The University of Texas at Arlington

**MAE 2312 – Solid Mechanics**

Course Information - Spring, 2016

Text: **Mechanics of Materials** by J.M. Gere and B.J. Goodno, 8th Ed.

**1. Instructor:** Dr. Andrey Beyle

**2. Office:** Room 214C, Woolf Hall, Phone: 817/272-3746

**3. Office Hours:**  MW 10 – 11A after class, or by appointment.

4. **Description of Course Content:** This course covers the relationships between stresses

and strains in elastic bodies under the tension, compression, shear, bending, torsion, and

combined loadings. It also covers the deflections and elastic curves, shear and bending

moment diagrams in beams, as well as column buckling theory.

**Student Learning Outcomes:** The course is

intended to provide students with a clear and thorough presentation of both the theory and

application of the fundamental principles of mechanics of materials for structural design.

Students will develop an understanding of the meaning of stress and strain, and the

relation between them. They will learn how to analyze the distribution of internal loads,

deformation, stresses and strains in structural elements (e.g. bars, beams) due to

application of external loading. They will also learn the basic concepts and analysis

techniques of structural stability emphasizing the buckling of columns.

**5. Time and Place of Class Meetings:** NH 111, Nedderman Hall

**MWF 9:00 am - 9:50 am**

**6. Course Prerequisites:** MAE 1312 with grade of C or better.

**7. Attendance Policy:** Students are strongly encouraged to attend each class.

**8. Drop Policy:** Students may drop or swap (adding and dropping a class concurrently)

classes through self-service in MyMav from the beginning of the registration period

through the late registration period. After the late registration period, students must see

their academic advisor to drop a class or withdraw. Undeclared students must see an

advisor in the University Advising Center. Drops can continue through a point two-thirds

of the way through the term or session. It is the student's responsibility to officially

withdraw if they do not plan to attend after registering. **Students will not be**

**automatically dropped for non-attendance**. Repayment of certain types of financial aid

administered through the University may be required as the result of dropping classes or

withdrawing. Contact the Financial Aid Office for more information.

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as

being committed to both the spirit and letter of all federal equal opportunity legislation,

including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are

required by law to provide "reasonable accommodations" to students with disabilities, so

as not to discriminate on the basis of that disability. Any student requiring an

accommodation for this course must provide the instructor with official documentation in

the form of a letter certified by the staff in the Office for Students with Disabilities,

University Hall 102. Only those students who have officially documented a need for an

accommodation will have their request honored. Information regarding diagnostic criteria

and policies for obtaining disability-based academic accommodations can be found at

www.uta.edu/disability or by calling the Office for Students with Disabilities at (817)

272-3364.

**Scholastic Dishonesty:** All students are expected to pursue their academic careers with

honesty and integrity. Scholastic dishonesty includes, but is not limited to, cheating on a

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test or other course work, plagiarism (offering the work of another as one’s own) and

unauthorized collaboration with another person. In alignment with this the University has

adopted the Academic Honor Code which is incorporated into all coursework.

**UT Arlington Honor Code:** *I pledge, on my honor, to uphold UT Arlington’s tradition*

*of academic integrity, a tradition that values hard work and honest effort in the pursuit of*

*academic excellence. I promise that I will submit only work that I personally create or*

*contribute to group collaborations, and I will appropriately reference any work from*

*other sources. I will follow the highest standards of integrity and uphold the spirit of the*

*Honor Code.*

In accordance with the Rules and Regulations of the Board of Regents of The University

of Texas System (Rule 50101), institutional procedures regarding allegations of

scholastic dishonesty are outlined in Part Two, Chapter 2, of the UT Arlington Handbook

of Operating Procedures. Students found responsible for dishonesty in their academic

pursuits are subject to penalties that may range from disciplinary probation to suspension

or expulsion from the University.

Any student who registers to attend classes at UT Arlington and is ineligible to attend for

disciplinary reasons will be dropped automatically from the rolls of the University. This

information may be obtained by accessing the Office of Student Conduct web site at

http://www.uta.edu/conduct/.

**Student Support Services Available**: The University of Texas at Arlington provides a

variety of resources and programs designed to help students develop academic skills, deal

with personal situations, and better understand concepts and information related to their

courses. These resources include tutoring, major-based learning centers, developmental

education, advising and mentoring, personal counseling, and federally funded programs.

For individualized referrals to resources for any reason, students may contact the

Maverick Resource Hotline at 817-272-6107 or visit www.uta.edu/resources for more

information.

**Electronic Communication Policy:** The University of Texas at Arlington has adopted

the University “MavMail” address as the sole official means of communication with

students. MavMail is used to remind students of important deadlines, advertise events and

activities, and permit the University to conduct official transactions exclusively by

electronic means. For example, important information concerning registration, financial

aid, payment of bills, and graduation are now sent to students through the MavMail

system. All students are assigned a MavMail account. ***Students are responsible for***

***checking their MavMail regularly.*** Information about activating and using MavMail is

available at http://www.uta.edu/oit/email/. There is no additional charge to students for

using this account, and it remains active even after they graduate from UT Arlington.