

**MATH 226**

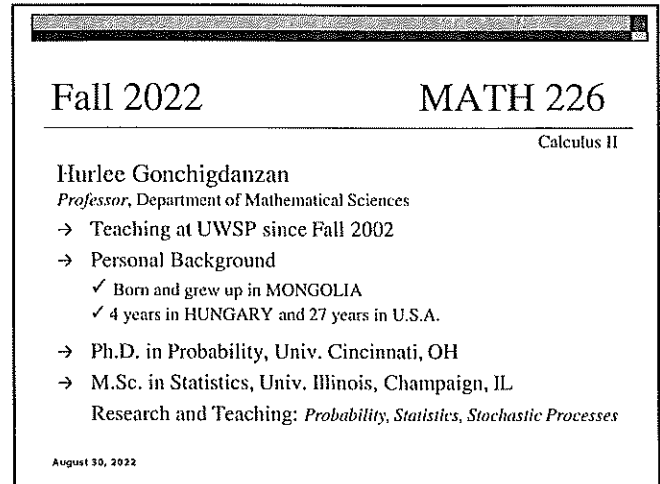
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Calculus II

- Section 1
- 1:00PM - 1:50PM

8/30/2022

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Fall 2022 MATH 226

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Calculus II

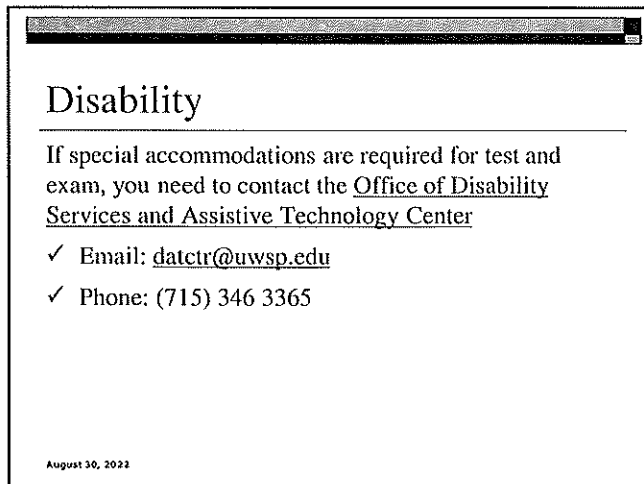
**Hurler Gonchigdanzan**  
*Professor, Department of Mathematical Sciences*

- Teaching at UWSP since Fall 2002
- Personal Background
  - ✓ Born and grew up in MONGOLIA
  - ✓ 4 years in HUNGARY and 27 years in U.S.A.
- Ph.D. in Probability, Univ. Cincinnati, OH
- M.Sc. in Statistics, Univ. Illinois, Champaign, IL

Research and Teaching: *Probability, Statistics, Stochastic Processes*

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**Disability**

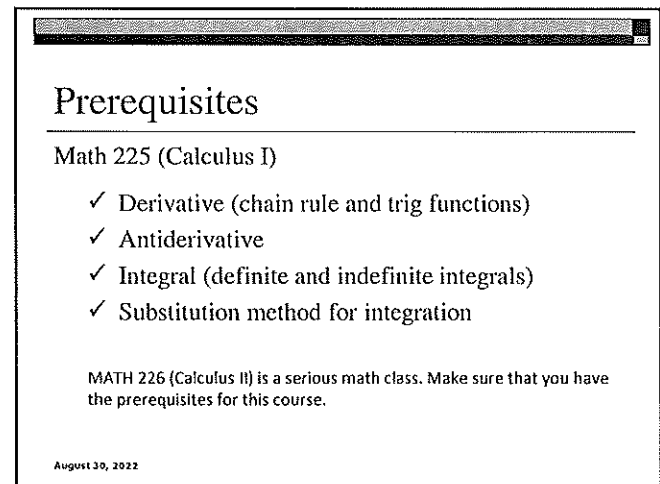
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If special accommodations are required for test and exam, you need to contact the Office of Disability Services and Assistive Technology Center

- ✓ Email: [datctr@uwsp.edu](mailto:datctr@uwsp.edu)
- ✓ Phone: (715) 346 3365

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**Prerequisites**

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Math 225 (Calculus I)

- ✓ Derivative (chain rule and trig functions)
- ✓ Antiderivative
- ✓ Integral (definite and indefinite integrals)
- ✓ Substitution method for integration

MATH 226 (Calculus II) is a serious math class. Make sure that you have the prerequisites for this course.

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## Course Goal

→ Learning and understanding basics and fundamentals of Calculus: Chapters 7-12

- ✓ Integration by parts
- ✓ Application of integration
- ✓ Differential equations
- ✓ Infinite sequences and series
- ✓ Vectors

→ Webpage: [CANVAS@UWSP](mailto:CANVAS@UWSP) for more details

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## Course Grade

→ HOMEWORK 15%  
→ 4 TESTS 60% (each test 15%)  
→ FINAL EXAM 25%

- ✓ Understanding the concept
- ✓ Proper notation and explanation using the context
- ✓ Correctness of the method and formula
- ✓ Accuracy and completeness
- ✓ NO work, NO credit !!!

