# Faculty of Electrical Engineering, Automatics, Computer Science and Biomedical Engineering

Field of study: **Computer Science**  
Study level: **First-cycle studies**  
Form and type of study: **Full-time studies**  
Annual: **2019/2020**  
Lecture language: **English**

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</table>
# Study programme - Computer Science - 2019/2020

<table>
<thead>
<tr>
<th>Code</th>
<th>Module name</th>
<th>Lectures</th>
<th>Auditorium classes</th>
<th>Laboratory classes</th>
<th>Project classes</th>
<th>Conversation seminar</th>
<th>Seminar classes</th>
<th>Practical classes</th>
<th>Fieldwork classes</th>
<th>Workshops</th>
<th>Practic exercises</th>
<th>Lektorat</th>
<th>Zajęcia z wychowania fizycznego</th>
<th>ECTS</th>
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<tr>
<td>Suma ECTS</td>
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## Semester 4

### Engineering

<table>
<thead>
<tr>
<th>Code</th>
<th>Module name</th>
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<tbody>
<tr>
<td>ECSC-1-401-s</td>
<td>Computer networks</td>
<td>18</td>
<td>Yes</td>
</tr>
<tr>
<td>ECSC-1-402-s</td>
<td>Software engineering</td>
<td>5</td>
<td>Yes</td>
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<tr>
<td>ECSC-1-403-s</td>
<td>Databases II</td>
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<tr>
<td>ECSC-1-404-s</td>
<td>Software studio I</td>
<td>3</td>
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### Elective block: Computer Science Electives I

The rules for selecting groups/modules: A student chooses computer science related courses for 7 ECTS in total (from the UBPO / AGH UST International Courses or the current Faculty offer).

<table>
<thead>
<tr>
<th>Code</th>
<th>Module name</th>
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<tbody>
<tr>
<td>ECSC-1-409-s</td>
<td>AGH UST International Courses Elective Module sem 4</td>
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### Elective block: Foreign language III

<table>
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<tr>
<th>Code</th>
<th>Module name</th>
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<tbody>
<tr>
<td>ECSC-1-410-s</td>
<td>English B2 course – compulsory course of 135 hours for students of FIRST-CYCLE studies – semester 3/3 (STUDY PROGRAMME IN ENGLISH)</td>
<td>5</td>
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<tr>
<td>ECSC-1-411-s</td>
<td>French B2 course – compulsory course of 135 hours for students of FIRST-CYCLE studies – semester 3/3 (STUDY PROGRAMME IN ENGLISH)</td>
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<td>Yes</td>
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<tr>
<td>ECSC-1-412-s</td>
<td>German B2 course – compulsory course of 135 hours for students of FIRST-CYCLE studies – semester 3/3 (STUDY PROGRAMME IN ENGLISH)</td>
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<tr>
<td>ECSC-1-413-s</td>
<td>Spanish B2 course – compulsory course of 135 hours for students of FIRST-CYCLE studies – semester 3/3 (STUDY PROGRAMME IN ENGLISH)</td>
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### Suma ECTS

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## Semester 5

### Engineering

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<th>Code</th>
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<tbody>
<tr>
<td>ECSC-1-501-s</td>
<td>Formal Languages and Compilers</td>
<td>18</td>
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<tr>
<td>ECSC-1-502-s</td>
<td>Introduction to Artificial Intelligence</td>
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<td>ECSC-1-504-s</td>
<td>Software studio II</td>
<td>3</td>
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<tr>
<td>ECSC-1-506-s</td>
<td>Digital Electronics and Microprocessors</td>
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### Elective block: Computer Science Electives II

The rules for selecting groups/modules: A student chooses computer science related courses for 12 ECTS in total (from the UBPO / AGH UST International Courses or the current Faculty offer).

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<thead>
<tr>
<th>Code</th>
<th>Module name</th>
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<tr>
<td>ECSC-1-505-s</td>
<td>AGH UST International Courses Elective Module sem 5</td>
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### Suma ECTS

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## Semester 6

### Engineering

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<th>Code</th>
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<tr>
<td>ECSC-1-601-s</td>
<td>Cyber security</td>
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<td>ECSC-1-602-s</td>
<td>Web application technologies</td>
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<tr>
<td>ECSC-1-603-s</td>
<td>Embedded systems</td>
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<tr>
<td>Code</td>
<td>Module name</td>
<td>Lectures</td>
<td>Auditorium classes</td>
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<td>ECSC-1-605-s</td>
<td>Professional practice</td>
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<td><strong>Elective block: Computer Science Electives III</strong></td>
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<td>The rules for selecting groups/modules: A student chooses computer science</td>
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<td>related courses for 11 ECTS in total (from the UBPO / AGH UST International</td>
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<td>ECSC-1-604-s</td>
<td>AGH UST International Courses Elective Module sem 6</td>
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<td>ECSC-1-701-s</td>
<td>Thesis seminar</td>
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<td>ECSC-1-702-s</td>
<td>B.Sc. Thesis</td>
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<td><strong>Elective block: Computer Science Electives IV</strong></td>
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<td>The rules for selecting groups/modules: A student chooses computer science</td>
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<td>related courses for 14 ECTS in total (from the UBPO / AGH UST International</td>
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<tr>
<td>ECSC-1-703-s</td>
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<td><strong>Semester 0 - Completion of modules in any semester</strong></td>
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<td><strong>Currently available computer science electives (courses sample)</strong></td>
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<td>ECSC-1-001-s</td>
<td>Introduction to Geoinformatics</td>
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<td>ECSC-1-002-s</td>
<td>Basics of design in SolidWorks 3D CAD software</td>
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<td>ECSC-1-003-s</td>
<td>Fundamentals of optimization</td>
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<td>ECSC-1-004-s</td>
<td>Fundamentals of Data Science</td>
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<td>ECSC-1-005-s</td>
<td>Technology in society</td>
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<td>ECSC-1-006-s</td>
<td>Innovation for engineers: design thinking and business model generation</td>
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<td>ECSC-1-007-s</td>
<td>Distributed control systems</td>
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<td>ECSC-1-008-s</td>
<td>Optical fibers - technology and applications</td>
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<td>Understanding GDPR - Ensuring personal data protection in the light of EU</td>
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<td>Impact of cybersecurity on international security</td>
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<td>ECSC-1-011-s</td>
<td>EU cybersecurity framework</td>
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<td>ECSC-1-012-s</td>
<td>Network society &amp; technology</td>
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<td>PYTHON in engineering calculations</td>
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<td>ECSC-1-014-s</td>
<td>Python Language</td>
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Łączna liczba godzin zajęć

3808