# Math 252 Syllabus

**Class Meeting Days and Times:** MWF 12-12:50 Waldron 215

**Instructor:** Dr. Wei-Chi Yang

Office Location: Whitt 208

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Office Hours: MWF 9-9:50 am

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**Catalog Entry**

MATH 252 Calculus and Analytic Geometry IV
Three hours lecture, three hours credit for each course (3:3).

**Prerequisite:** MATH 152, MATH 251 is prerequisite for MATH 252.

The Math 252 deals with functions of several variables, discussion of limits, continuity, and differentiability, multivariable optimization, iterated integrals and applications to volumes, line integrals and Green's Theorem.

Mathematical software packages such as Maple and graphing calculators will be used as illustrative and problem solving devices.

**Course Content:**

Detailed Description of Content of Course

-Functions of several real variables, graphs, continuity and limit

-Partial derivatives, directional derivatives and gradient, differentiability

-Tangent and normal planes, extrema, optimization problems, Lagrange multipliers

-Iterated integrals, volumes, surface areas, change of variables, integration in polar, cylindrical and spherical coordinates

-Line integrals, Green's theorem, divergence and Stokes theorem.

Detailed Description of Conduct of Course

Instructors will use a combination of lectures, group work and computer laboratory sessions. Some may require students to present homework problems to the rest of the class on a regular basis. Software packages and graphing utilities will be used in solving problems and as illustrative aids.

Goals and Objectives of the Course

Students are expected to learn the basic principles of Calculus and Analytic Geometry and to demonstrate the use of these principles in problem solving. In addition to paper and pencil problem solving, students will use appropriate graphing calculator and computer algebra system technology to analyze parametric representations, conic sections, sequences, series and features of multivariable calculus.

**Required Textbook:** See Bookstore for details.

**Assessment Measures**

Assessment measures include a final examination and include the following:

in-class tests, quizzes, and maybe in-class presentations.

**Method of Evaluation:**

Grading: The following grading scale will be used:

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90-100 = A ; 80-89 = B ; 70-79 = C ; 60-69 = D ; 0-59 = F

Note. A = 100-93, A- = 92.9-90, B+ = 89.9-87, B = 86.9-83 and so on.0-59 = F

Tests and Exams: No makeup exams will be allowed unless a proper document is provided. Quizzes (20%); Tests (60%); Final (20%)

Homework: Homework will not be counted toward your final grade. However, if I collect and grade your homework, it will be counted as bonus toward your grade. In addition, most questions on quizzes

and tests will be from homework assigned in class. Attendance: ** I will choose to take the attendance once in a while. Those who miss a class will lose some points from a quiz or a test and those who show up will get extra credits toward a quiz or a test.

**Students with Disabilities**; Students seeking academic accommodations under the Americans with Disabilities Act must register with the Center for Accessibility Services (CAS) to determine eligibility. Students qualified for academic accommodations will receive accommodation letters and should meet with each course professor during office hours, to review and discuss accommodations. To begin the registration process, complete a Student Registration Form and submit documentation to PO Box 6902, Radford, Virginia 24142, or deliver to the Russell Hall, Room 325, by fax to 540-831-6525, or by email to cas@radford.edu (See documentation guidelines). For more information, visit the Center for Accessibility Services (CAS) website or call 540-831-6350.

**Honor Code** All tests and the final must be pledged. The Honor Code will be strictly enforced in this course.