|  |
| --- |
| **1. Course title/number, number of credit hours** |
| EGM 4523C – Intermediate Strength of Materials |  # of credit hours 3 |
| **2. Course prerequisites, corequisites, and where the course fits in the program of study** |
| Prerequisites:1. EGN 3331 – Strength of Materials  |
| **3. Course logistics** |
| *Term*: Fall 2018This is a classroom lecture course  |
| **4. Instructor contact information** |
| *Instructor’s name**Office address**Office Hours* *Contact telephone number**Email address* | Dr. George CaiEngineering West (EG-36)GC: (561)297-3478caig@fau.edu |
| **5. TA contact information** |
| *TA’s name**Office address**Office Hours* *Contact telephone number**Email address* |  N/A |
| **6. Course description** |
| Course Description:An extension of the theories and applications of the principles of mechanics of materials taught in EGN 3331 Strength of Materials, including determining the deflection of beams by deferent methods, solving statically indeterminate problems, studying the phenomenon of stress concentration in practical situations, and applying static failure theories in design. |
| **7. Course objectives/student learning outcomes/program outcomes** |
| *Course objectives* | The course will foster engineering and mathematical skills applied to structural problems.  |
| *Student learning outcomes**& relationship to ABET a-k objectives* | Student Learning Outcomes: (letters in parentheses indicate correlation of the outcome with the appropriate program assessment outcomes a-k)1. The students will be able to formulate and analyze problems, and synthesize and develop solutions based on fundamental principles. (a,c,e,k)
2. The students will design basic mechanical components or processes to meet desired specifications using appropriate engineering tools and techniques. (a,c,e,k)
 |
| **8. Course evaluation method** |
| Course Evaluation Method:HW - 10 %Exam – 20%Presentations – 20%Preliminary Project Proposal reports – 20%Final project Proposal reports – 30% | *Note*: The minimum grade required to pass the course is C. |
| **9. Course grading scale** |
| Grading Scale: A 92.5-100 C+ 77.5-80 D- 60-62.5A- 90-92.5 C 72.5-77.5 F <60 B+ 87.5-90 C- 70-72.5B 82.5-87.5 D+ 67.5-70B- 80-82.5 D 62.5-67.5 |
| **10. Policy on makeup tests, late work, and incompletes** |
|  |
| **11. Special course requirements** |
| N/A |
| **12. Classroom etiquette policy** |
| University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions. |
| **13. Disability policy statement** |
| "In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU’s campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses." |
| **14. Honor code policy** |
| Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. See University Regulation 4.001 at [www.fau.edu/regulations/chapter4/4.001\_Code\_of\_Academic\_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf)* No cell-phones, i-pads, or other electronic devices are allowed during any of the exams or quizzes.
* No watches capable of taking pictures or communicating with others are allowed during exams.
* If, because of an emergency, there is a need to carry an electronic device to the exam, you must secure permission from the instructor.

Violation of any of the above exam rules will, at a minimum, result in receiving a zero on the exam. |
| **15. Required texts/reading** |
| Textbook:  |
| **16. Supplementary/recommended readings** |
|  |
| **17. Course topical outline, including dates for exams/quizzes, papers, completion of reading** |
| Course Topics:* Determining the deflection of beams by deferent methods;
* Solving statically indeterminate problems;
* The phenomenon of stress concentration in practical situations;
* Applying static failure theories in design;
* Exploring the bucking instability of column structures;
* The use of energy methods to deal with problems;
* The concept of plasticity.
 |