



# *Academic Notes*

May 21, 2012

AN 2011-2012

## **ACADEMIC NOTES PUBLICATION SCHEDULE** **SUMMER 2012**

Below is the publication schedule for *Academic Notes* through August 13, 2012. All submissions for inclusion in *Academic Notes* are due in the Office of Academic Affairs no later than 11:00 a.m. on the **Deadline for Items** date shown below. Submissions must be in hard copy along with an email, zip drive, or CD with the same information. The electronic version must be formatted either in Word with pages with signatures scanned and inserted as a picture OR PDF saved as text and image. (Do NOT send PDF just saved as an image.) Information submitted to *Academic Notes* that is not accompanied by an electronic version or that is incomplete or unusable will be returned to the appropriate office. *Academic Notes* is available using Acrobat Reader at [http://www.indstate.edu/academicaffairs/academic\\_notes.htm](http://www.indstate.edu/academicaffairs/academic_notes.htm). During the summer months, *Academic Notes* is published every other week. If you have questions or know of any discrepancies, please contact Yvonne Russell, Academic Affairs, extension 3662.

## **ACADEMIC NOTES PUBLICATION SCHEDULE** **SUMMER 2012**

<b><u>Deadline for Items</u></b>	<b><u>Issue Date</u></b>
May 23	June 4
June 6	June 18
June 20	July 2
July 4	July 16
July 18	July 30
August 1	August 13

# CURRICULUM

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## UNDERGRADUATE PROPOSALS

### COURSE REVISIONS

#### COLLEGE OF ARTS AND SCIENCES: Music

##### **MUS 460 - Arranging for Band**

2 credits

The technical and tonal resources of band instruments, with practical exercises in scoring.

**Prerequisites:** MUS 260 or consent of instructor.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change description and prerequisites to:*

##### **MUS 460 - Arranging for Band**

2 credits

Scoring for orchestral instruments: strings, woodwinds, brass, and percussion; score analysis and realization.

**Prerequisites:** MUS 260.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

## GRADUATE PROPOSALS

### COURSE REVISIONS

#### COLLEGE OF ARTS AND SCIENCES: Music

##### **MUS 560 - Arranging for Band**

2 credits

The technical and tonal resources of band instruments, with practical exercises in scoring.

**Prerequisites:** satisfactory score on the Graduate Placement Examination in Music Theory or successful completion of 601.

*Change description to:*

##### **MUS 560 - Arranging for Band**

2 credits

Scoring for orchestral instruments: strings, woodwinds, brass, and percussion; score analysis and realization.

**Prerequisites:** Satisfactory score on the Graduate Placement Examination in Music Theory or successful completion of 601.

A-F Grading

*Effective term: Spring 2013*

## UNDERGRADUATE APPROVALS

### COURSE REVISIONS

#### COLLEGE OF ARTS AND SCIENCES: Languages, Literatures, and Linguistics

##### **SPAN 487 - Spanish Postwar Theater**

3 credits

The focus of this course is the plays of the Spanish postwar period, with emphasis on Buero, Sastre, A. Casona, Garcia Lorca, Alfonso Paso, and Ana Diosdado.

**Prerequisites:** SPAN 301; 303, or 312A, or 312B, or equivalent.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature

*Change title and description to:*

##### **SPAN 487 – Modern Spanish Theater**

3 credits

This course examines the main dramatic trends and playwrights of the 20<sup>th</sup>- and 21<sup>st</sup>-century Spanish Peninsular Theater.

**Prerequisites:** SPAN 301; 303, or 312A, or 312B, or equivalent.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

## **COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science**

### **MATH 122 - Analytic Geometry**

3 credits

Coordinate geometry of two dimensions including conic sections, families of equations and their graphs, polar coordinates, and higher order plane curves.

**Prerequisites:** Appropriate placement examination score or MATH 112 and 115.

*Change prerequisites to:*

### **MATH 122 - Analytic Geometry**

3 credits

Coordinate geometry of two dimensions including conic sections, families of equations and their graphs, polar coordinates, and higher order plane curves.

