

| <b>Basic data of the subject</b>  |  |                  |              |
|---|--|------------------|--------------|
| <b>Academic Unit:</b>   | <b>Faculty of Architecture, Design and Wood Technology</b>   |                  |              |
| <b>Program:</b>   | <b>Green Architecture and Interior Design</b>  |                  |              |
| <b>Subject title:</b>   | <b>Integrated Planning and BIM</b>   |                  |              |
| <b>Study level:</b>   | <b>Master</b>  |                  |              |
| <b>Subject status:</b>  | <b>Mandatory</b>   |                  |              |
| <b>Years of study:</b>  | <b>II</b>  |                  |              |
| <b>Number of hours per week:</b>  | <b>3</b>   |                  |              |
| <b>Value of credits - ECTS:</b>   | <b>5</b>   |                  |              |
| <b>Lecturer of the subject:</b>   | <b>MSc. Faton Spahiu</b>   |                  |              |
| <b>Contact details:</b>   | <b>faton.spahiu@ushaf.net</b>  |                  |              |
| <b>Subject description:</b>   |  |                  |              |
|   | In this subject students will be familiar with the design basics of Building Information Management/Modeling (BIM) practices using Autodesk Revit software. Focuses on knowledge of the environment in BIM including integrates structures multi - disciplinary data to produce a digital representation of an asset across its lifecycle, from planning and design to constructions and operations. |                  |              |
| <b>Purpose of subject:</b>  |  |                  |              |
|   | The aim of the course is to become familiar with the concepts and benefits of Construction Information Modeling.   |                  |              |
| <b>Expected learning outcomes:</b>  |  |                  |              |
|   | After completion of this module, students will be able to: <ul style="list-style-type: none"> <li>• Understand the fundamental concepts of Autodesk Revit Architecture.</li> <li>• Use the Parametric 3D design tools to start designing projects</li> <li>• Use the automated tools for project documentation</li> <li>• Understand benefits of integral planning</li> </ul>                        |                  |              |
| <b>Contribution to student workload<br/>(which should correspond to the students learning outcomes)</b> |  |                  |              |
| <b>Activity</b>   | <b>Hours</b>   | <b>Days/week</b> | <b>Total</b> |
| Lectures  | 2  | 15               | 30           |
| Theoretical / laboratory exercises  | 2  | 15               | 30           |
| Practical work  | 1  | 5                | 5            |

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| Contacts to the Lecturer / Consultations           | 2   | 2  | 4          |
| Field exercises                                    | 2   | 4  | 8          |
| Tests, student seminars                            |   |    |            |
| Home work  | 1   | 12 | 12         |
| Time of self-study (in the library or home)        | 2   | 15 | 30         |
| Final preparation for the exam                     |   |    |            |
| Time spent in assessment (tests, quiz, final exam) | 2   | 1  | 2          |
| Projects, presentations, etc.                      |   |    |            |
| <b>Total</b>                                       |   |    | <b>125</b> |
| <b>Teaching methodology:</b>                       | Lectures, individual assignment, seminar papers for every week, discussions, team work.         |    |            |
| <b>Assessment methods:</b>                         | 50% Practical work<br>50% Final Exam  |    |            |
| <b>Literature</b>                                  |   |    |            |
| <b>Basic literature:</b>                           | 1. Autodesk Revit Architecture 2022 - August 16, 2021 by Ascent- Center for Technical Knowledge |    |            |
| <b>Additional literature:</b>                      | 2. Mastering Autodesk Revit December, 2019 by author Robert Yori, Marcus Kim and Lance Kirby    |    |            |
| <b>Designed plan of teaching:</b>                  |   |    |            |
| <b>Weeks</b>                                       | <b>Lecture to be held</b>   |    |            |
| <b>Week 1:</b>                                     | Introduction to BIM and Autodesk Revit  |    |            |
| <b>Week 2:</b>                                     | Basic Drawing and Modify Tools  |    |            |
| <b>Week 3:</b>                                     | Setting up Levels and Grids   |    |            |
| <b>Week 4:</b>                                     | Modeling Walls  |    |            |
| <b>Week 5:</b>                                     | Working with Doors and Windows  |    |            |
| <b>Week 6:</b>                                     | Working with Curtain Walls  |    |            |
| <b>Week 7:</b>                                     | Working with Views  |    |            |
| <b>Week 8:</b>                                     | Adding Components   |    |            |
| <b>Week 9:</b>                                     | Modeling Floors   |    |            |
| <b>Week 10:</b>                                    | Modeling Ceilings and Roofs   |    |            |
| <b>Week 11:</b>                                    | Modeling Stairs, Railings and Ramps   |    |            |
| <b>Week 12:</b>                                    | Annotating Construction Documents   |    |            |
| <b>Week 13:</b>                                    | Creating Revit Families   |    |            |

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| <b>Week 14:</b>   | Basics of HVAC, Plumbing and Electricity |
| <b>Week 15:</b>   | Visualization                            |
| <b>Academic Policies and Rules of Conduct:</b>  |  |
| Obligatory regular attendance, keeping calm and active engagement in dialogue during lectures and exercises is mandatory. |  |