Subject code: *UG-010*	**Subject name:** *Introduction to geodesy*		
Study cycle: *I*	**Year:** *I*	**Semester:** *I*	**ECTS credits:** *3*
Status: *Optional*		**Contact hours: 45** *Lectures: 30* *Exercises: 15*	
Assigned professors and assistants:			
Prerequisits:	*/*		
Subject objectives:	*Enabling students to know the units of measurement and basics of measurement theory and the use of coordinate systems, for distinguishing basic geodetic parameters and methods measurements, for the interpretation of geodetic bases and bases, and for distinguishing the basis of geodetic land surveying and calculation surface and earth masses (cubature).*		
Teaching units:	*1. Introductory lectures, course objectives;* *2. Historical overview of the development of geodesy;* *3. Definitions and division of geodesy;* *4. Presentation of the earth's surface (geodetic bases);* *5. Scale - system and units of measure, geodetic measurements;* *6. Horizontal measurements;* *7. Earth projections;* *8. First test;* *9. Geodetic coordinate systems;* *10. Basic geodetic networks and points - geodetic bases;* *11. Vertical measurements;* *12. Measuring instruments, Calculation of surfaces and earthworks mass;* *13. Geometric leveling;* *14. Introduction to geoinformation systems;* *15. The future of the geodetic profession and new methods used in geodesy;*		
Learning outcomes:	**Knowledge:** • *A student defines the tasks of geodesy and the organization and structure in Bosnia and Herzegovina and the world;* • *A student defines basic concepts in geodesy;* • *A student lists the basic units of measurement and the*		

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<tr><td></td><td>basics of measurement theory;
Skills:
• A student applies coordinate systems;
• A student distinguishes basic geodetic parameters and methods of measurement;
Competencies:
• Independently conducts instrumental measurements;
• Independently measures surface and earth mass;</td></tr>
<tr><td>Teaching methods:</td><td>Multimedia presentation and conversation (lecture); research independent work of students through the development of tasks and joint analysis (exercises).</td></tr>
<tr><td>Knowledge testing methods with grading structure[1]:</td><td>
<table>
<tr><td></td><td>Points</td></tr>
<tr><td>Attendance</td><td>5</td></tr>
<tr><td>Participation on lectures</td><td>5</td></tr>
<tr><td>Test</td><td>40</td></tr>
<tr><td>Seminar paper</td><td>10</td></tr>
<tr><td>Final exam</td><td>40</td></tr>
<tr><td>TOTAL</td><td>100</td></tr>
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Assessment:
<table>
<tr><td>Grade</td><td>ECTS grade</td><td>Points scale</td></tr>
<tr><td>10</td><td>(A) excellent</td><td>95 - 100</td></tr>
<tr><td>9</td><td>(B) very good</td><td>85 - 94</td></tr>
<tr><td>8</td><td>(C) good</td><td>75 - 84</td></tr>
<tr><td>7</td><td>(D) satisfactory</td><td>66 - 74</td></tr>
<tr><td>6</td><td>(E) sufficient</td><td>55 - 64</td></tr>
<tr><td>5</td><td>(F, FX) insufficient</td><td>55</td></tr>
</table>
</td></tr>
<tr><td>Literature[2]:</td><td>Mandatory:
1. Božić, B., 2006: Tehnike geodetskih mjerenja I., Građevinski fakultet, Univerzitet u Beogradu, Beograd.
2. Vračarić, K., Mihajlović, K., 1981: Geodezija 1., Naučna knjiga, Beograd</td></tr>
</table>

[1] The structure of points and point criteria for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught in accordance with Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

[2] The Senate of the higher education institution as an institution or a council of the organizational unit of the higher education institution as a public institution determines mandatory and recommended textbooks and manuals, as well as other recommended literature on the basis of which exams are prepared by a special act which is required to be published on its website before the beginning of the academic year in accordance with Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton.

	3. *Benčić D., Solarić N., 2005.: Mjerni instrumenti i sustavi u geodeziji i geoinformatici, Školska knjiga Zagreb* 4. *Mihailović, K., 1974: Geodezija I. Građevinska knjiga, Beograd.* **Recommended:** 1. *Pribičević, B., Medak, D., 2003: Geodezija u 1. građevinarstvu, Zagreb* 2. *Macarol, S.,1985: Praktična geodezija, Tehnička knjiga, Zagreb.*