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**Syllabus**

**BSc Architecture and Spatial Planning**

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| **Subject** | **Fundamentals of seismic engineering** |
| **Type** | **Semester** | **ECTS** | **Code** |
| ELECTIONLY (E) | 4 | 2 | 30-BES-304 |
| **Lecturer** | Dr.Sc. Shemsi Mustafa |
| **Assistant** |  |
|  |  |
|  **Aims and objectives** | The purpose of the course is to equip students with the necessary basic knowledge in the Basics of Seismic Engineering for the level of the first cycle of scientific disciplines from earthquake engineering and to deal with all the steps of the design process in the seismic aspect. The level of seismic design is adjusted for the level of students in the current semester. The pedagogical objectives are:- knowledge and skills in Engineering Seismology - soil reactions to seismic forces;- knowledge and ability in earthquake engineering - reactions of structures to seismic forces;- knowledge and ability in seismic risk, methods and models for calculating seismic risk;- knowledge and ability in the seismic aspect, the importance of structural simplicity, uniformity,symmetry and static indeterminacy, resistance and stiffness in both directions, resistance and torsional stiffness;- Knowledge and skill in the basic requirements and criteria of anti-seismic design in seismic areas.The content of the subject is the various architectural aspects of the design of structures with their seismic and dynamic aspects.The main focus of this course is to prepare architects for the safest possible design of buildings, taking into consideration the ongoing seismic risk. |
| **Results of achievement** |  Upon completion of the course, the student should be able to:- Seismicity assessment and know the causes of the spread of earthquakes;- examination and analysis of the physical parameters of the earthquake;- Appropriate measures in the first phases of the project in terms of seismicity;- The results from the analyzes of the seismic parameters on the architectural requirements for the understanding of the problem, construction method, structural simplicity, uniformity and symmetry.  |