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## Course Grade

☺ 93% ≤ A < 100%	☺ 87% ≤ B+ < 90%
☺ 90% ≤ A- < 93%	☺ 83% ≤ B < 87%
	☺ 80% ≤ B- < 83%
☺ 77% ≤ C+ < 80%	☺ 65% ≤ D+ < 70%
☺ 73% ≤ C < 77%	☺ 60% ≤ D < 65%
☺ 70% ≤ C- < 73%	☹ F < 60%

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## Homework

- ✓ Scan your work in PDF format. Use as many pages as needed
- ✓ Submit your work on CANVAS in a single PDF (one file, may have many pages)
- ✓ Late or missed HW regardless of the reason will be graded as 0.
- ✓ The lowest 3 assignments will be dropped.



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## Tests (in-person)

Dates will be announced a week before

- Test #1: Chapter 7
- Test #2: Chapter 8 & 9
- Test #3: Chapter 10 & 12
- Test #4: Chapter 11



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## Note Card for Formulas

- You may use ONE 3x5 note card on each test. However,
  - ✓ No sentences
  - ✓ No examples nor solutions to specific problem
  - ✓ May NOT share your formula card with others

Formula card is optional, so you will NOT be excused, in case you forget to bring your card or forget to write the formulas you need.

**BE RESPONSIBLE!!!**

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## Final Exam (online)

The final exam will be comprehensive

Q: How to prepare the Final?

A: Review all homework and test problems

Q: Is there a review class?

A: No. You review it first and ask questions if any



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## Office hours by appointment

- Tue and Thu: 9:30am – 10:50am
- Mon, Tue, Wed, Thu: 12:00pm – 12:50pm

Office: Room D349 Sci  
Email [hurlee@uwsp.edu](mailto:hurlee@uwsp.edu)

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## Calculator

- A scientific calculator will be necessary in this course.
- Graphing calculators such as TI-83 or TI-84 etc. are allowed
- Calculators that do symbolic calculations such as TI-84 Inspire CAS, TI-86, TI-89 and TI-92 may NOT be used.

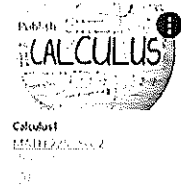
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## Class Webpage

### CANVAS@UWSP

- ✓ Syllabus
- ✓ Course Outline
- ✓ Lecture Notes
- ✓ Homework Assignments
- ✓ Calendar and Due Dates



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## In-Person Class



- ✓ No online or recorded lectures.
- ✓ Attendance is not mandatory but expected.
- ✓ It's your responsibility to read the textbook and catch up your missed classes.

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## Rights and Responsibilities

Student Academic Standards and Disciplinary Procedures, UWS/UWSP Chapter 14:  
[https://www.uwsp.edu/dos/Documents/2015\\_Aug\\_Community%20Rights%20and%20Responsibilities%20Web.pdf](https://www.uwsp.edu/dos/Documents/2015_Aug_Community%20Rights%20and%20Responsibilities%20Web.pdf)

The general Rights and Responsibilities:  
[https://www.uwsp.edu/dos/Documents/2015\\_Aug\\_Community%20Rights%20and%20Responsibilities%20Web.pdf](https://www.uwsp.edu/dos/Documents/2015_Aug_Community%20Rights%20and%20Responsibilities%20Web.pdf)

General Evacuation Procedures  
<http://www.uwsp.edu/rmgt/Pages/em/procedures/initial/general-evacuation.aspx>

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## Chapter 7 Techniques of Integration

- 7.1 Integration by Parts
  - 7.2 Trigonometric Integration
  - 7.3 Trigonometric Substitution
  - 7.4 Partial Fractions
  - 7.5 Strategy for Integration
  - 7.7 Approximate Integration (including Simpson's Rule)
  - 7.8 Improper Integrals
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### Test #1

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## Chapter 8 Further Applications of Integration

- 8.1 Arc Length
- 8.2 Area of a Surface of Revolution
- 8.3 Applications to Physics and Engineering
- 8.5 Probability

## Chapter 9 Differential Equations

- 9.1 Modeling with Differential Equations
  - 9.2 Direction Fields and Euler's Method
  - 9.3 Separable Equations
  - 9.4 Models for Population Growth (including the Logistic differential equation)
  - 9.5 Linear Equations
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### Test #2

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## Chapter 11 Infinite Sequences and Series

11.1 Sequences

11.2 Series

11.3 The Integral Test and Estimates of Sums

11.4 The Comparison Tests

11.5 Alternating Series

11.6 Absolute Convergence and the Ratio and Root Tests

11.8 Power Series

11.9 Representations of Functions as Power Series

11.10 Taylor and Maclaurin Series

11.11 Applications of Taylor Polynomials

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### Test #3

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## Chapter 10 Parametric Equations and Polar Coordinates

10.1 Parametric Equations

10.2 Calculus with Parametric Equations

10.3 Polar Coordinates

10.4 Areas and Lengths in Polar Coordinates

10.5 Conic Sections

## Chapter 12 Vectors and the Geometry of Space

12.1 Three Dimensional Coordinate Systems

12.2 Vectors

12.3 Dot Product

12.6 Cylinders and Quadratic Surfaces

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### Test #4

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