

|                                   |   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
|-----------------------------------|---|--------------------|---------------------|------------|---|-----------|-----|-----------|---|-----------|-----|-----------|---|----------|---|
| <b>Title of Course</b>            | <b>Energy Certification of Buildings</b>  |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>Semester</b>                   | Autumn/Spring   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>Teaching Hours per Course:</b> | <b>Total</b>  | <b>- Lectures:</b> | <b>- Tutorials:</b> |            |   |           |     |           |   |           |     |           |   |          |   |
|                                   | 15  | 15                 | -                   |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>ECTS Credits</b>               | 1   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>The content of education</b>   |   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>Aims of Course</b>             | The course aims at training on energy analysis of buildings.  |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>Program</b>                    | Basic definitions in energy analysis. Energy carriers and their functions in buildings. A construction object in the energy system, environmental impact and the possibilities of its quantification. Energy performance of building objects. Legal regulations in the field of energy certification of facilities. Requirements for energy performance certificates for buildings. Principles for determining primary energy consumption in facilities based on the consumption of various direct energy carriers. Energy performance certificates and the method of their preparation for residential, public and service buildings. The practice of making energy performance certificates for objects and their examples for various buildings in Poland. The role of energy certification of facilities reducing energy consumption. |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>Conditions of completion</b>   | <p>The final grade depends on the following assessment criteria:</p> <p>- Theoretical test weight: 100 %</p> <p><b>Grading Standard: Grade</b></p> <table style="margin-left: 40px;"> <tr> <td>91% - 100%</td> <td>5</td> </tr> <tr> <td>81% - 90%</td> <td>4,5</td> </tr> <tr> <td>71% - 80%</td> <td>4</td> </tr> <tr> <td>61% - 70%</td> <td>3,5</td> </tr> <tr> <td>51% - 60%</td> <td>3</td> </tr> <tr> <td>0% - 50%</td> <td>2</td> </tr> </table>  |                    |                     | 91% - 100% | 5 | 81% - 90% | 4,5 | 71% - 80% | 4 | 61% - 70% | 3,5 | 51% - 60% | 3 | 0% - 50% | 2 |
| 91% - 100%                        | 5   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| 81% - 90%                         | 4,5   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| 71% - 80%                         | 4   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| 61% - 70%                         | 3,5   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| 51% - 60%                         | 3   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| 0% - 50%                          | 2   |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |
| <b>Teacher</b>                    | Andrzej Dziągiewski, Ph.D.  |                    |                     |            |   |           |     |           |   |           |     |           |   |          |   |