Courses to be considered at the meeting of March 1, 2012

**Course Proposals**

1. **Civil and Environmental Engineering/Environmental Studies/Urban and Regional Planning**  
   **717:** Water Resources Management Practicum Planning Seminar I  
   *Type of proposal: New course*

2. **Civil and Environmental Engineering/Environmental Studies/Urban and Regional Planning**  
   **718:** Water Resources Management Practicum Planning Seminar  
   *Type of proposal: Change in title*  
   **Current:** Water Resources Management Practicum Planning Seminar  
   **Proposed:** Water Resources Management Practicum Planning Seminar II

3. **Civil and Environmental Engineering/Environmental Studies/Urban and Regional Planning**  
   **719:** Water Resources Management Practicum  
   *Type of proposal: Change in title and credits*  
   **Current:** Water Resources Management Practicum. 5 credits.  
   **Proposed:** Water Resources Management Summer Practicum. 4 credits.

4. **Electrical and Computer Engineering 203:** Signals, Information, and Computation  
   *Type of proposal: New course*

5. **Electrical and Computer Engineering 210:** Introductory Experience in Electrical Engineering  
   *Type of proposal: New course*

6. **Electrical and Computer Engineering 219:** Analytical Methods for Electromagnetics Engineering  
   *Type of proposal: New course*

7. **Electrical and Computer Engineering 220:** Electrodynamics I  
   *Type of proposal: Change in course description*  
   **Current:** Vector analysis; potential theory; static and dynamic electric and magnetic fields; macroscopic theory of dielectric and magnetic materials; Maxwell’s equations; boundary conditions.  
   **Proposed:** Potential theory; static and dynamic electric and magnetic fields; macroscopic theory of dielectric and magnetic materials; Maxwell’s equations; boundary conditions; wave equation; introduction to transmission lines.

8. **Electrical and Computer Engineering 320:** Electrodynamics II  
   *Type of proposal: Change in course description*  
   **Current:** Static and dynamic electromagnetic fields; forces and work in electromechanical systems; magnetic circuits; plane wave propagation; reflection of plane waves; uniform transmission lines.
Proposed: Static and dynamic electromagnetic fields; forces and work in electromechanical systems; magnetic circuits; plane wave propagation; reflection of plane waves; generalized transmission line equations; current and voltage on transmission lines; impedance transformation and matching; Smith charts.

9. **Electrical and Computer Engineering 321**: Transmission Lines for Digital Applications  
   *Type of proposal: Course deletion*

10. **Materials Science and Engineering 470**: Capstone Project I  
    *Type of proposal: New course*

11. **Materials Science and Engineering 471**: Capstone Project II  
    *Type of proposal: New course*

12. **Materials Science and Engineering/Engineering Mechanics and Astronautics 541**:  
    Heterogeneous and Multiphase Materials  
    *Type of proposal: New course*

    *Type of proposal: New course*

14. **Mathematics 101**: Intermediate Algebra  
    *Type of proposal: Change in prereqs*  
    Current: Prereqs > Minimum math comp (1 unit ea HS alg & geom) & satisfactory placement scores. Open to Fr. Stdts may not receive cr for both Math 99 & 101, nor for both 100 & 101  
    Proposed: Prereqs > Minimum math comp (1 unit ea HS alg & geom) & satisfactory placement scores. Open to Fr. Closed to students with credit for Math 99 or 100.

15. **Mathematics 112**: Algebra  
    *Type of proposal: Change in prereqs*  
    Current: Prereqs > Intmed math comp (usually 3 units of HS math) & suitable placement scores, or Math 100 or 101. Open to Fr. Stdts may not receive cr for both Math 112 & 114.  
    Proposed: Prereqs > Intmed math comp (usually 3 units of HS math) & suitable placement scores, or Math 100 or 101. Open to Fr. Closed to students with credit for Math 114, Math 221 or Math 211.

16. **Mathematics 113**: Trigonometry  
    *Type of proposal: Change in prereqs*
17. **Mathematics 114**: Algebra and Trigonometry  
*Type of proposal: Change in prereqs*  
*Current:* Prereqs > Adv Math comp-algebra & suitable placement scores, or completion of Math 112. Stdts may not receive cr for both Math 113 & 114. Open to Fr.  
*Proposed:* Prereqs > Adv math comp & suitable placement scores, or Math 100 or 101. Open to Fr. Closed to students with credit for Math 114 or Math 221.

