

## EECE 506 Mathematical Methods in Electrical Engineering

### Fall 2009

<b>Coordinator:</b>	David Klotzkin, Associate Professor Office: Q17. Email: <i>klotzkin@binghamton.edu</i> Office Hours: TBD (or by appointment)
<b>Textbook:</b>	<ul style="list-style-type: none"> <li>• Erwin Kreyszig, <i>Advanced Engineering Mathematics</i>, 9<sup>th</sup> Ed., John Wiley &amp; Sons, Inc., 1999 (or earlier edition).</li> <li>• Class website will be on Blackboard</li> </ul>
<b>Prerequisite:</b>	Calculus. Elementary linear algebra, matrices, and probability.
<b>Objective:</b>	Primary focus: Applications of matrix theory, statistics, Fourier transforms, advanced calculus to engineering problems. Guided study and seminar: selected topics in advanced engineering mathematics. Applications of available tools (Matlab, Mathematica) to engineering problems.
<b>Topics:</b>	<ol style="list-style-type: none"> <li>1. Linear algebra and matrix theory.</li> <li>2. Probability and statistics.</li> <li>3. Laplace/Fourier transformation</li> <li>4. ODE, PDE, Vector calculus</li> <li>5. Complex analysis</li> <li>6. Numerical methods</li> <li>7. Optimization</li> </ol>
<b>Grading:</b>	<ul style="list-style-type: none"> <li>• Homework (about 8): 10%</li> <li>• Presentation: 20%</li> <li>• Exam: #1: 35%, Final: 35%. (closed book)</li> </ul>

#### H1N1 Flu Policy

If you have a fever, body aches, cough, and/or sore throat please do not come to class. The university recommends that you remain at home or in your room and follow instructions from the University's Health Services (<http://www2.binghamton.edu/health/>). If possible, notify your instructor by email or phone. Every effort will be made to accommodate make-up work. While you will not be asked to validate your illness with a medical note, it is considered a violation of the academic honesty code if you abuse this policy for non-medical reasons.

Binghamton University maintains an updated H1N1 webpage at <http://www2.binghamton.edu/news/updates/index.html>

For recommendations on what to do if you get sick, see the CDC site at <http://www.cdc.gov/h1n1flu/sick.htm>

Academic Integrity Policy

Violations of academic integrity will not be tolerated. They will be dealt with as described in the Watson School Academic Integrity Policy, at [http://www.binghamton.edu/watson/Watson\\_Academic\\_Honesty\\_Policy.pdf](http://www.binghamton.edu/watson/Watson_Academic_Honesty_Policy.pdf) .