**Structures2**

***Credits:*** 4

***Weekly Hours:*** 1 lecture, 2 practices, 0 lab.

***Language of Instructions:*** English

***Grading:*** Exam

***Semester:*** 2nd

***Prerequisites:*** Advanced Structural Analysis

***Lecturer:*** Tamás JUHÁSZ

Office: 7624 Hungary, Pécs, Boszorkány út. 2. Office No B-312

E-mail: juhasztam@mik.pte.hu

***Brief Syllabus:***

This course is aimed to provide basic and advanced knowledge on the principles of the surface structures, forms, loads, displacements and stress fields. Topics covered by the course include:special problems of model creation, homogenization, anisotropy nonlinearity, the difference between a bended plate and plate in plane stress, general solutions, plates with large displacements, reinforced concrete slabs, 3D plate systems, shell structures, membrane forces, boundaries, boundary problems, bending theory of shell structures, stability problems.

***Recommended Readings:***

**1.** M. Lal Gambhir, “Stability Analysis and Design of Structures,” Springer, 1st edition 2004. ,

ISBN 978-3-662-09996-4

**2.** Z. Bazant and L. Cedolin, “Stability of Structures,” Oxford University Press, Inc., 1991, ISBN-13:

978-0-471-98716-1, ISBN: 0-471-98716-6

**3.** Luis A. Godoy, “Theory of Elastic Stability: Analysis and Sensitivity,” Taylor & Francis Group, 2000.

**4.** W. Xie, “Dynamic Stability of Structures,” Cambridge University Press, 2006., ISBN-13: 978-

1560328575 ISBN-10: 1560328576

***Attendance:***

Attending is required all classes. In case of unexcused absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note.

***Evaluation + Grading***

**Numeric Grade and evaluation in points**

*excellent* ***(5)*** *88%-100%*

*good* ***(4)*** *76%-87%*

*satisfactory* ***(3)*** *63%-75%*

*sufficient* ***(2)*** *51%-62%*

*fail* ***(1)*** *0-50%*

***PTE Grading Policy:***

Information on PTE’s grading policy can be found at the following location:

Tamás JUHÁSZ