Courses to be considered at the meeting of December 1, 2011

1. **Chemistry 524**: Chemical Instrumentation  
   *Type of proposal: Change in prereq*  
   *Current:* Prereq > Chem 343 & cr or con reg in Chem 561 or cons inst  
   *Proposed:* Prereq > Chem 343, Chem 327 or 329, Phys 208 or equiv; or cons inst

2. **Chemistry 561**: Physical Chemistry  
   *Type of proposal: Change in prereq*  
   *Current:* Prereq > Chem 110, 221, or 223; Math 222; Physics 201 or 207. Not for credit for those who have taken Chem 565  
   *Proposed:* Prereq > Chem 327 or 329; Math 222; Physics 201 or 207. Not for credit for those who have taken Chem 565

3. **Chemistry 565**: Biophysical Chemistry  
   *Type of proposal: Change in prereq*  
   *Current:* Prereq > Chem 110, 221, or 223; Math 222; Physics 201 or 207; Biocore 303, or Biochem 501 or con reg, or cons inst. Not for credit for those who have taken Chem 561  
   *Proposed:* Prereq > Chem 327 or 329; Math 222; Physics 201 or 207; Biocore 303, or Biochem 501 or con reg, or cons inst. Not for credit for those who have taken Chem 561

4. **Chemistry 668**: Biophysical Spectroscopy  
   *Type of proposal: New course*

5. **Chemistry 998**: Research-Chemical Biology  
   *Type of proposal: New course*

6. **Mechanical Engineering 231**: Introductory Engineering Graphics  
   *Type of proposal: Change in description*  
   *Current:* A freshman level course which provides the undergraduate engineering student with a background in descriptive geometry, orthographic projection, engineering drawing techniques, and computer-aided engineering graphics. Point line and plane relationships in projection; multi-view engineering drawings; auxiliary and section views; basic dimensioning; engineering applications.  
   *Proposed:* A freshman level course which provides the undergraduate engineering student with a background in descriptive geometry, orthographic projection, engineering drawing standards and annotation, and computer-aided engineering graphics. Point line and plane relationships in projection; multi-view engineering drawings; auxiliary and section views; basic dimensioning and annotation; engineering applications.

7. **Mechanical Engineering 313**: Manufacturing Processes  
   *Type of proposal: Change in description*  
   *Current:* A quantitative and qualitative study of manufacturing processes for metals,
plastics and ceramics including machining and forming; plastics and powder metallurgy; and welding and casting. Emphasis on process selection for optimum design. Laboratory experiments and demonstrations. Quality, strength, and economic evaluations.

Proposed: A quantitative and qualitative study of manufacturing processes including machining, forming, welding, and casting for metals; and extrusion, injection molding, thermoforming, and blow molding for plastics. Emphasis on process selection for optimum design. Laboratory experiments and demonstrations. Quality, strength, and economic evaluations.

8. Mechanical Engineering 314: Manufacturing Fundamentals

Type of proposal: Change in description

Current: An introduction to fundamental tools needed for the understanding and optimization of manufacturing processes. Modeling tools such as dimensional analysis, scaling and transport phenomena are presented as well as the role of manufacturing automation and systems, through lectures and laboratories. Engineering economy is also addressed in this course.

Proposed: An introduction to techniques for modeling in materials processing and improving design making in increasing the productivity of design and manufacturing processes. Quality improvement and engineering simulation are presented as well as the methods of engineering economy and the role of manufacturing automation and systems, through lectures and laboratories.