<table>
<tr><td>Course code</td><td></td></tr>
<tr><td>Type and description</td><td>Elective Course in Physics</td></tr>
<tr><td>ECTS credit</td><td>1</td></tr>
<tr><td>Course name</td><td>Field Theory 2</td></tr>
<tr><td>Course name in Polish</td><td>Teoria pola 2</td></tr>
<tr><td>Language of instruction</td><td>English</td></tr>
<tr><td>Course level</td><td>8 PRK</td></tr>
<tr><td>Course coordinator</td><td>dr inż. Michał Dobrski</td></tr>
<tr><td>Course instructors</td><td>dr inż. Michał Dobrski, prof. dr hab. Maciej Przanowski, dr hab. inż. Adam Chudecki,</td></tr>
<tr><td>Delivery methods and course duration</td><td>
<table>
<tr><th></th><th>Lecture</th><th>Tutorials</th><th>Laboratory</th><th>Project</th><th>Seminar</th><th>Other</th><th>Total of teaching hours during semester</th></tr>
<tr><td>Contact hours</td><td></td><td></td><td></td><td>15</td><td></td><td></td><td>15</td></tr>
<tr><td>E-learning</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td></td></tr>
<tr><td>Assessment criteria (weightage)</td><td></td><td></td><td></td><td>100%</td><td></td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Course objective</td><td>To present the role and basic methods of general relativity.</td></tr>
<tr><td>Learning outcomes</td><td>Student understands the basic geometric framework of general relativity and knows how to verify if a given metric satisfies Einstein field equations.
(W4, U4, K1)</td></tr>
<tr><td>Assessment methods</td><td>Final presentation on related subject</td></tr>
<tr><td>Prerequisites</td><td>Basic knowledge of calculus, algebra, variational methods and special relativity.</td></tr>
<tr><td>Course content with delivery methods</td><td>1) Review of geometric framework of special relativity
2) Basic concepts of differential geometry
3) Einstein field equations
4) Schwarzschild solution
5) Newtonian limit of general relativity</td></tr>
<tr><td>Basic reference materials</td><td>B. Schutz A first course in general relativity CUP, 2009
N.M.J. Woodhouse General relativity Springer, 2007</td></tr>
</table>

Other reference materials	L. D. Landau, E.M. Lifshitz *The classical theory of fields* Butterworth-Heinemann, 1987
Average student workload outside classroom	10 h
Comments	
Last update	