# Math 120, Section 1 - Spring 2019 Syllabus

| Professor:    | Dr. Andy Felt  |                   | Office: | SCI D355       |
|---------------|----------------|-------------------|---------|----------------|
| Office Hours: | M, T, R, F     | 9:00 - 9:50  a.m. | Phone:  | 346-4207       |
|               | or by arrangem | ent               | email:  | afelt@uwsp.edu |

Class Meetings: M, T, R, F, 8:00-8:50, Sci. A207.

Text: Calculus: Early Transcendentals, 8th ed., by James Stewart, ISBN 978-1-285-74155-0, available from UWSP Text Rental.

Course Web Page: http://www4.uwsp.edu/math/afelt/teaching/M120.html

Calculators and Computers: A calculator will not be necessary in this course, but you may find one useful.

Prerequisites: Math 118 and 119; or suitable placement score

## Fundamental Skills to be Learned:

- Recognizing real life situations where mathematical models apply.
- Translating the real life situations into mathematical models.
- Solving the mathematical model.
- Interpreting the solution in the context of the real life situation.

# Grading:

| Homework Assignments       | 130 | points | This many points gets you | $\Rightarrow$ | at least this grade |
|----------------------------|-----|--------|---------------------------|---------------|---------------------|
| Class Participation        | 20  | points | 552 (92%)                 | $\Rightarrow$ | Α,                  |
| 3 Exams                    | 300 | points | 540 (90%)                 | $\Rightarrow$ | A-,                 |
| Final Exam (Comprehensive) | 150 | points | 528 (88%)                 | $\Rightarrow$ | B+,                 |
| Total                      | 600 | points | 492 (82%)                 | $\Rightarrow$ | B, etc.             |

Homework: Assignments should have the following format:

- Looseleaf paper only (no spiral schnibbles)
- Name, section, assignment, date on first page
- Stapled, each assignment separately

The grade for each assignment will include 20% based on accuracy and quality of written communication. Examples on this topic are given in Assignment 0. No late homework is accepted for any reason. Usually, there will be a class day between the day homework is assigned and the day it is due. Assignments are due at the beginning of class on the day they are due.

Help: Everybody needs help at some point. The key is to *get help right away* when you need it. Here are some ways to get help:

- ask a question in class;
- ask me during office hours;
- ask me in an email;
- the Math Room (SCI A113A) provides help for students in this course;
- the Tutoring and Learning Center (below the library) has two kinds of help available;
  - tutoring sessions once per week, and
  - drop-in tutoring at the TLC.

More information on TLC help will become available after the semester begins.

Disability Accommodations: Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. All accommodations must be approved through Disability Services, located at 609 Learning Resources Center or https://www.uwsp.edu/datc/Pages/default.aspx.

#### General Course Policies:

- Exams must be ONLY your own work. You may work together on homeworks (unless otherwise specified), but the material you turn in must be *your own*. Please see https://www.uwsp.edu/dos/Pages/Student-Conduct.aspx to read about your rights and responsibilities as a student, and Chapter 14 (at that page) to read about Wisconsin's academic misconduct code.
- Use of calculators or other technology will not be allowed on exams.
- Cell phones, computers, and other technology should be turned off during class and exam times.
- Everyone becomes ill sometimes. When you become ill, I expect you to make a reasonable effort to come to class. When illness or other emergencies require absence from class, I expect you to contact me immediately, preferably by email. I expect you to keep up with what is being taught by following in your book and doing the homework. Either have a friend bring your homework, or slide it under my office door. To account for illness and other emergencies, at least three homework scores will be dropped.

## Tentative Calendar

| r       |                                       |  |
|---------|---------------------------------------|--|
| Week of | Approximate Coverage                  |  |
| Jan 22  | 2.1 Tangent and velocity              |  |
|         | 2.2 Limits                            |  |
| Jan 28  | 2.3 Basic limit laws                  |  |
|         | 2.4 Limit definition                  |  |
| Feb 4   | 2.6 Limits at infinity                |  |
|         | 2.7 Derivatives and rates of change   |  |
| Feb 11  | 2.8 Derivative as a function          |  |
|         | 3.1 Derivatives of polynomials, expo- |  |
|         | nentials                              |  |
| Feb 18  | 3.2 Product, quotient rules           |  |
|         | Exam I                                |  |
|         | 3.3 Derivatives of trig functions     |  |
| Feb 25  | 3.4 Chain rule                        |  |
|         | 3.5 Implicit differentiation          |  |
| Mar 4   | 3.6 Derivatives of log functions      |  |
|         | 3.8 Exponential models                |  |
| Mar 11  | 3.9 Related Rates                     |  |
|         | 3.10 Linear approximations            |  |

| Mar 25 3.11 Hyperbolic functions 4.1 Maximum, minimum values  Apr 1 4.2 Mean value theorem Exam II  Apr 8 4.3 The shape of a graph 4.4 L'Hôpital's rule 4.5 Curve sketching  Apr 15 4.7 Optimization 4.8 Newton's method  Apr 22 4.9 Antiderivatives 5.1 Areas and distances 5.2 The definite integral  Apr 29 Exam III 5.3 The fundamental theorem of calculus  May 6 5.4 Indefinite integrals and the net |         |                                     |  |  |  |  |
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| Apr 29 Exam III 5.3 The fundamental theorem of calculus  May 6 5.4 Indefinite integrals and the net   | Apr 22  | 4.9 Antiderivatives                 |  |  |  |  |
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| Culus  May 6 5.4 Indefinite integrals and the net   | Apr 29  | Exam III                            |  |  |  |  |
| May 6 5.4 Indefinite integrals and the net  |         | 5.3 The fundamental theorem of cal- |  |  |  |  |
|   |         | culus                               |  |  |  |  |
| shapes theorem  | May 6   | 5.4 Indefinite integrals and the n  |  |  |  |  |
| change theorem  |         | change theorem                      |  |  |  |  |
| 5.5 Substitution  |         | 5.5 Substitution                    |  |  |  |  |
| none 5.8 Exponential growth and decay   | none    | 5.8 Exponential growth and decay    |  |  |  |  |
| Finals Thursday, 16 May Final Exam  | Finals  | Thursday, 16 May Final Exam         |  |  |  |  |
| 14:45–16:45   |         | 14:45–16:45                         |  |  |  |  |