

**Concurrent Degree in ENGINEERING MATHEMATICS (15 credits)**

Curriculum Sheet for **Fall 2017** Catalog Year

1. MATH 462: Mathematical Modeling	3 cr. hrs.
2. Choose <i>three</i> courses from one of the following two areas	9 cr. hrs.
<u><b>Area 1: Numerical and Statistical Analysis:</b></u> MATH 420 Stochastic Processes <sup>^</sup> , or ECE 555 Stochastic Processes* <sup>^</sup> MATH 425 Mathematical Statistics <sup>^</sup> , or MATH 472 Numerical Analysis MATH 473 Matrix Computation	<u><b>Area 2: Modern &amp; Classical Applied Math</b></u> MATH 404 Dynamical Systems MATH 454 Fourier and Boundary MATH 455 Func of Complex Var with App MATH 458 Intro to Wavelets MATH 516 FEM for Differential Equations*
3. Mathematics Elective: Take one additional course from Area (1) or Area (2), <u>OR</u> one of the following courses <ul style="list-style-type: none"> <li>• ECE 3100 Data Science I</li> <li>• CIS 3200 Data Science II</li> <li>• ECE 567 Non-Linear Control Systems</li> <li>• IMSE 505 Optimization*</li> <li>• IMSE 511 Design &amp; Analysis of Experiments*</li> <li>• MATH 523 Linear Algebra with Applications*</li> <li>• MATH 514 Finite Difference Methods for Diff Eqns*</li> <li>• ME 518 Advanced Engineering Analysis*</li> <li>• ME 519 Basic Computational Methods in Engineering*</li> </ul>	3 cr. hrs.
<b>TOTAL</b>	<b>15 cr. hrs.</b>
* Graduate tuition assessment applies. Permission is required to take graduate courses. ^ Credit for only one from MATH 420, ECE 555 and IMSE 506 and only one of MATH 425 and IMSE 510	

**The concurrent Engineering Mathematics degree is available only as a secondary degree, for students earning a primary Bachelor of Science in Engineering (B.S.E.) degree.**