Instructor: Dr. Ali Feliachi  
Office: 841B ESB; Phone: 304-293-9690  
E-mail: alfeliachi@mail.wvu.edu  
Office Hours: T, Th: 11 - 12 or by appointment

Time/Place: T, Th 2:00-3:15, ESB 355

Prerequisite: Graduate standing or consent


Objective: Basic concepts in the theory of linear control systems: state variable representation, solution of state equations, controllability, observability, stability, transfer function descriptions, design of controllers and observers.

Topics:  
I. Preview  
II. State Variables and State Space Description of Dynamic Systems  
III. Analysis of Continuous and Discrete-Time Linear State Equations  
IV. Stability  
V. Controllability and Observability for Linear Systems  
VI. Design of Linear Feedback Control Systems and State Observers

Grading Policy:

<table>
<thead>
<tr>
<th>Homework</th>
<th>10%</th>
<th>Grades:</th>
<th>No make-up exams except by prior arrangement with instructor.</th>
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<tr>
<td>Tests:</td>
<td>50%</td>
<td>A: above 90</td>
<td>Work individually, ask instructor for clarification</td>
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<tr>
<td>Final:</td>
<td>40%</td>
<td>B: 80-89.99</td>
<td>Late assignment (after start of lecture on due date will not be graded)</td>
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<tr>
<td>Total:</td>
<td>100%</td>
<td>C: 70-79.99</td>
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<td>D: 60-69.99</td>
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Mix email is the official contact means. Students should attend all classes, and in case of absences, students are responsible for missed classes and announcements.

Tentative Calendar:  
Test #1 Sept 23, 2014  
Test #2 Oct 23, 2014  
Final 3-5 PM, Dec. 15, 2014

Inclusivity Statement: The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (293-6700). For more information on WVU's Diversity, Equity, and Inclusion initiatives, please see http://diversity.wvu.edu.

Academic Integrity. The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at http://www.arc.wvu.edu/admissions/integrity.html. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.