| **1. Course title:** Introduction to Geology | | | | |
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| **2. Code:** | | **3. Type (lecture, seminar, laboratory):** lecture | | |
| **4. Total of contact hours:** 26 hours | | **5. Number of credits (ECTS):** 3 | | |
| **6. Pre-requisites (max. 3):** none | | | | |
| **7. Announced:** ☒ autumn semester, ☐ spring semester, ☐ both semesters | | | | |
| **8. Limit for participants:** no | | | | |
| **10. Instructor-in-charge (faculty, institute and department):**  János KOVÁCS, PhD (FS, Institute of Geography, Department of Geology and Meteorology) | | | | |
| **11. Instructor(s) and percentage:** | | János KOVÁCS | | 85% |
| Krisztina SEBE | | 15% |
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| **12. Language:** English | | | | |
| **13. Course objectives and learning outcomes:**  The subject matter examined in the course covers the basics of geology and the objectives of the course are to provide students with a general understanding of this discipline. The course will focus on the chemistry and properties of minerals, the composition of igneous, sedimentary and metamorphic rocks and some of the earth processes responsible for rock and mineral formation.   * Students will be better able how to observe and think about landscapes and other aspects of Earth; * Students will better understand the relevance of geology to their local geologic setting and the larger societal issues, like resources; * Students will understand main geologic concepts and demonstrate an ability to apply geologic concepts; * Students will become more informed citizens and leave class with an interest in learning more. | | | | |
| **14. Course outline / Milestones**   1. The Earth: interior, structure, geospheres, lithosphere, minerals, rocks, definitions 2. Plate tectonics: Wilson-cycle, tectonics and igneous processes 3. Mineralogy: crystallography, physical and chemical properties, systematics 4. Igneous processes: magma, volcanic processes, igneous rocks 5. Weathering: physical, chemical, soils, sedimentary processes, clastic sedimentary rocks 6. Carbonate sedimentary processes and sedimentary rocks 7. Sedimentary ore formations, chemical sediments, organic sedimentary rocks 8. Metamorphism and metamorphic rocks, deformations, plate tectonics 9. Paleontology and stratigraphy 10. Geologic time, earth history 11. Structural geology: deformation, strain, stress field, mountain building 12. Geologic mapping 13. Basics of geophysics | | | | |
| **15. Mid-semester works**  Week 4 Midterm exam  Week 9 Midterm exam  Week 13 Midterm exam  Week 12 Submission of homework | | | | |
| **16. Summative assessment, formative assessment**  Evaluation is based on midterm exams and homework points.  Grading is based upon:  Midterm exams: 75% (each 25%)  Homework: 25%  Grading scale:  just less than 50% = 1  50 to 64.99% = 2  65 to 74.99% = 3  75 to 84.99% = 4  85+% = 5  Attendance at all activities will be monitored. Students who fail to attend the activities, or to complete the summative or formative assessment specified above, will not gain the credit for the course. | | | | |
| **17. Reading assignments:**   1. Earle, S. (2015) *Physical geology* (e-book) <https://opentextbc.ca/geology/> | | | | |
| **18. Recommended texts:**  Teaching materials and course documentation will be posted on the Neptune MeetStreet website | | | | |
| **Date** | 13 November, 2017 | **Prepared** |  | |
| János KOVÁCS PhD  instructor-in-charge | |
| **Endorsed** | | |  | |
| András TRÓCSÁNYI PhD leader of the program | |