

Graduate Council Agenda  
Graduate School Conference Room 603  
April 26, 2013 at 1:00 pm

Present: Drs. Sustich, Schmidt, Kemp, Owen, Gilbert, Koizumi, Welsh, Milligan,  
Srivatsan, Roe (Jones), Drake, McKay, McLean and Ms. Terrell, Finch and Tamanathan

1. New Program/Concentration
  - Ph.D. in Literacy Studies **TABLED**
  - Master of Music in Collaborative Piano Performance **APPROVED**
2. New Courses
  - BIO 5033 Bioinformatics and Applications **APPROVED**
  - BIO 5053 Applications in Biotechnology **APPROVED**
  - BIO 5063 Biosafety and Ethics in Research **APPROVED**
  - BIO 5152 Laboratory in BioTechniques I **APPROVED**
  - BIO 5154 Laboratory in BioTechniques II **APPROVED**
  - CS 5943 Robotics Application Programming **APPROVED**
  - LTST 8223 History and Philosophy **TABLED**
  - LTST 8353 Adult Family and Community Literacy **TABLED**
  - LTST 8413 Human Empowerment **TABLED**
  - LTST 8533 Literacy within Political Social Economic Contexts **TABLED**
  - LTST 8643 Advanced Literacy Research **TABLED**
  - MUSP 5151 Collaborative Piano **APPROVED**
  - POSC 6013 Advanced Political Analysis **APPROVED**
  - POSC 6243 Political Violence **APPROVED**
  - POSC 6653 MPA Capstone Experience **APPROVED**
  - POSC 6643 Nonprofit management **APPROVED**
3. Course Deletions
  - BIO 6033 Biosafety and Ethics in Research **APPROVED**
  - BIO 6103 Genetic Engineering **APPROVED**
  - BIO 6133 Bioinformatics and Applications **APPROVED**
  - BIO 6144 Laboratory in BioTechniques **APPROVED**
  - BIO 6154 Laboratory in BioTechniques II **APPROVED**
  - POSC 6323 Revolutions and Foreign Policy **APPROVED**
4. Bulletin Changes
  - MA POSC program change **APPROVED**
  - MIS concentration change **APPROVED**
  - MPA bulletin change **APPROVED**
  - MPA online & traditional bulletin change **APPROVED**
  - POSC 6003 Techniques of Political and Public bulletin change **APPROVED**
  - PT 7623 Bulletin Change **APPROVED**
  - PT Bulletin Change **APPROVED**

Code # **New Emphasis/Concentration or Option Proposal-Bulletin Change Transmittal Form**☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

**New Certificate or Degree Program** (The following critical elements are taken directly from the Arkansas Department of Higher Education's "Criteria and Procedures for Preparing Proposals for New Programs".) Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary..

 ENTER DATE...
**Department Curriculum Committee Chair**
 ENTER DATE...
**Department Chair:**
 ENTER DATE...
**College Curriculum Committee Chair**
 ENTER DATE...
**College Dean**
 ENTER DATE...
**COPE Chair (if applicable)**
 ENTER DATE...
**General Education Committee Chair (If applicable)**
 ENTER DATE...
**Undergraduate Curriculum Council Chair**
 ENTER DATE...
**Graduate Curriculum Committee Chair**
 ENTER DATE...
**Vice Chancellor for Academic Affairs****1. Proposed Program Title**

Master of Music in Collaborative Piano Performance

**2. CIP Code Requested****3. Contact Person** (Name, Email Address, Phone Number)Dr. Lauren Schack Clark, [lsclark@astate.edu](mailto:lsclark@astate.edu), 870-680-8029**4. Proposed Starting Date**

8/19/2013

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**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

**To copy from the bulletin:**

1. Minimize this form.
2. Go to <http://registrar.astate.edu/bulletin.htm> and choose either undergraduate or graduate.
3. This will take you to a list of the bulletins by year, please open the most current bulletin.
4. Find the page(s) you wish to copy, click on the "select" button and highlight the pages you want to copy.
5. Right-click on the highlighted area.
6. Click on "copy".
7. Minimize the bulletin and maximize this page.
8. Right-click immediately below this area and choose "paste".
9. For additions to the bulletin, please change font color and make the font size larger than the surrounding text. Make it noticeable.
10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

