General Course Data

Course Catalog: MAE 586/ 496
Number: MAE 586/ 496
Course Title: Under Graduate Research
Credit-hours: 3
Purpose: Make undergraduate students familiar with the research activities in Advanced Materials and solid Mechanic areas
Instructor: Dr. Afsaneh Rabiei, Office: BR 2417, Tel: 513-2674, Email: arabiei@eos.ncsu.edu, Office hour: TU&TH 1-2

Course Objectives

1. To be able to analyze the materials properties and correlate those to the mechanical behavior of the material
2. To be able to distinguish between different classes of advanced materials including the metal foams, thin films, coatings, biomaterials, nano-materials and shape memory alloys and their applications

Course Requirements

Attending the weekly meetings with the research team (each Friday from 1:00 to 3:00 PM)
Working in the lab with the graduate research partner at least three hours a week
Submitting one midterm paper of 10 pages including 6 pages of research background and literature survey and 4 pages of report on the progress of the work
Submitting a final report of at least 15 pages and including maximum 5 pages of background and 10 pages of research progress report!

Evaluation/Grading

Attending the weekly meetings: (15%)
Actively participating in the research activities: (35%)
Midterm paper: (20%)
Final Paper: (30% Bonus)

Instructor, resolve to:

* Treat all students as a stakeholder in their own success and that of the class
* Respect cultural diversity, mixed abilities and other differences at all times
* Convey adequate and timely information to the students about evaluation of their work
* Support each student in a process of continual improvement that supports his or her achievement
* Team up each undergraduate student with a graduate student to work closely on individual research topics

Instructor expect you as a student to resolve to:

* Take pride and ownership in the lab and display a desire to learn
* Take responsibility for your own learning
* Respect cultural diversity, mixed abilities and other differences at all times
* Be a team player
* Conduct yourself as a professional, exhibiting: honesty, punctuality, and courtesy to your colleagues.

Final Grading Chart

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