Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
• Submit original form and attachments •

1. This request is submitted by the Department of BMEN

2. Course prefix, number and complete title of course: BMEN 620 Bio-Optical Imaging

3. Change requested
   a. Prerequisite(s): From: BMEN 601 and MATH 308 To: MATH 308
   b. Withdrawal (reason):
   c. Cross-list with:
      Cross-listed courses require the signature of both department heads.
   d. Change in course title and description. Enter complete current course title and current course description in item 4; enter proposed course title and proposed course description in item 5.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 6. Attach a course syllabus.

4. Complete current course title and current course description:

5. Complete proposed course title and proposed course description (not to exceed 50 words):

6. a. As currently in course inventory:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMEN</td>
<td>620</td>
<td>BIO-OPTICAL IMAGING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>FICE Code</th>
</tr>
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<tbody>
<tr>
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<td>0 3 1 4 0 3 0 1 0 0 6 0 4 5 0</td>
<td>0 0 3 6 3 2</td>
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   b. Change to:

<table>
<thead>
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<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
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   Approval recommended by:
   
   Head of Department
   Date

   Chair, College Review Committee
   Date

   Dean of College
   Date

   Head of Department (if cross-listed course) Date

   Submitted to Coordinating Board by:

   Associate Director, Curricular Services

   Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 10/08
To Whom It May Concern:

BMEN 620 Bio-Optical Imaging- Change in course prerequisites.

BMEN 601 (currently listed as a prerequisite) is no longer offered.
Course: BMEN 620

Title: Bio-Optical Imaging

Class Times: T Th 2:20-3:35 PM in Zach 105A

Description: Optical imaging techniques for detection of structures and functions of biological tissues; basic physics and engineering of each imaging technique.

Prerequisites: MATH 308

Instructor: Kristen Maitland, 335G Zachry  
Phone: 845-1864, e-mail: kmaitland@tamu.edu  
Office hours: T Th 3:45-4:30, and by appointment

Reference Texts:  
* Optics, Eugene Hecht  
* Introduction to Biophotonics, Paras Prasad  
* Principles of Fluorescence Spectroscopy, Joseph Lakowicz  
* Handbook of Biological Confocal Microscopy, James Pawley  
* Biomedical Optics, Lihong Wang and Hsin-I Wu  
* Optical Microscopy Primer [http://imicro.magnet.fsu.edu](http://imicro.magnet.fsu.edu)

Topics:

- Optics refresher
- Light tissue interactions
- Light microscopy
- Multispectral fluorescence imaging
- Lifetime based imaging
- Confocal microscopy
- Non-linear optical microscopy
- Optical coherence tomography
- Photoacoustic tomography
- Photothermal tomography
- Diffuse optical tomography
- Contrast agents
- Student presentation topics

Grading:

- Homework 20% 100-90%........A
- Research Paper/Presentation 20% 80-89%...........B  
- Midterm (10/14) 20% 70-79%............C
- Final Exam (12/10, 1-3PM) 40% 65-69%.........D
- 100% <65%.........F

- No late homework accepted.
- Only University excused absences will be accepted for makeup exams to be given. In accordance with University policies which can be found online at [http://student-rules.tamu.edu/rule7.htm](http://student-rules.tamu.edu/rule7.htm).
- It is the student’s responsibility to make arrangements to reschedule exams. Exams must be completed in accordance with University policies which can be found online at [http://student-rules.tamu.edu/rule7.htm](http://student-rules.tamu.edu/rule7.htm).

**Americans with Disabilities Act:** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu).

**Academic Integrity: Aggie Code of Honor:** "Aggies do not lie, cheat, or steal, nor do they tolerate those who do." [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor)