


Materials Science, GEMTT0001M-a (2+1 e)

MSc Mechanical Engineer, course at the Faculty of Mechanical Engineering and Informatics,
Requirements of subject, II. semester of the 2015/2016. period

- **Number of lectures and practical lessons per week: 2l+1p**
(i.e. number of the lectures. 2hours × 14 weeks, number of practical lessons: 1hour ×14 weeks)
- **Requirements: signature +exam**
- **Requirements:**
 - **For getting a signature**
 - Participation in the 60% of lectures and 100% of practical lessons
 - Working out a project work (15 minutes ppt presentation) during the semester,
 - Successful fulfilment of two written tests and the project work
 - At least satisfactory level (40%) of the average of the two tests
 - At least satisfactory level of the project work
 - In case of failed tests the successful fulfilment of additional tests
 - **Signature cannot be given if**
 - the student does not participate in more than 60% of lectures and 100% of practical lessons
 - the student does not participate in the tests and additional tests (if necessary)
 - the student does not prepare the project work at least satisfactory level.
- **Number, duration , evaluation and supplementation of the written tests:**
 - **Two tests have to be fulfilled.**
 - **Test I on the 8th. and Test II. on the 13th week,**
 - **Duration of the tests: 60 min/occasion**
 - **Evaluation: 100-100 summa scores, percentage evaluation of the performance and marking by1-5 as follows: 0-19%=1; 40-52%=2; 53-66%=3;67-79%= 4;80-100%= 5:**
 - **Additional test: on the week 14th** In case of failed tests (i.e. less than 80 points from the sum of the two tests) student must write the additional test to get a signature
- **Supplementation of the missed lectures and practical lessons**
 - there is no possibility to supplement the missed lectures
 - each of the missed practical lessons can be fulfilled by one occasion (per topic) at a prescribed later time comparing to the due time of the given practical according to the original time schedule
- **Examination requirements**
 - Type of exam: written+oral (both is compulsory!)
 - Oral examination can be performed if results of the written examination test exceeds the level of 40%
- **Suggested literature:**
 1. Tisza M.: Physical Metallurgy, ASM International Publisher, Ohio Park, USA, 2001.
 2. Tisza M.: Introduction to Materials sciences, Miskolc University Publisher, Miskolc, 2003. pp. 1-402.
 3. Shackelford, J. F.: Introduction to Materials Science for Engineers. 5th ed. Prentice Hall Inc., 2000. ISBN 0-13-011287-9
 4. Ashby, M.F, Jones, D.R.H.:Engineering Materials 1-An introduction to Microstructures, Processing and Design 3rd ed., Elsevier Butterwoth-heinemann, Oxford, 2006. ISBN 0 7506 63804
 5. Ashby, M.F, Jones, D.R.H.:Engineering Materials 2-An introduction to properties, Applications and Design3rd ed., Elsevier Butterwoth-heinemann, Oxford, 2006. ISBN-13: 978-0-7506-6381-6

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