

2009-2010 Annual Academic Program Assessment Report

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| Academic Program: | A.S. Mathematics |
| Academic Program Division: | Science, Math and Engineering |
| Program Responsible Person: | Richard Arrigotti |
| Assessment Team Member/s: | Jeff Downs, Jim Strange, Mike Hardie, Scott Morrison, Rich Arrigotti |
| Date Submitted: | August 23, 2010 |
| College Strategic Plan Goals: | <ol style="list-style-type: none"> 1. Improve student success in program completion and graduation rates. 2. Ensure institutional excellence in teaching, programs and services. 3. Embrace our college's many communities and respond to their diverse needs. |
| Division Mission: | <ul style="list-style-type: none"> ○ To prepare students to succeed in college-level science, math and engineering courses. ○ To prepare students to transfer to 4-year colleges. ○ To provide students with the knowledge they need in their careers. ○ To provide students with opportunities for personal enrichment |
| Program Mission: | Provide the academic knowledge and skills for successful transfer to meet higher educational goals. |

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Outcome #1

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| <p>Program Goal:</p> | <p>By providing students with mathematical knowledge, WNC AS Math graduates will grow intellectually and have the ability to more easily integrate and develop technological advances into their academic and professional lives.</p> |
| <p>Outcome:</p> | <p>Students who complete an AS Math degree are expected to understand the content of calculus. Students who complete Math 120 to fulfill their general education requirement in mathematics are expected to understand basic problems in finance, probability and statistics.</p> |
| <p>Assessment Methods Used and Criteria for Success:</p> | <p>Imbed common questions into exams for all sections of Calculus I, II, and III, and also for sections of Math 120.</p> |
| <p>Summary of Results and Conclusions Drawn:</p> | <p>The number of correct responses for the two questions imbedded in: Calculus I averaged 76%; Calculus II averaged 80%; Calculus III averaged 80%. This data indicates a significant majority of the students are learning the material. The average number of correct responses for the three common questions involving finance, probability and statistics that were imbedded in sections of Math 120 was 65%. This data indicates a sizable majority of the students are learning the material.</p> |
| <p>Use of Results:</p> | <p>One adjunct faculty member who taught Math 120 had only an average correct response of 35%. This was a cause for concern, but the problem solved itself. This faculty member moved out of the area and no longer teaches at WNC. (A more detailed report on the common imbedded questions has been removed for the purposes of publishing on WNC's public website.)</p> |

Conclusion: Three of these six sections were taught by the same adjunct faculty member who seemed to not have good success in communicating the material – his response ratio was for question

1. $24/53 = 45\%$
2. $34/66 = 52\%$
3. $6/66 = 9\%$

This adjunct faculty member has moved out of the area and is no longer teaching at WNC.

The other three sections were taught by two faculty members whose response ratio was for question

1. $46/67 = 69\%$
2. $39/65 = 60\%$
3. $42/65 = 65\%$

The later data indicates a sizable majority of the students are learning the material.