

Course Title: DMEI 4307 Precision Manufacturing for Defense Systems

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Course Description:

This course is developed to understand the design and process issues associated with precision manufacturing for defense systems. In this course, the students will gain knowledge of basic and precision manufacturing. This course will cover topics such as requirements for machine design for precision manufacturing, precision machining processes, fundamentals of metrology and the techniques of measurement, sensors applications for precision manufacturing, process planning, applications and challenges, and finally, the future of precision manufacturing. This course is designed for a typical one semester course aimed at senior level undergraduate and graduate level engineering students.

Topics covered:

- Introduction to precision manufacturing
- Machine design for precision manufacturing
- Precision machining processes
- Principles of measurement
- Errors, error mapping and error budgets
- Error due to compliance and vibration
- Sensors for precision manufacturing
- Process planning for precision manufacturing
- Precision manufacturing applications and challenges
- Future of precision manufacturing



For more information about this course, Contact:

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For more information about the I-DREAM4D Education Program, Contact:

Dr. Douglas Timmer at Douglas.timmer@utrgv.edu

For Internship opportunity, visit:

<https://idream4d.org/interns/>

To be offered in
Spring 2021!

Upon accomplishing this course, students will be prepared for potential interns and jobs at companies



Course offered by faculty members at:

