COURSE DESCRIPTION

1. Course title: Mining geology
2. Course code: S I – GGiP/44
4. Level of studies: 1st cycle of higher education
5. Mode of studies: intramural studies
6. Field of study: Mining and Geology (RG7)
7. Profile of studies: general academic
8. Programme: Mining and exploration geology
9. Semester: 7
10. Faculty teaching the course: Institute of Applied Geology
11. Course instructor: Marek Marcisz DSc, Eng.
12. Course classification: speciality course
13. Course status: compulsory
14. Language of instruction: English
15. Pre-requisite qualifications: General mining, General geology, Hydrogeology and water hazard, Mineral deposit geology, Deposit exploration methods
16. Course objectives: The aim of the course is to prepare students to work in the geological section of coal mine. The course acquaints students with the character of a mine geologist work and methods, devices, materials etc., which he uses in dependence to kind and geological-mining conditions of a deposit.

17. Description of learning outcomes:

<table>
<thead>
<tr>
<th>Nr</th>
<th>Learning outcomes description</th>
<th>Method of assessment</th>
<th>Teaching methods</th>
<th>Learning outcomes reference code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Student has got an elementary knowledge allowing to apply the computer aid in solving engineering tasks</td>
<td>the current verification of the progresses in the work with computer programmes, written study of the achieved results</td>
<td>class</td>
<td>K_W09 +++</td>
</tr>
<tr>
<td>2</td>
<td>Student is well-informed in the present state and development trends in the chosen speciality from the field of mining and geology</td>
<td>examination</td>
<td>lecture</td>
<td>K_W10 +++</td>
</tr>
<tr>
<td>3</td>
<td>Student has got a detailed knowledge in the methods of recognizing and documenting the geological structure, exploration of the deposits, estimation of resources and mineral quality</td>
<td>the written study of charting results of the underground heading, the opinion about the project</td>
<td>lecture, laboratory, project</td>
<td>K_W19 +++</td>
</tr>
<tr>
<td>4</td>
<td>Student is able to use methods and mathematical models and to use practically well-chosen computer programmes to solving engineering tasks</td>
<td>the current verification of the progresses in the work with computer programmes, written study of the achieved results</td>
<td>class</td>
<td>K_U07 +++</td>
</tr>
<tr>
<td>5</td>
<td>Student manages to formulate and solve simple engineering tasks with analytic methods and computer simulations apply</td>
<td>the current verification of the progresses in the work with computer programmes, written study of the achieved results</td>
<td>class, laboratory, project</td>
<td>K_U10 +++</td>
</tr>
<tr>
<td>6</td>
<td>Student is able to interpret the geological setting on the basis of maps and geological sections</td>
<td>the written study of charting results of the underground heading, the opinion about the project</td>
<td>laboratory, project</td>
<td>K_U11 +++</td>
</tr>
</tbody>
</table>
7. Student has got consciousness of validity and understanding of non-technical aspects and the effects of the engineering activity, influence on the environment, and connected with this responsibility for undertaken decisions  
8. Student correct identifies and decides dilemmas connected with the executed profession

18. Teaching modes and hours
Lecture / BA / MA Seminar / Class / Project / Laboratory
Sem. 7 - 75 h.

19. Syllabus description:
Semester 7:
Lecture:

Class:
Geostatistics methods in documentation of deposits. The variability description and the parameter estimation with the use of GeoEAS and Surfer software.

Laboratory:

Project:
Tectonic characteristics of a hard coal deposit on the base of a mining map fragment (scale 1:5000). Preparation of a chapter of a geological documentation of a deposit on tectonics with the following figures: rose diagrams, contours diagrams, linear and surface density of faults.

Seminar:

20. Examination: semester 7

21. Primary sources:

22. Secondary sources:

23. Total workload required to achieve learning outcomes
<table>
<thead>
<tr>
<th>Lp.</th>
<th>Teaching mode :</th>
<th>Contact hours / Student workload hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lecture</td>
<td>30/15</td>
</tr>
<tr>
<td>2</td>
<td>Classes</td>
<td>15/10</td>
</tr>
<tr>
<td>3</td>
<td>Laboratory</td>
<td>15/10</td>
</tr>
<tr>
<td>4</td>
<td>Project</td>
<td>15/10</td>
</tr>
<tr>
<td>5</td>
<td>BA / MA Seminar</td>
<td>0/0</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>0/0</td>
</tr>
<tr>
<td></td>
<td>Total number of hours</td>
<td>75/45</td>
</tr>
</tbody>
</table>

24. Total hours: 120
25. Number of ECTS credits: 4
26. Number of ECTS credits allocated for contact hours: 2
27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects): 1
28. Comments: -

Approved:

…………………………….   …………………………………………………
(date, Instructor's signature)

…………………………….   …………………………………………………
(date , the Director of the Faculty Unit signature)