



MATE 100
***“Materials for
Emerging Technologies”***

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Dept. of Materials Science and Engineering

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Project Selection

■ Hands-On Design Projects:

- Either “*Composites for a Buck*”

or

“*How and Why Did It Break?*”

- Individual 2-3 page written report for both + a Team Poster for “How and Why Did It Break?”

■ Written Report/Paper (see the **RED** page in your course notes for formatting instructions):

- “*Materials for XXX*” or “*Failing Materials ;-)*”
- ~12-15 page written report in each case

Useful Links for Information

■ Hagerty Library:

- Jay Bhatt, Information Services Librarian (Eng.)
- Office: Room 121, inside Suite 127:
 - *E-mail:* bhattjj@drexel.edu
 - *Tel.:* 215-895-1873
 - *Fax:* 215-895-2070

■ The MATE 100 subject guide is online at:

<http://www.library.drexel.edu/resources/guides/MatE100ResourceGuide.html>

MATE 100: Wrap-Up #1

■ MATE 100 Project/Advisor Assignments:

- List is posted outside the MSE Dept. Office, 3rd Floor, LeBow
- List also posted on the MSE Dept. web page:
www.materials.drexel.edu/2day
- Please review these lists to find out your MATE 100 Advisor's name etc.
- If your name and/or E-mail address is listed incorrectly, please E-mail any corrections to Mrs. Trachtman

MATE 100: Wrap-Up #2

■ “Composites for a Buck”:

- Kits of materials (wires, wood, fibers etc.), Epoxy adhesive, popsicle sticks, latex gloves, etc. will be distributed as follows:
 - *Friday, 9/21/07, 2:00-5:30 pm in the Dept. of Materials Science & Engineering lab. conf room, 3rd Floor LeBow, Rm. 336*
 - *If you have other orientations etc. at that time then please see Mrs. Trachtman early next week*

■ How and Why Did It Break?

- Contact Prof. Antonios Zavaliangos for details
- E-mail: azavalia@coe.drexel.edu

MATE 100: Wrap-Up #3

■ Deadlines/Important Dates:

- “*Composites for a Buck*” Testing...Bossone 3rd Floor Atrium, Friday, October 12th, 2:30-5:30 pm
- “*Composites for a Buck*” 2-3 page ***individual*** reports due Friday, October 19th, 4:00 pm, MSE Dept. Office, 3rd Floor, LeBow
- “*How and Why Did It Break?*” 2-3 page ***individual Reports & Team Posters*** due Friday, October 19th, 4:00 pm, MSE Dept. Office, 3rd Floor, LeBow
- 12-15 page “Written Report/Papers” due Friday, October 19th
 - *E-mail your reports to your MATE 100 Advisor by 5:00 pm*
 - *Check the MSE web page for Advisor’s E-mail addresses*

Majoring in Materials Science and Engineering?

■ If you have enjoyed this 2-day course and wish to major in Materials Science and Engineering, how do you do that?

- *See Judy Trachtman or Dorilona Rose today or in the MSE main office (LeBow 344 and 335A) to pick up a “Change of Major” form*
- *Pick up a form online at:*
[http://www.drexel.edu/SRC/forms/Change of Curriculum and Status.pdf](http://www.drexel.edu/SRC/forms/Change%20of%20Curriculum%20and%20Status.pdf)
and then stop by to see your Academic Advisor (CoE Student Services in University Crossings) for signatures

Hands-On Undergraduate Research Opportunities

■ I am interested in getting hands-on experience working in a lab. Can I do this in the Materials department as a freshman?

- *Yes! We do our best to pair freshman Materials majors with faculty research groups to get REAL hands-on experience in the lab*
- *This is a great experience for students who want to try out research or who are thinking about doing a B.S./M.S.*
- *You can use your work study position to work in a lab and get paid*
- *Or work in a lab for credit: MATE 495*

Freshman Research 2007-08 (MATE 495)

■ Overview:

- Early undergraduate experience in research is increasingly important for all engineering students --> foundation for future careers in academia or industry
- Opportunity to gain hands-on expertise in basic and advanced research techniques prior to your 1st Co-op --> involved in leading-edge research and to develop skills extending beyond the classroom
- Special Topics sequence of 2 courses, offered in Winter and Spring terms, which, together with this *MATE 100* 2-day course, represent 6 credits of materials science and engineering related technical electives in your Freshman Year

■ Key Features:

- Freshman-year participation in current materials-related research programs
- Hands-on experience working as a member of an established MSE Dept. research group
- Improved preparation for your first Co-op
- Opportunities to publish and present a technical paper in a Journal or at a Conference

Freshman Research 2007-08 (MATE 495)

■ Course Requirements:

- Min. 5 hrs/week working on defined/agreed research project in the lab
- Participation in regular lab. research group meetings; meeting with Faculty Advisor
- Maintenance of a detailed laboratory notebook
- Writing and submission of a term paper summarizing each term's research activities. Papers will be graded (letter grade) by the Faculty Advisor
- Presentation of a poster summarizing your research experiences and accomplishments at the end of the course sequence
- Submission of an abstract, approved by the MSE Faculty Advisor, for a materials-related conference, and if accepted, writing and presentation of the resulting technical paper

Freshman Research 2007-08 (MATE 495)

■ Registration:

- Students should select and submit to Dorilona Rose their top 3 choices of MSE faculty they would like to work with
- Follow <www.materials.drexel.edu/2day> for details of faculty interest areas and contact information
- An MSE faculty member must formally agree to serve as your Advisor
- Preference will be given to freshmen declaring Materials Science and Engineering as their major, freshmen taking a minor in Materials Science and Engineering, and dual majors with Materials Science and Engineering as one of their designated programs
- No GPA requirement, however, enrollment requires permission from the MSE Dept.

■ And Last But Not Least:

- The MSE Dept. will cover the cost of travel, hotel and registration (up to a combined total of \$1,000) for students whose abstracts/papers are accepted for presentation at a materials-related conference