

Politehnica University Timisoara (Universitatea Politehnica Timisoara)
 Faculty of Automation and Computers (Facultatea de Automatica si Calculatoare)
 Domain: **Computers and Information Technology (Domeniul: Calculatoare si Tehnologia Informatiei)**

Title and Type of Master Programme Studies: **Information Technology, Development of Graduation Studies (Titlul si Tipul de Master: Tehnologia Informatiei, Aprofundarea in domeniul Studiilor de licenta)**

Type of education: **Day training (Forma de invatamant: Cu frecventa)**

Duration: **2 years (Durata studiilor: 2 ani)**

Domeniul fundamental de ierarhizare (DFI): **Stiinte ingineresti**
 Ramura de stiinta (RSI): **Ingineria sistemelor, calculatoare si tehnologia informatiei**
 Domeniul de ierarhizare (DII): **Ingineria sistemelor, calculatoare si tehnologia informatiei**
 Domeniul de studii universitare de masterat (DSU_M): **Calculatoare si tehnologia informatiei**

Cod DFI.Cod RSI.Cod DII.Cod DSU_M
 20.60.10.10

CURRICULA - MASTER INFORMATION TECHNOLOGY

| | | Anul I (2013/2014) | | | | | | Anul II (2013/2014) | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|-----------|--|----|--------------------|-------------------------------|--------------|--|--------------------------------------|----------|----|---------------------------------------|--------------------|--------------|---|--------|-----|----------|-----|----|--------------------|----|--------|-----|----|----------|-----------------|----|-----------------|----|----|--|
| | | SEMESTER I | | | SEMESTER II | | | SEMESTER III | | | SEMESTER IV | | | | | | | | | | | | | | | | | | | | |
| 1. | | Optional 1 (choose from 9L3 or 11L3) | | | Optional 1 (choose from 10L3) | | | Optional 1 (choose from 9L3 or 11L3) | | | Research activity and intership | | | | | | | | | | | | | | | | | | | | |
| | E | 9 | 28 | 0 | 28 | 0 | | 49 | E | 9 | 28 | 0 | 28 | 0 | | 49 | E | 9 | 28 | 0 | 28 | 0 | | 49 | 15 | | | | 98 | 70 | |
| 2. | | Optional 2 (choose from 9L3 or 11L3) | | | Optional 2 (choose from 10L3) | | | Optional 2 (choose from 9L3 or 11L3) | | | Master Thesis Development and Defense | | | | | | | | | | | | | | | | | | | | |
| | E | 9 | 28 | 0 | 28 | 0 | | 49 | E | 9 | 28 | 0 | 28 | 0 | | 49 | E | 9 | 28 | 0 | 28 | 0 | | 49 | 15 | | | | 98 | | |
| 3. | | Optional 3 (choose from 9L3 or 11L3) | | | Optional 3 (choose from 10L3) | | | Optional 3 (choose from 9L3 or 11L3) | | | | | | | | | | | | | | | | | | | | | | | |
| | E | 9 | 28 | 0 | 28 | 0 | | 49 | E | 9 | 28 | 0 | 28 | 0 | | 49 | E | 9 | 28 | 0 | 28 | 0 | | 49 | | | | | | | |
| 4. | | Research topics in information technology | | | Introduction to research | | | Directed thesis research | | | | | | | | | | | | | | | | | | | | | | | |
| | D | 3 | 28 | 0 | 0 | 0 | | 49 | D | 3 | 28 | 0 | 0 | 0 | | 49 | D | 3 | 0 | 28 | 0 | 0 | | 49 | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | | <i>9 optional disciplines must be chosen (see the attached document containing optional disciplines):</i> <i>- at least 3 Breadth Coverage (BC) disciplines; - at least 4 Advanced Electives (AE) disciplines; - remaining disciplines: BC or AE or from other Master's curricula</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| total / semester | hours: | 196 | | VPI | | 196 | | hours: | 196 | | VPI | | 196 | | hours: | 196 | | VPI | | 196 | | hours: | 196 | | VPI | | 70 | | | | |
| | credits: | 30 | | evaluations: 3E,1D | | 4 | | | credits: | 30 | | evaluations: 3E,1D | | 4 | | | credits: | 30 | | evaluations: 3E,1D | | 4 | | | credits: | 30 | | evaluations: 1P | | 1 | |
| total / week | hours: | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | of which: | 8 | 0 | 6 | 0 | (c, s, l, p) | | | 8 | 0 | 6 | 0 | (c, s, l, p) | | | 6 | 2 | 6 | 0 | (c, s, l, p) | | | 0 | 0 | 0 | 14 (c, s, l, p) | | | | | |

Optional courses

| | SEMESTER I | SEMESTER II | SEMESTER III | SEMESTER IV |
|----|--|---|--|-------------|
| 1. | Optional 9L3 - Distributed systems (*) E 9 28 0 28 0 BC | Optional 10L3 - Advanced databases (*) E 9 28 0 28 0 BC | Optional 11L3 - Advanced Digital Signal Processing(*) E 9 28 0 28 0 AE | |
| 2. | Optional 9L3 - Testing of computer systems(*) E 9 28 0 28 0 AE | Optional 10L3 - Development of complex distributed applications (*) E 9 28 0 28 0 AE | Optional 11L3 - Emergent and collective intelligence systems (*) E 9 28 0 28 0 BC | |
| 3. | Optional 9L3 - Data Transmission, Coding and Compression E 9 28 0 28 0 AE | Optional 10L3 - Information Technology Project Management E 9 28 0 28 0 BC | Optional 11L3 - Advanced Web Programming (*) E 9 28 0 28 0 BC | |
| 4. | Optional 9L3 - Smart sensors and sensor networks(*) E 9 28 0 28 0 AE | Optional 10L3 - Integrated information systems (*) E 9 28 0 28 0 AE | Optional 11L3 - Advanced Software Technologies E 9 28 0 28 0 AE | |
| 5. | Optional 9L3 - Component based software engineering (*) E 9 28 0 28 0 BC | Optional 10L3 - Real time system design(*) E 9 28 0 28 0 AE | | |
| 6. | | Optional 10 L3 - Cellular data networks (*) E 9 28 0 28 0 BC | | |
| 7. | | Optional 11L3 - Applied Mathematics - external course E 9 28 0 28 0 BC | | |
| 8. | | | | |

Legend

Table Structure

| Course name | | | | | | | |
|-------------|----|---|---|---|---|----|-----|
| FE | nc | c | s | I | p | CF | VPI |

FE may be: D, E
c - course
D - distributed evaluation
E - exam
FE - evaluation forms
CF - formativ category to which the
AE - Advances Elective
BC -Breadth Coverage

Ex.

| Research topics in information technology | | | | | | | |
|---|---|----|---|---|---|--|----|
| D | 3 | 28 | 0 | 0 | 0 | | 50 |

I - laboratory
nc - number of credits
p - projects
s - seminar
VPI - volum de ore necesar pregatirii individuale pentru un semestru de 14 sapt plus 4 sapt de sesiune
(*) - discipline optionale activate in anul universitar 2013/2014

RECTOR,
Prof.dr.ing. Viorel-Aurel SERBAN