**FROM 2012-2013 GRADUATE BULLETIN,**

**P. 187-189**

**MASTER OF MUSIC DEGREE**

**Admission Requirements**

Applicants seeking admission to the Master of Music degree program must take the ASU Department of Music entrance examinations in music history and written and aural music theory. The results of this examination assist in planning each student's exact course of study. A grade of "A" or "B" must be achieved in any remedial coursework. Remedial coursework may not be counted as credit toward the degree. Arkansas State University graduates who begin graduate studies within eighteen months of graduation will not be required to take the entrance examination providing they received an "A" or "B" on all undergraduate music theory and history coursework. Students seeking admission to the Master of Music in Performance with an emphasis in Instrumental or Vocal Performance must audition for the appropriate applied faculty member prior to initial enrollment. At the discretion of the applied faculty member a three to five member committee may be convened to hear the audition. The applied faculty member (or committee) will evaluate the performance and report the results to the Graduate Program Supervisor. All graduate instrumental and vocal performance students are required

to perform a proficiency jury at the end of the first semester of applied study. Students will receive written comments from the jury panel.

Students seeking admission to the Master of Music in Performance with an emphasis in Instrumental or Choral Conducting must submit a videotape or DVD to the appropriate applied conducting faculty member prior to initial enrollment, or conduct two pieces in live audition. At the discretion of the applied faculty member, a three to five member committee may be convened to evaluate the videotape or live audition. Contents of the videotape or DVD should include two or more numbers of contrasting styles with a total time of no less than eight minutes. The video should be a front view of the conductor, not the ensemble. The conducting faculty (or committee) will evaluate the videotape and report the results to the Graduate Program Supervisor.

**Courses required of all candidates:**

MUS 6212, Introduction to Research, Writing, and Bibliography in Music

MUS 6222, teaching and Learning Music

**Performance Major, Instrumental or Vocal:**

One Hour Graduate Recital\*

Eight Hours Applied Major

Three Hours Large Ensembles

Six Hours Music History (6000 level)

Six Hours Music Theory (Must be at 6000 level)

Two Hours Pedagogy

Languages for Voice and Keyboard Major

The Master of Music degree in performance requires language proficiency as follows:

Majors in voice must demonstrate reading proficiency in two foreign languages, and majors in keyboard instruments in one foreign language. French and/or German are the recommended languages.

\*\*Piano and guitar majors are required three hours of large ensembles and/or advised electives.

**Collaborative Piano Major:**

Six Hours Applied Lessons

Four Hours Graduate Collaborative Piano

One Hour Graduate Recital

Four Hours Pedagogy

Six Hours Music History

Three Hours Music Theory

**Piano Pedagogy Major:**

Eight Hours Applied Lessons

One Hour Graduate Recital

Six Hours Pedagogy

Six Hours Music History

Three Hours Music Theory

Two Hours Advised Electives

**Composition Major:**

Eight Hours Applied Composition

Three Hours Applied Electronic Music Techniques, MUSP 6111-2

Six Hours Music Theory

One Hour Graduate Recital\*

Six Hours Music History Electives

Two Hours Pedagogy

**Conducting Major:**

Eight Hours Applied Conducting

One Hour Graduate Recital\*

Two Hours Pedagogy and Performance

Six Hours Music History (6000 level)

Three Hours Advised Ensembles and Electives

**Minimum hours required for these programs: 30**

\*All students pursuing the Master of Music Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document **may be obtained from the Graduate Program Supervisor in the Music Department.**

**FROM 2012-2013 GRADUATE BULLETIN,**

**P. 194**

#### **Performance Courses**

**MUSP 5151? Graduate Collaborative Piano** For advanced pianists. Permission of instructor required. May be repeated for credit. One hour credit. One hour class per week, combination of master class/lecture. Five hours practice required. Students who are enrolled in 1 credit hour of Applied Music courses will be assessed a \$35.00 special course fee. The maximum special course fee for students enrolled in 2 or more credit hours of Applied Music is \$55.00. Demand.

**MUSP 6111-4 Performance** (may be repeated for credit).

**MUSP 6111-2 Applied Electronic Music Techniques** (may be repeated for credit).

**MUSP 6111-4 Applied Conducting** (may be repeated for credit). Maximum of three semester hours of Applied Conducting may be applied toward the Master of Music Education degree.