**Prerequisites:** Appropriate placement examination score or a grade of C or better in MATH 112 and 115.

A-F Grading

*Effective term: Spring 2013*

### **MATH 131 - Calculus I**

4 credits

#### **Link**

(This course is part of the “Transfer Indiana” [TransferIN] initiative. For additional information, link to [www.transferin.net/ctl](http://www.transferin.net/ctl).)

The course will cover topics including: limits, continuity, differentiation, anti-derivates, the definite integral, the fundamental theorem of integral calculus, and applications.

**Prerequisites:** MATH 112 and 115 or appropriate placement examination score.

*Change prerequisites to:*

### **MATH 131 - Calculus I**

4 credits

#### **Link**

(This course is part of the “Transfer Indiana” [TransferIN] initiative. For additional information, link to [www.transferin.net/ctl](http://www.transferin.net/ctl).)

The course will cover topics including: limits, continuity, differentiation, anti-derivates, the definite integral, the fundamental theorem of integral calculus, and applications.

**Prerequisites:** A grade of C or better in MATH 112 and 115 or appropriate placement examination score.

A-F Grading

*Effective term: Spring 2013*

### **MATH 132 - Calculus II**

4 credits

#### **Link**

(This course is part of the “Transfer Indiana” [TransferIN] initiative. For additional information, link to [www.transferin.net/ctl](http://www.transferin.net/ctl).)

Transcendental functions, applications, and techniques of integration, indeterminate forms, sequences, infinite series.

**Prerequisites:** MATH 131.

*Change prerequisites to:*

### **MATH 132 - Calculus II**

4 credits

#### **Link**

(This course is part of the “Transfer Indiana” [TransferIN] initiative. For additional information, link to [www.transferin.net/ctl](http://www.transferin.net/ctl).)

Transcendental functions, applications, and techniques of integration, indeterminate forms, sequences, infinite series.

**Prerequisites:** A grade of C or better in MATH 131.

A-F Grading

*Effective term: Spring 2013*

### **MATH 231 - Calculus III**

4 credits

Vectors in 2- and 3-space, vector-valued functions, differentiation and integration of functions of several variables, line integrals, Green’s Theorem.

**Prerequisites:** MATH 132.

*Change prerequisites to:*

### **MATH 231 - Calculus III**

4 credits

Vectors in 2- and 3-space, vector-valued functions, differentiation and integration of functions of several variables, line integrals, Green’s Theorem.

**Prerequisites:** A grade of C or better in MATH 132.

A-F Grading

*Effective term: Spring 2013*

### **MATH 320 - Discrete Mathematics**

3 credits

Sets, relations, and functions; elementary methods of logic; combinatorial methods; recurrence relations; graphs and digraphs; Boolean algebra.

**Prerequisites:** a programming language, and MATH 131 or 301.

**Note:** Required for computer science majors.

*Change prerequisites to:*

### **MATH 320 - Discrete Mathematics**

3 credits

Sets, relations, and functions; elementary methods of logic; combinatorial methods; recurrence

relations; graphs and digraphs; Boolean algebra.

**Prerequisites:** A programming language, and a grade of C or better in MATH 131 or 301.

A-F Grading

*Effective term: Spring 2013*

### **MATH 333 - Differential Equations**

3 credits

First order equations, exact equations, higher order equations, power series methods, variation of parameters, systems of equations, Laplace transform, existence, and uniqueness of solutions.

**Prerequisites:** MATH 231.

*Change prerequisites to:*

### **MATH 333 - Differential Equations**

3 credits

First order equations, exact equations, higher order equations, power series methods, variation of parameters, systems of equations, Laplace transform, existence, and uniqueness of solutions.

**Prerequisites:** A grade of C or better in MATH 231.

A-F Grading

*Effective term: Spring 2013*

### **MATH 380 - Introduction to Abstract Mathematics**

3 credits

Set theory, relations and functions, equivalence relations, cardinality, and other topics encountered in modern abstract mathematics. Emphasis on enhancing the student's ability to read, write, and understand proofs.

