

# NOMINATION FORM FOR STATE GUARANTEE GENERAL EDUCATION DESIGNATION

A course must be an institution approved general education course

Section A: Complete Section A and check the General Ed category and criterion that the proposed course is designed to address. For example, a Geography course would check Social And Behavioral Science and criterion 4		CCHE Use Only  Date Received:  Date of Review:
<b>Applying for State Guarantee under the content criteria for</b>	CONTENT CRITERIA	
➤ Arts and Humanities	1. Arts and Expression 2. Humanities 3. Ways of Thinking	
➤ Communications	1. Intro Writing 2. Advanced Writing	
➤ <b>Mathematics</b>	All Criteria required – do not need to select	
➤ Natural & Physical Science	All Criteria required – do not need to select	
➤ Social & Behavioral Science	1 Historical, cultural or social frameworks 2 US History framework 3. Economic and political systems 4. Physical and cultural geography 5. Human behavior	
Course number MATH 181 & MATH 182	Credit Hours	
Course name Fundamentals of Mathematics I & Fundamentals of Mathematics II		
Prerequisites MATH 181 is a prerequisite for MATH 182		
I certify that this course is an approved general education course offered at my institution. The attached content curriculum description applies to all course sections taught at my institution, in accordance with NCA guidelines.		
Signature of Provost/Vice – President of Instruction	Date	

SECTION B: Complete sections 1 –5 and any other section that applies to the nominated course unilaterally at your institution. For example, if all sections of a writing course require the development of technology skill, complete section 7. You may reference content or curriculum guides, syllabi, or attach supporting documents in responding to a question.
1. State scope of course and the primary concepts or topics it covers.  Two-course sequence introduces heuristics for solving non-routine problems toward relearning fundamental mathematics for conceptual understanding. MATH 181 covers elementary mathematical structures, including natural numbers, integers, rational numbers, relations, functions, and equations. MATH 182 includes probability, statistics, measurement, and applications of mathematics in science.
2. Provide rationale and/or evidence for how the nominated course meets the specific content criteria  The ultimate goal of this course sequence is to increase content knowledge and foster confidence in teachers of elementary mathematics. Course content involves: <ul style="list-style-type: none"> <li>• use of mathematical ideas to structure understanding of and investigate questions in the world around us.</li> <li>• treating mathematical content at an appropriate level.</li> <li>• use of numerical, graphical and algebraic representations.</li> <li>• interpretation of data and analysis of graphical information, in addition to communication of process and solutions in written and oral form.</li> <li>• use of mathematical ideas to formulate and solve problems.</li> <li>• using technology such as calculators and computers to support use of mathematics.</li> </ul>

<p>3. Describe student outcomes</p> <p>Students are expected to:</p> <ul style="list-style-type: none"> <li>• use an activity approach to learning and teaching mathematics.</li> <li>• solve mathematical problems using a variety of strategies.</li> <li>• use appropriate technology in exploring mathematical problems.</li> </ul> <p>In MATH 181, students are expected to:</p> <ul style="list-style-type: none"> <li>• use patterns and functions to model and explore real world phenomena.</li> <li>• operate in decimal and non-decimal bases.</li> <li>• use appropriate models for exploring number systems.</li> <li>• solve classical problems in elementary number theory.</li> </ul> <p>In MATH 182, students are expected to:</p> <ul style="list-style-type: none"> <li>• use standard and non-standard units of measure to solve problems concerning distance, perimeter, area, surface area, volume and weight.</li> <li>• solve problems involving angle measure and identification of angles.</li> <li>• compute the descriptive statistics of a given set of data.</li> <li>• graph sets of data and interpret graphs of data.</li> <li>• use the tools of inferential statistics to analyze data sets.</li> <li>• solve problems in probability.</li> </ul>						
<p>4. Describe how students demonstrate and develop critical thinking in this course.</p> <p>Course assessments will evaluate both procedural and conceptual knowledge (understanding). Course uses hands-on active learning techniques that present problem situations that are inquiry driven within a problem solving context.</p>						
<p>5. Describe how students demonstrate and develop reading competency</p> <p>Not applicable</p>						
<p>6. Describe how students demonstrate and develop written communication competency</p> <p>Not applicable</p>						
<p>7. Describe how students demonstrate and develop technology competency</p> <p>Not applicable</p>						
<p>8. Describe how students demonstrate and develop mathematics competency</p> <p>Examination questions and performance assessments will evaluate student proficiency in using mathematical ideas to formulate and analyze problems.</p>						
<p>III. Check all course formats that apply to this course.</p>	<p>Classroom X</p>	<p>Internet</p>	<p>Interactive TV</p>	<p>Individualized instruction</p>	<p>Correspondence</p>	<p>Other</p>

1. Attach the documentation that is submitted to your institution's general ed council to gain general education approval (e.g., generic curriculum syllabus, content guide)

2. Attach the course section syllabus for the nominated course.

Four-year institutions: Attach 3 examples of course syllabi representing how the course is taught by different faculty.

Community colleges: Attach 1 course syllabi from each college representing how the course is taught by different faculty.

3. If any course section is offered as self-paced instruction, including correspondence, individualized instruction, attach the quality standards that apply to the course section and syllabi from all these course sections.