**Course name**: Advanced Human-Computer Interaction and Application Usability

**Course code**: FCS-00082

**Form and number of hours of tuition**

<table>
<thead>
<tr>
<th>L</th>
<th>C</th>
<th>LC</th>
<th>P</th>
<th>SW</th>
<th>FW</th>
<th>S</th>
<th>Semester</th>
<th>No. of ECTS credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

**Entry requirements**: Human-Computer Interaction (FCS-00038), Software Development Tools (FCS-00071), Object Oriented Programming (FCS-00012).

**Course objectives**: To familiarise the student with advanced techniques and systems of human-computer communication.

**Course content**

**Lectures**:
1. Speech-to-text systems.
2. VoiceXML
3. Virtual Reality
4. Augmented Reality
5. UX techniques related to colour
6. Advanced input controllers.

**Classes**:
1. Implement system that is controlled by speech.
2. Implement simple VR test project.
3. Test various input controllers.

**Teaching methods**: lecture, problem, programming.

**Assessment method**: Lecture - oral exam
Laboratory - exercise reports

**Student workload** (in hours)

<table>
<thead>
<tr>
<th>No. of hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance at lectures</td>
</tr>
<tr>
<td>Attendance at laboratories</td>
</tr>
<tr>
<td>Preparation for laboratories</td>
</tr>
<tr>
<td>Homeworks</td>
</tr>
<tr>
<td>Participation in student-teacher sessions</td>
</tr>
<tr>
<td>Preparation of reports</td>
</tr>
<tr>
<td>Preparation for the exam</td>
</tr>
<tr>
<td><strong>TOTAL</strong>:</td>
</tr>
</tbody>
</table>

**Basic references**

**Supplementary references**

**Organisational unit conducting the course**: Department of Digital Media and Computer Graphics

**Author of the programme**: dr inż. Marcin Skoczylas

**Date of issuing the programme**: Feb. 11, 2022
L - lecture, C - classes, LC - laboratory classes, P - project, SW - specialization workshop, FW - field work, S - seminar