18. **Mathematics 171**: Calculus with Algebra and Trigonometry I  
*Type of proposal: Change in prereqs*  
*Current:* Prereqs > Intmed math comp (usu 3 units HS math) & suitable placement scores, or Math 100 or 101. Open to Fr. Stdts may not receive cr for both Math 112 & 114 nor for both 113 & 114.  
*Proposed:* Prereqs > Intmed math comp (usu 3 units HS math) & suitable placement scores, or Math 100 or 101. Open to Fr. Closed to students with credit for Math 112 and Math 113.

19. **Mathematics 211**: Calculus  
*Type of proposal: Change in prereqs*  
*Current:* Prereqs > Adv math competency – algebra & suitable placement scores or Math 112 or 114. May not receive full cr for both Math 211 & 221.  
*Proposed:* Prereqs > Open to Fr. Adv math competency – algebra & suitable placement scores or Math 112 or 114. Closed to students with credit for Math 221.

20. **Mathematics 213**: Calculus and Introduction to Differential Equations  
*Type of proposal: Change in prereqs*  
*Current:* Prereqs > Math 211 or 221. Stdts may not receive full degree cr for both Math 222 and 213 or both Math 223 and 213 or both Math 234 and 213.  
*Proposed:* Prereqs > Math 211 or 221. Closed to students with credit for Math 222, 223, or 234.

21. **Mathematics 221**: Calculus and Analytic Geometry  
*Type of proposal: Change in title and prereqs*  
*Current:* Calculus and Analytic Geometry. Prereqs > I) Adv math comp-alg & suitable plct scores, or Math 112 & (II) Adv math comp-trig & suitable plct scores, or Math 113; or Math 114. Open to Fr. May not rec cr for both Math 211 & 221.

22. Mathematics 222: Calculus and Analytic Geometry
Type of proposal: Change in title and prereqs
Current: Calculus and Analytic Geometry. Prereqs > Math 221. Stdts may not receive full degree cr for both Math 222 & 213. Open to Fr.

23. Mathematics 223: Calculus and Analytic Geometry
Type of proposal: Change in title and prereqs
Current: Calculus and Analytic Geometry. Prereqs > Math 222. Stdts may not receive full degree cr for both Math 223 & 213 or both Math 223 & 234 or both Math 223 & 235.

24. Mathematics 234: Calculus – Functions of Several Variables
Type of proposal: Change in prereqs
Current: Prereqs > Math 222. Stdts may not receive cr for both Math 223 & Math 234.
Proposed: Prereqs > Math 222. Closed to students with credit for Math 223.

25. Mathematics 320: Linear Algebra and Differential Equations
Type of proposal: Change in prereqs
Current: Prereqs > Math 222. Credit may not be received for both Math 320 & 340.
Proposed: Prereqs > Math 222.

Type of proposal: Change in prereqs
Current: Prereqs > Math 234 or Math 222 & 240. Credit may not be received for both Math 320 & 340.
Proposed: Prereqs > Math 234 or Math 222 & 240. Closed to students with credit for either Math 341 or Math 375.

27. Mathematics 341: Linear Algebra
Type of proposal: Change in prereqs
Current: Prereqs > Math 234 or cons inst. Credit may not be received for both Math 341 and any of Math 340 & 375. Open to Fr.
Proposed: Prereqs > Math 234 or cons inst. Closed to students with credit for Math 375. Open to Fr.
28. **Mathematics 375**: Topics in Multi-Variable Calculus and Linear Algebra
   
   **Type of proposal**: Change in prereqs
   
   **Current**: Prereqs > Math 276 or cons inst. Credit may not be received for both Math 375 and any of Math 340 & 341.
   
   **Proposed**: Prereqs > Math 276 or cons inst

29. **Mathematics 421**: The Theory of Single Variable Calculus
   
   **Type of proposal**: Change in prereqs
   
   **Current**: Prereqs > Math 234 or cons inst. Stdts cannot receive cr for Math 421 if they have taken Math 275-276. Open to Fr.
   
   **Proposed**: Prereqs > Math 234 or cons inst. Open to Fr.

30. **Mathematics 441**: Introduction to Modern Algebra
   
   **Type of proposal**: Change in prereqs
   
   **Current**: Prereqs > Math 340. Stdts who have passed Math 541 are not permitted to take Math 441 for credit.
   
   **Proposed**: Prereqs > Math 340 or 341 or cons inst. Closed to students who have credit for Math 541.