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| **1. Course title/number, number of credit hours** |
| EML 4263C – Fabrication of Mechanical Engineering  Systems |  # of credit hours 3 |
| **2. Course prerequisites, corequisites, and where the course fits in the program of study** |
| Prerequisites:1. EGN3365 Engineering Materials

Corequisite: EML 4521C  |
| **3. Course logistics** |
| *Term*: Fall 2018This is a classroom lecture and laboratory course  |
| **4. Instructor contact information** |
| *Instructor’s name**Office address**Office Hours* *Contact telephone number**Email address* | Dr. Oren MasoryEngineering West (EG-36)GC: (561)297-3478masoryo@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 introductory course directed at acquainting mechanical engineering students with the basic machinery and machining processes used to fabricate parts of mechanical engineering systems. |
| **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)
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| **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** |
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| **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** |
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| "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." |

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| **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** |
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| **17. Course topical outline, including dates for exams/quizzes, papers, completion of reading** |
| Course Topics:* Reading production drawings;
* Understanding of dimensions and tolerances;
* Review of manufacturing processes, their application, performance and cost;
* Machine shop processes (turning, milling drilling, welding, and others)
* Fundamental of CNC machine tools and their programming;
* Laboratory/machine shop activities- 2D CNC programming using G codes;
* Testing of welding and fasteners, selection of tools and machining parameters.
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