

**Instructor:** Tatiana Doytchinova  
**Office hours:** Tue 10:00 am – 10:50 am  
Thu 10:00 am – 10:50 am, or by appointment

**email:** [tdoytchinova@wpi.edu](mailto:tdoytchinova@wpi.edu)  
**Office:** SH422

**Scheduled Meeting Times:**

Section	Lectures	Discussions
SL01	MT-R 9:00-9:50 in Olin Hall 109	F 2:00-2:50 in Stratton Hall 301

## SYLLABUS

**RECOMMENDED BACKGROUND:** MA1021 or MA1020 (Calculus I)

**TEXTBOOKS (recommended, not required):**

- 1) Thomas' Calculus, Early Transcendentals (any edition)
- 2) Herman and Strang, Calculus Volume 1 (OpenStax)

<https://openstax.org/details/books/calculus-volume-1>

You can just use the class notes.

**COURSE COVERAGE.** This course provides an introduction to integration and its applications. Topics covered include: Riemann sums, fundamental theorem of calculus, basic techniques of integration (substitution, integration by parts, trigonometric integrals, integration by partial fractions), volumes of revolution, arc length, inverse trigonometric functions, exponential and logarithmic functions, and applications. The course content is prescribed by the Department of Mathematical Sciences.

**ASSESSMENT.** Your final grade for the course will be based on the degree of mastery of the course content listed above, as measured by your performance on quizzes, tests, and the final exam.

**ATTENDANCE.** You are supposed to spend 12-15 hours per week on this course. Of these, you will be spending 4 hours per week in class for: 3 hours of lectures and one discussion session. You are expected to attend all lectures and discussions (if you miss a class, it is your responsibility to make a copy of the class notes from another student and make sure you learn what you have missed). Aside from the 4 hours that you spend in class each week, you should expect to spend at least 8 hours more each week working on your own: reading and organizing your notes, solving problems.

**HOMEWORK and QUIZZES.** Homework is assigned for each section of the book covered and is a required component of the course. Working the exercises is intended to help you learn, and give you some perspective on your progress. If you do not do homework regularly, you will not learn. I suggest that you keep a notebook to write the homework in (this could be the same notebook in which you write your lecture notes). Discipline yourself to write clear readable notes and solutions, they will be of great value as review. Homework will **not** be collected for grading, but if you do not do it, you will not learn.

Short quizzes (intended for 10-15 minutes) will be given very often. The problems on quizzes will be very similar to the homework problems (although not exactly the same). **One lowest quiz score will be dropped.** Quizzes will account for 20% of your grade.

Each student can retake (with different questions) a quiz **once within two weeks after the quiz was given**. You can retake even all quizzes, but no more than one retake per quiz is allowed and each quiz you decide to retake must be taken **within two weeks after the quiz was given in class**. (If you retake a quiz, the higher of the two scores will be used.) **The retake quizzes will be given only during the discussion sessions on Fridays! If you miss a discussion session for a legitimate reason, you will be able to retake a recent quiz during the TAs office hours.**

To help you prepare for the quizzes in a more focused and efficient way, solutions to the homework problems will be available ahead of time. You can look at my solutions when you work on your homework assignments, but remember that **no notes and no calculators will be allowed on quizzes, tests and the final exam**. Homework assignments (and my solutions for homework assignments) are intended to help you learn the material. **Just looking at my solutions will not help. But solving (or trying to solve) all the assigned problems and comparing your solutions with my solutions will help.** In case you do not understand the posted solutions, contact the instructor (or the TA) as soon as possible.

**DISCUSSIONS.** Once a week, on Friday, you will attend in person a discussion session. This will give you an opportunity to discuss difficult material with the TA and go over the solutions to the practice problems. The TA will also give and grade quizzes and review course material.

At the end of the discussion session you will be given an opportunity to retake a recent quiz. **The attendance is required!**

**TESTS, FINAL EXAM, BASIC SKILLS TEST.** There will be two in-class tests, Basic Skills Test and a Final Exam on the following dates:

**Test1** - Tuesday, March 4 during the lecture

**Test2** - Thursday, April 24 during the lecture

**Basic Skills Test** – Monday, April 28 during the lecture

**Final Exam** – Monday, May 5 during the lecture

There will be three in-class review sessions on the following dates:

Review for Test1 - Monday, March 3

Review for Test2 - Tuesday, April 22

Review for Final Exam –Thursday, May 1

Each test and the Final Exam are timed and will take 50 minutes. This time limit will be strictly enforced. The Basic Skills Test is intended for 20 minutes.

Make up tests will not be given, except in cases of documented illness or grave emergency. The two tests, the Basic Skills Test and the Final Exam are closed-book, in-class exams. No notes, written or electronic, are allowed. All work must be shown to receive full credit.

Note: All students will be given an opportunity to retake (with different questions) one test of their choice (Test1 or Test2) on Tuesday, April 29 (during the lecture). **If you retake a test, the highest of your two scores will be kept.**

**Basic Skills Test:** In order to pass this course, students are required to pass a minimum competency exam. This Basic Skills test consists of 7 questions covering the fundamental concepts covered in this course. You must answer 5 (or more) of the questions correctly in order to pass the Basic Skills test.

- The Basic Skills test is strictly “pass/fail”, and is an additional requirement for passing the course.
- Your answers to the questions on the Basic Skills test are either “right” or “wrong” – no partial credit will be given.
- Students who pass the Basic Skills test will have their course grades assigned based on their total work in the course.
- Students whose total coursework in MA 1120 is not otherwise at a passing level will receive a grade of NR for this course, regardless of their score on the Basic Skills test.
- Students whose total coursework would result in a passing grade but do not pass the Basic Skills test will have two additional chances to re-take the Basic Skills test. Students who do not pass a re-take of the Basic Skills test will receive NR for the course.

**FINAL GRADE.** Your final grade will be calculated in the following way:

25% of the grade come from the Test1,

25% of the grade come from the Test2,

30% of the grade come from the Final Exam if the student passes the Basic Skills Test,

20% of the grade come from the Quizzes.

Grades will be assigned as either A, B, C, I, or NR.

- An average of 90% and passing of the Basic Skills Test will ensure an A for the course.
- An average of 80% and passing of the Basic Skills Test will ensure a B for the course.
- An average of 65% and passing of the Basic Skills Test will ensure a C for the course.

Depending on the overall class performance and due to curving, the above target percentages could be lowered a little bit (do not count on it), however, they will not be raised. In other words, 90% performance guarantee you an A, etc.

**INTEGRITY.** Each student is expected to familiarize him/herself with WPI's Academic Honesty policies which can be found at <https://www.wpi.edu/about/policies/academic-integrity/dishonesty>. All acts of fabrication, plagiarism, cheating, and facilitation will be prosecuted according to the university's policy.

**ACADEMIC ACCOMODATIONS and DISABILITIES.** *Students with approved academic accommodations should plan to submit their accommodation letters through the [Office of Accessibility Services Student Portal](#). Should you have any questions about how accommodations can be implemented in this particular course, please contact me as soon as possible. Students who are not currently registered with the Office of Accessibility Services (OAS) but who would like to find out more information regarding requesting accommodations should plan to contact them via email: [AccessibilityServices@wpi.edu](mailto:AccessibilityServices@wpi.edu) and/or via phone: (508) 831-4908 and/or by visiting Unity Hall, 5<sup>th</sup> floor. Use <https://www.wpi.edu/student-experience/resources/accessibility-services> for more information.*