

Math 123: Syllabus and Integration By Parts

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Outline

- 1 Syllabus Highlights
- 2 Review of Integration
- 3 Integration By Parts

Syllabus Highlights

Course Webpage:

<http://www.csulb.edu/~rblair/Math123F13/index.html>

Here you will find

- 1 Lecture slides
- 2 Course Calendar
- 3 A link to Webassign
- 4 A copy of the syllabus
- 5 A link to Beachboard (where your quiz, homework and test scores are posted)
- 6 Other useful links

Text

Required Text: Stewart, Essential Calculus: Early Transcendentals, Second Edition

Grading

- 1 20% Homework
- 2 20% Quizzes
- 3 15% Midterm 1
- 4 15% Midterm 2
- 5 30% Final

Homework

- 1 Online on WebAssign (<http://www.webassign.net/>)
- 2 Class key is csulb 5042 5720.
- 3 Access Code is sold with the text book package from the library.

Quiz

- 1 There will be 5 quizzes in discussion sessions.
- 2 Quiz questions will be based on previous homeworks and lectures.

Exams

Mark your calendars

- 1 Midterm 1: Sep. 26
- 2 Midterm 2: Nov. 7
- 3 Final: Dec. 12

Classroom Decorum:

- ① No Talking
- ② No Texting
- ③ Cellphone Ringers Off
- ④ Laptops and cell phones only used for class activities.

Adding the Course

Speak to me about adding the class after class.

Priority goes to those students that attended the discussion yesterday.

Space is limited.

Grading

Grades will be computed by the following absolute scale:

- 1 A 85 – 100%
- 2 B 70 – 85%
- 3 C 60 – 70%
- 4 D 50 – 60%
- 5 F 0 – 50%

Be Aware

- ① Accommodations because of a disability
- ② Help outside of class
- ③ Withdraw
- ④ Academic Integrity

Fundamental Theorem of Integration

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(Fundamental Theorem of Calculus, Part 2) If f is continuous on $[a, b]$, then

$$\int_a^b f(x)dx = F(b) - F(a)$$

Where F is any antiderivative of f , that is, a function such that $F' = f$.

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Examples: Evaluate $\int_0^1 x^2 + 1 dx$.

U-Substitution for definite integrals

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If $u = g(x)$ is a differentiable function and f is continuous, then

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Examples: Evaluate $\int_0^1 xe^{x^2} dx$.

Examples: Evaluate $\int \tan(x) dx$.

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Example: Find $\int \ln(x) dx$.