Department: Mathematics

Course No: MATH 210Q

Title: Multivariable Calculus

Credits: 4

Contact: David Gross

WQ: Q

Catalog Copy: 210Q. Multivariable Calculus. Either semester. Four credits. Four class periods. Prerequisite: MATH 114, 116, or 121 or a score of 4 or 5 on the Advanced Placement Calculus BC exam. Recommended Preparation: A grade of C- or better in MATH 114 or MATH 116. Not open for credit to students who have passed MATH 220. Open to sophomores. Two- and three-dimensional vector algebra, calculus of functions of several variables, vector differential calculus, line and surface integrals.

Course Information:
a: The course will continue to cover the standard calculus of multivariable functions culminating in vector calculus (line and surface integrals, Green's and Stoke's Theorem).
b: The exam format will remain the same: either one or two midsemester exams, a final exam and other work depending on the instructor.
c: Two- and three-dimensional vector algebra, calculus of functions of several variables, vector differential calculus, line and surface integrals.

Q Criteria : The course include mathematics at or above the basic algebra level as an integral part of the course which is used throughout the course.The course included the use of basic algebraic concepts such as: formulas and functions, linear and quadratic equations and their graphs, systems of equations, polynomials, fractional expressions, exponents, powers and roots, problem solving and word problems. The course require the student to understand and carry out actual mathematical manipulations and use them in order to draw conclusions.

Role of Grad Students: The course is almost always taught by regular faculty, visiting faculty or post-doctural faculty. On occasion, some
sections might be taught by well-qualified and senior graduate student assistants. They will have minimal supervision.