Northwestern University
McCormick School of Engineering and Applied Science
Medical Engineering Area of Specialization Form

To be used by students following the Catalog year 2005 degree requirements.

All Medical Engineering majors must complete this form by the end of their junior year of study. If you change your specialization, a new form must be submitted. Please check the specialization you expect to follow. If you are not taking all of the courses listed under the specialization, please list the original course or courses to be taken and the course you wish to substitute on the lines below.

Name ___________________________________________________________ Student ID________________ Year of Study________ Today's Date ___________

I. BASIC ENGINEERING: Please list the Basic Engineering Courses you are using for your degree:

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<th>SUBJECT AND COURSE #</th>
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<tbody>
<tr>
<td>ECE 203</td>
<td>ECE 205</td>
<td>Bmd_Eng 320; 325</td>
<td>ECE 346/347; 361/362</td>
<td>391/392</td>
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II. CORE COURSES FOR SPECIALIZATION (IF APPLICABLE):

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<tr>
<td>ECE 221</td>
<td>ECE 202 or Bmd_Eng 221; ECE 203</td>
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<tr>
<td>Bmd_Eng 320 or ECE 222</td>
<td>Two of Bmd_Eng 321:338; 383</td>
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III. SPECIALIZATION COURSES: Check one and circle the courses you intend to use toward your Specialization

**Computer Applications**
Under Basic Engineering: ECE 203
Specialization Courses: ECE 205; 303; Bmd_Eng 320; 325
Take one of the following pairs of classes
ECE 346/347; 361/362; 391/392

**Electronic Instrumentation**
Under Basic Engineering: ECE 202 or Bmd_Eng 221; ECE 203
Specialization Courses: ECE 221; 223; 225
One of the following: Bmd_Eng 320 or ECE 222
Two of Bmd_Eng 321:338; 383

**Biomechanics and Rehabilitation**
Bmd_Eng 250 or Chem 342-1; Bmd_Eng 271
Specialization Courses: Bmd_Eng 270; 346; 366; 371
Two of Bmd_Eng 321; 344; 365; 372*; 377; Civ_Eng 327; Mech_Eng 315; 362; 389; 390; 391 (*not offered in 2005-2006)

**Biomedical Signals and Images**
Specialization Courses: Bmd_Eng 320; 325; 321
Four of Bmd_Eng 321; 322; 323*; 333; 325; 327; 338*; 383; 384*; 495; ECE 328

**Transport Processes & Tissue Engineering**
Under Basic Engineering: Bmd_Eng 250 or Chem 342-1; Bmd_Eng 270 or Chem_Eng 321 or Mech_Eng 241
Under Core: Take Bmd_Eng 302 and 303
Specialization Courses: Bmd_Eng 346; 350; 271* (may pet to use BME 371)
One of Bmd_Eng 377 or Chem_Eng 371*

**Biomedical Materials and Biotechnology**
Under Basic Engineering: Bmd_Eng 250 or Chem 342-1; Bmd_Eng 270; Mat_Sci 201
Specialization Courses: Bmd_Eng 314; 317; 343; 350
Bmd_Eng 344 or Mat_Sci 331
One of Bmd_Eng 310; 315; 333; 346; Biol_Sci 301; 315; 390 or Chem_Eng 371

**Biological Materials and Biotechnology**
Specialization Courses: Bmd_Eng 320; 325; 321
Four of Bmd_Eng 321; 322; 323*; 333; 325; 327; 338*; 383; 384*; 495; ECE 328

**General (list all 6 courses) A different set of courses may be developed by student and advisor, and must be submitted to and approved by the BME Undergraduate Committee.**

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***PETITION SECTION***

FOR SEVEN MAJOR SPECIALIZATION COURSES ONLY
IT IS NOT NECESSARY TO FILE A CURRICULUM PETITION IN ADDITION TO THIS FORM

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<tr>
<th>REQUIREMENT</th>
<th>REQUESTED SUBSTITUTION</th>
<th>QTR/YR</th>
<th>REASON:</th>
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<tr>
<td>SUBJECT AND COURSE #</td>
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**Do Not use this form to petition Basic Engineering Requirements, use yellow Curriculum Petition instead**

Student’s Signature ___________________________ Date ___________
Adviser’s Name _______________________________ Date ___________
Program Chair’s Signature ______________________ Date ___________

Students should obtain the signature of the advisor and program chair and return the signed form to Undergraduate Engineering Academic Services L269, Tech.

10/6/2010