Elective course II | CS 6XX |  |  | 13 |  | 8 |
| 3. | Elective Course | Elective course III | CS 6XX |  |  | 13 |  | 8 |
| 4. | Elective Course | Elective course IV | CS 6XX |  |  | 13 |  | 8 |
| 2nd Semester |  |  |  |  |  |  |  |  |
| 1. | Compulsory | Research Methodologies and Professional Practices in Computer Science | CS 670 | 3 | 3, 0, 0 | 13 | 39 | 4 |
| 2. | Elective Course | Elective course V | CS 6XX |  |  | 13 |  | 8 |
| 3. | Elective Course | Elective course VI | CS 6XX |  |  | 13 |  | 8 |
| 4. | Elective Course | Elective course VII | CS 6XX |  |  | 13 |  | 8 |
| 3rd Semester |  |  |  |  |  |  |  |  |
| 1. | Compulsory | Postgraduate Diploma Thesis | CS 700 |  |  | 13 |  | 30 |

The details of the offered courses (per semester) are shown in the following table:

| A/A | Course Type | Course Name | Course Code | Periods per week | Period duration ${ }^{1}$ | Number of weeks/ Academic semester | Total hours/ Academic semester | Number of ECTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FALL Semester |  |  |  |  |  |  |  |  |
| 1. | Elective | Distributed Systems | CS601 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 2. | Elective | Advanced Software Engineering | CS603 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 3. | Elective | Artificial Intelligence | CS604 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 4. | Elective | Advanced Computer Architecture | CS605 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 5. | Elective | Computer Networks and the Internet | CS606 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 6. | Elective | Visual Computing | CS607 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 7. | Elective | Programming for Games and Interactive Technologies | CS608 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 8. | Elective | Advanced Topics in Databases | CS646 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 9. | Elective | Computational Logic | CS663 | 4 | 3, 1, 0 | 13 | 52 | 8 |
| 10. | Elective | Temporal Information Systems in Medicine | CS678 | 4 | 3, 1, 0 | 13 | 52 | 8 |
| 11. | Elective | Electronic Health | CS679 | 4 | 3, 1, 0 | 13 | 52 | 8 |

[^0]| SPRING Semester |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Elective | Computer Games Software Technology | CS653 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 2. | Elective | Advanced Parallel Processing II | CS655 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 3. | Elective | Computer Graphics - Modelling and Realism | CS656 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 4. | Elective | Wireless Networks | CS657 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 5. | Elective | Digital Video Processing | CS658 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 6. | Elective | Design with Embedded Processors | CS659 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 7. | Elective | Information Retrieval and Search Engines | CS660 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 8. | Elective | Systems Analysis and Verification | CS664 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 9. | Elective | Constraint Solving Methods | CS665 | 4 | 3, 1, 0 | 13 | 52 | 8 |
| 10. | Elective | Neuroinformatics | CS667 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 11. | Elective | Mechanical Vision | CS668 | 5 | 3, 0, 2 | 13 | 65 | 8 |
| 12. | Compulsory | Research Methodologies and Professional Practices in Computer Science | CS670 | 3 | 3, 0, 0 | 13 | 39 | 4 |
| 13. | Elective | Algorithmic Game Theory | CS673 | 4 | 3, 1, 0 | 13 | 52 | 8 |
| 14. | Elective | System and Network Security | CS674 | 6 | 3, 1, 2 | 13 | 78 | 8 |
| 15. | Elective | Cognitive programming | CS680 | 4 | 3, 1, 0 | 13 | 52 | 8 |
| 16. | Elective | Advanced Topics in Software Reuse | CS681 | 6 | 3, 1, 2 | 13 | 78 | 8 |


| 17. | Elective | Advanced Security Topics | CS682 | 4 | $3,1,0$ | 13 | 52 |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 18. | Elective | Special Topics in Computer Science | CS699 | 3 | $3,0,0$ | 13 | 39 |


[^0]:    ${ }^{1}$ The type of periods of contact with the students are three: Lecture(s), Recitation, Laboratory. For consistency and full information disclosure, the duration (in hours) is given for all three types and zero time is indicated when one of the three types is not applicable.

