THE UNIVERSITY OF NORTH CAROLINA AT ASHEVILLE
FACULTY SENATE

Senate Document Number 0912F

Date of Senate Approval 12/06/12

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Statement of Faculty Senate Action:

APC Document 5 **Change course description for ECE 220**

Effective Date: Fall 2013

1. Delete: On page 136, the description for ECE 220:

> **220 Analytical Foundations of Electrical and Computer Engineering (3)**
> The modeling, analysis and solution of circuit theory, control, communication, computer and other systems arising in electrical and computer engineering using various analytical techniques. Numerical solutions to ECE problems using MATLAB and SPICE. Prerequisites: grade of C- or better in ECE 200. Spring.

Add: On page 136, in place of deleted entry:

> **220 Analytical Foundations of Electrical and Computer Engineering (3)**
> This course is designed to acquaint you with the basic mathematical tools used in electrical and computer engineering. The concepts covered in this course will be used in higher level courses and, more importantly, throughout your career as an engineer. Major topics of the course include complex numbers, real and complex functions, signal representation, elementary matrix algebra, solutions to linear systems of equations, linear differential equations, Laplace transforms used for solving linear differential equations, Fourier series and transforms and their uses in solving ECE problems. Prerequisites: grade of C- or better in ECE 200. Spring.

Impact: There will be no impact on the resources and staffing of the Engineering program due to this change. The content of the course remains largely unchanged, but the course description is being updated to be more readable and to better represent its content.

Rationale: This course is part of the Engineering curriculum at NCSU. The description change is requested to match a change being made to the NCSU catalog. Making this change to the UNC Asheville catalog will maintain consistency between the catalog listings for courses included in the JEM program.