## Math 120 Course Content and Objectives

<table>
<thead>
<tr>
<th>COURSE CONTENT AND SCOPE</th>
<th>Hours Per Topic</th>
<th>COURSE OBJECTIVES - Lecture: Upon successful completion of this course, the student will be able to... (Use action verbs - see Bloom’s Taxonomy for ‘action verbs requiring cognitive outcomes.’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Lecture:</strong> Outline the topics included in the lecture portion of the course (Outline reflects course description, all topics covered in class).</td>
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<tr>
<td>Constructions: Perpendicular bisection of line segment, angle bisection, perpendiculars and parallels, regular polygons, concurrent cevians, tangents to circles, and square root.</td>
<td>30</td>
<td>Construct perpendiculars, bisectors, and congruent angles using compass and straight edge.</td>
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<tr>
<td>Measurement: Length, angles, proportions, area, and volumes.</td>
<td>28</td>
<td>Apply algebraic methods to find angle measures. Analyze figures containing congruent triangles. Use proportions to determine the measures of corresponding sides of similar figures. Apply the Pythagorean theorem. Find areas of various polygons. Analyze circles and use various properties to measure arcs.</td>
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<tr>
<td>Synthetic reasoning: Definitions, axioms, postulates, and proofs.</td>
<td>30</td>
<td>Demonstrate confidence in the use of logical reasoning. Formulate an indirect proof. Formulate direct proofs.</td>
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<tr>
<td>Final examination.</td>
<td>2</td>
<td>Final examination.</td>
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<tr>
<td><strong>Total:</strong></td>
<td>90</td>
<td></td>
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<tr>
<td><strong>Total Lecture Hours In Section I Class Hours:</strong></td>
<td>90</td>
<td><strong>Total:</strong></td>
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