**Course name:** Digital Circuit Engineering  
**Course code:** FCS-00056  
**Degree level and programme type:** Engineer's degree full-time programme  
**Specialization/ diploma path:** ---  
**Forms and number of hours of tuition:**  
<table>
<thead>
<tr>
<th>Forms</th>
<th>L</th>
<th>C</th>
<th>LC</th>
<th>P</th>
<th>SW</th>
<th>FW</th>
<th>S</th>
<th>No. of ECTS credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30</td>
<td>30</td>
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<td>2</td>
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**Entry requirements:**  
Obtained knowledge: Understanding the principles of operation of digital circuits of small and medium-scale integration. Obtained skills: design of simple digital circuits of small, medium and large scale integration.

**Course objectives:**  

**Specialist workshop:**  
1. Getting to know MultiSim and Max + Plus II software.  
2. Combinational circuits  
3. Testing of combinational circuits  
4. Iterative systems  
5. Synchronous systems  
6. Asynchronous systems  
7. Complex systems

**Course content:**  
Informative lecture, laboratory exercises, simulation,

**Assessment method:** Written exam, reports, short preparation tests

**Symbol of learning outcome**

<table>
<thead>
<tr>
<th>No. of hours</th>
<th>Calculation</th>
</tr>
</thead>
</table>
| L - lecture, C - classes, LC - laboratory classes, P - project, SW - specialization workshop, FW - field work, S - seminar | 1 - Attendance at lectures - 15 x 2h = 30  
2 - Attendance at specialistic workshop - 15 x 2h = 30  
3 - Preparation for specialistic workshop - 15  
4 - Participation in student-teacher sessions - 5  
5 - Preparation for exam - 20  
6 - Preparation of reports - 50  
TOTAL: 150 |

**Basic references**