**Prerequisites:** MATH 132 or consent of instructor.

*Change prerequisites to:*

### **MATH 380 - Introduction to Abstract Mathematics**

3 credits

Set theory, relations and functions, equivalence relations, cardinality, and other topics encountered in modern abstract mathematics. Emphasis on enhancing the student's ability to read, write, and understand proofs.

**Prerequisites:** A grade of C or better in MATH 132.

A-F Grading

*Effective term: Spring 2013*

### **MATH 410 - Introduction to Analysis**

3 credits

The real number system as a complete ordered field. Functions of a single real variable, continuity, differentiability, uniform continuity.

**Prerequisites:** MATH 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

### **MATH 410 - Introduction to Analysis**

3 credits

The real number system as a complete ordered field. Functions of a single real variable, continuity, differentiability, uniform continuity.

**Prerequisites:** A grade of C or better in MATH 231 and MATH 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

### **MATH 412 - Abstract Algebra**

3 credits

An introduction to groups, rings, and fields, including polynomial rings, divisibility, and unique factorization domains.

**Prerequisites:** MATH 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

### **MATH 412 - Abstract Algebra**

3 credits

An introduction to groups, rings, and fields, including polynomial rings, divisibility, and unique factorization domains.

**Prerequisites:** A grade of C or better in MATH 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

### **MATH 413 - Linear Algebra I**

3 credits

Systems of linear equations, vector spaces, basic properties of matrices and determinants, linear transformations on a vector space, and eigenvectors and eigenvalues.

**Prerequisites:** MATH 380 or 412.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

### **MATH 413 - Linear Algebra I**

3 credits

Systems of linear equations, vector spaces, basic properties of matrices and determinants, linear transformations on a vector space, and eigenvectors and eigenvalues.

**Prerequisites:** A grade of C or better in MATH 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

### **MATH 430 - Real Variables I**

3 credits

Integration and differentiation in metric spaces through additive set functions. Applications to probability.

**Prerequisites:** MATH 410 or consent of instructor.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

**MATH 430 - Real Variables I**

3 credits

Integration and differentiation in metric spaces through additive set functions. Applications to probability.

**Prerequisites:** A grade of C or better in MATH 410.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

**MATH 431 - Complex Variables I**

3 credits

The theory of functions of complex variables. Properties of complex numbers, analytic functions and their power series expansions, singularities, and integral theorems.

**Prerequisites:** MATH 410 or consent of instructor.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

**MATH 431 - Complex Variables I**

3 credits

The theory of functions of complex variables. Properties of complex numbers, analytic functions and their power series expansions, singularities, and integral theorems.

**Prerequisites:** A grade of C or better in MATH 410.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

**MATH 435 - Vector Analysis**

3 credits

Introduction to vector and inner-product spaces. Differential and integral calculus in three-dimensional Euclidean space.

**Prerequisites:** MATH 410 or consent of instructor.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

**MATH 435 - Vector Analysis**

3 credits

Introduction to vector and inner-product spaces. Differential and integral calculus in three-dimensional Euclidean space.

**Prerequisites:** A grade of C or better in MATH 410.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading



*Effective term: Spring 2013*

**MATH 441 - Theory of Probability**

4 credits

The formulation of probability problems in a mathematical manner and the techniques for their solution.

**Prerequisites:** MATH 231, 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

**MATH 441 - Theory of Probability**

4 credits

The formulation of probability problems in a mathematical manner and the techniques for their solution.

**Prerequisites:** A grade of C or better in MATH 231 and MATH 380.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

**MATH 442 - Mathematical Statistics**

4 credits

Estimation, hypothesis testing, correlation and regression, statistical design, and nonparametric methods.

**Prerequisites:** MATH 441.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

*Change prerequisites to:*

**MATH 442 - Mathematical Statistics**

4 credits

Estimation, hypothesis testing, correlation and regression, statistical design, and nonparametric methods.

**Prerequisites:** A grade of C or better in MATH 441.

**Note:** Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

*Effective term: Spring 2013*

## **GRADUATE APPROVALS**

### **COURSE REVISIONS**

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Sastre, A. Casona, Garcia Lorca, Alfonso Paso, and Ana Diosdado.

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**SPAN 587 – Modern Spanish Theater**

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