

BMA 502 - Basic Aspects of Biomaterials Testing (3.0 credit hours)

*Course Outline: 31 August- 21 December**

**last day of exam period; all assignments must be complete by this date*

Schedule: approx. six hours of combined instruction and practice per week;
individual schedules to be determined

Location: 308 Squire Hall (South Campus); other locations also may be used

Objective: To familiarize you with three laboratory techniques relevant to biomaterials evaluation and to your thesis research; relevant to your research interests, if you have not yet selected a thesis research topic.

Format: Direct Instruction in Laboratory Setting, in addition to tutorial sessions, reading, and writing assignments. Technical assistance will be available if you experience difficulties. A written laboratory report is required for each technique assigned.

You will be assigned three laboratory techniques, such as infrared spectroscopy, ultraviolet/visible spectroscopy, ellipsometry, contact angle analysis, surface tension measurement, contact potential measurement, adhesive strength tests, friction and wear tests, surface texture measurement, sterilization test methods, or others particularly relevant to your research interests.

Grading: Graded on A-to-D or Satisfactory/Unsatisfactory basis, depending on your program requirements.

Evaluation: Your grade will be based on the following 4 main items:

- (1) Theoretical Foundation (periodic oral quizzes) - 20% of course grade
- (2) Experimental Demonstration (acquired laboratory skill) - 20% of course grade
- (3) Technique/Data Reports* - 40% of course grade
*use of methods as applied to assigned analytical task
- (4) Attendance/productivity - 20% of course grade

Each of these items will be graded on an A-to-D basis.
[A: 90% or better; B: 80 – 89%; C: 70 – 79%; D: less than 70%]

The overall course grade then will be calculated and a grade assigned using the letter grade (with plus/minus indications) or using satisfactory (C or better) and unsatisfactory (less than C) options.

Other Requirements: Reading assignments may be given before or during each of the laboratory rotations.

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