Graduate Certificate in Applied Mathematics

The Graduate Certificate in Applied Mathematics is designed to enhance training in various aspects of applied mathematics. It is intended for students who are currently pursuing a graduate degree in a discipline outside of the Mathematics Department, or for students who wish to pursue the certificate as a stand-alone program.

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (http://catalog.ku.edu/graduate-studies) section of the online catalog.

Please consult the Departments & Programs (http://catalog.ku.edu/liberal-arts-sciences) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Completion of two MATH graduate courses from those listed in the Certificate Requirements, with a minimum 3.0 GPA. These courses can then count towards the 12 credits required for the certificate. Current KU graduate students as well as those who successfully complete the two-course admission requirement as non-degree seeking students are eligible to apply.

Please see the Admission to Graduate Study (http://policy.ku.edu/graduate-studies/admission-to-graduate-study) policy for information on admission requirements. Applications may be submitted at http://graduate.ku.edu/ku-graduate-application.

The proposed certificate requires the completion of four courses from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 601</td>
<td>Algebraic Coding Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 605</td>
<td>Applied Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 611</td>
<td>Time Series Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 630</td>
<td>Actuarial Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 647</td>
<td>Applied Partial Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 648</td>
<td>Calculus of Variations and Integral Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 650</td>
<td>Nonlinear Dynamical Systems</td>
<td>3</td>
</tr>
<tr>
<td>MATH 724</td>
<td>Combinatorial Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 725</td>
<td>Graph Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 727</td>
<td>Probability Theory</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 627</td>
<td>Probability</td>
<td></td>
</tr>
<tr>
<td>MATH 728</td>
<td>Statistical Theory</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 628</td>
<td>Mathematical Theory of Statistics</td>
<td></td>
</tr>
<tr>
<td>MATH 750</td>
<td>Stochastic Adaptive Control</td>
<td>3</td>
</tr>
<tr>
<td>MATH 781</td>
<td>Numerical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 782</td>
<td>Numerical Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 783</td>
<td>Applied Numerical Methods for Partial Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 865</td>
<td>Stochastic Processes I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 866</td>
<td>Stochastic Processes II</td>
<td>3</td>
</tr>
</tbody>
</table>

Other courses (600 level or above) may be substituted with the approval of the Director of Graduate Studies. At least two courses must be at the 700 level or above. Courses should be selected in consultation with an advisor.