

### 2.3.3 Programming 2

<b>Programming 2</b>
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<b>Module Summary</b>
Module code: EEIB330
Module coordinator: Prof. Dr. Thorsten Leize
Credits (ECTS): 6 Points
Semester: 3. Semester
Pre-requisites with regard to content: Module „Programming 1“
Pre-requisites according to the examination regulations: Regarding to the examination regulations no pre-requisites are required
Competencies: The students are able to design and implement object oriented programs. They understand the object oriented way of thinking and get the differences of the various programming paradigms. They can also document the software using simple UML diagrams. They know how to use different data storage approaches and understand the differences between them.
Assessment: The module is assessed by a written exam of 90 minutes. Students have to pass furthermore the lab and project by submission and acceptance of exercises.
Usability: All electrical engineers need programming skills in their career. The modules Programming 1 & 2 are the base for this.

<b>Course: Object Oriented Programming</b>
Module code: EEIB331
Lecturer: Prof. Dr. Thorsten Leize
Scope of weekly semester hours (SWS): 2
Semester of delivery: Winter semester
Type/mode: Lecture with integrated exercise, Compulsory subject
Language of instruction: English
Content: <ul style="list-style-type: none"> <li>• The object oriented programming paradigm</li> <li>• classes, methods, inheritance, operator overloading, polymorphy, UML</li> <li>• Introduction to modern concepts of C++ from new standard versions 11,14 and 20.</li> </ul>
Recommended reading:

- See Ilias

<b>Course: OOP Lab</b>
Module code: EEIB332
Lecturer: Prof. Dr. Thorsten Leize
Scope of weekly semester hours (SWS): 2
Semester of delivery: Winter semester
Type/mode: Labor, Compulsory subject
Language of instruction: English
Content: <ul style="list-style-type: none"> <li>• Object oriented software, design and implementation</li> <li>• Exercises to EEIB331</li> </ul>
Recommended reading: <ul style="list-style-type: none"> <li>• See Ilias</li> </ul>

<b>Course: OOP Project</b>
Module code: EEIB333
Lecturer: Prof. Dr. Thorsten Leize
Scope of weekly semester hours (SWS): 2
Semester of delivery: Winter semester
Type/mode: Projekt, Compulsory subject
Language of instruction: English
Content: <ul style="list-style-type: none"> <li>• Small project to be done to the topics of EEIB331</li> </ul>
Recommended reading: <ul style="list-style-type: none"> <li>• See EEIB331 und 332</li> </ul>