**MUSP 6121-2 Pedagogy and Performance** The study of the literature and pedagogical techniques as related to performance. (may be repeated for credit).

**MUS 6131 Graduate Recital** A full length formal recital with an accompanying scholarly document.

#### **Ensembles-Choral and Instrumental**

**MUS 6141 Small Ensemble** (may be repeated for credit).

**MUS 6222 Teaching and Learning Music** Students will explore the combined

academic fields of psychology, sociology, teaching methods, motivation, and developmental aspects within learning music. Students will benefit learning how music performance can be enhanced through understanding how people learn music.

**MUS 6311 Wind Ensemble**

**MUS 6321 Symphonic Band**

**MUS 6331 Marching Band**

**MUS 6341 Jazz Ensemble**

**MUS 6351 Concert Choir**

**MUS 6361 University Singers**

**MUS 6471 Opera Production** A course in the study and performance of selected opera literature. Emphasis placed on directing and production.

**MUS 6481 Orchestra**

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## LETTER OF NOTIFICATION – 3

### NEW OPTION, CONCENTRATION, EMPHASIS

(Maximum 18 semester credit hours of new theory courses and 6 credit hours of new practicum courses)

1. Institution submitting request:

Arkansas State University – Jonesboro

2. Contact person/title:

Dr. Lauren Schack Clark, Associate Professor of Music

3. Phone number/e-mail address:

870-680-8029

4. Proposed effective date:

8/19/2013

5. Title of degree program:

Master of Music in Piano Performance

6. CIP Code:

Enter text...

7. Degree Code:

Enter text...

8. Proposed option/concentration/emphasis name:

Master of Music in Collaborative Piano Performance

9. Reason for proposed action:

Intensive study and performance of major collaborative works for voice and instruments, and honing practical skills in these areas. It will encourage students to apply for the proposed Master of Music Concentration in Collaborative Piano, thus aiding recruiting. It will also provide service to the instrumental and vocal areas of the department.

10. New option/concentration/emphasis objective

Students will gain proficiency in the performance of collaborative piano music from the vocal and instrumental genres. They will explore issues of repertoire, performance practice, rehearsal techniques, and balance issues, and gain experience through in-class performances and critiques.

11. Provide the following:

a. Curriculum outline - List of required courses

<b><i>Current MM in Piano Performance</i></b>	<b><i>Proposed MM in Collaborative Piano Performance</i></b>
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<i>Introduction to Research</i>	<i>Introduction to Research</i>
<i>Teaching and Learning Music</i>	<i>Teaching and Learning Music</i>
<i>One Hour Grad Recital</i>	<i>One Hour Grad Recital. May include repertoire from both solo and collaborative literature, or just collaborative literature.</i>
<i>Eight Hours Applied Major</i>	<i>Eight Hours Applied Major, plus Four Hours Graduate Collaborative Piano (new course)**</i>
<i>Two Hours Music Ensembles</i>	<i>Piano Pedagogy, MUED 5642 (2 hours)</i>
<i>Six Hours Music History (6000 level)*</i>	<i>Six Hours Music History (6000 level)*</i>
<i>Three Hours Music Theory (6000 level)*</i>	<i>Three Hours Music Theory (6000 level)*</i>
<i>One Hour Pedagogy (MUSP 6121, Pedagogy and Performance)</i>	<i>Two Hours 612X Pedagogy and Performance – Diction or Pedagogy and Performance – Piano (for those who have passed Diction exam or have already taken equivalent already)</i>
<i>Two Hours advised electives</i>	---
<i>Languages</i>	<i>Languages</i>
<b>Total credit hours: 30*</b>	<b>Total credit hours: 30*</b>

\*assuming student has passed all proficiency exams and language requirements.

#### b. New course descriptions

##### **MUSP 5151? Collaborative Piano**

Master class/lecture in Collaborative Piano Techniques. For advanced pianists. Permission of instructor required. May be repeated for credit. One hour class per week. Five hours practice required. Students who are enrolled in 1 credit hour of Applied Music courses will be assessed a \$35.00 special course fee. The maximum special course fee for students enrolled in 2 or more credit hours of Applied Music is \$55.00. Demand.

#### c. Program goals and objectives

Intensive study and performance of major collaborative works for voice and instruments, and honing practical skills in these areas. It will encourage students to apply for the proposed Master of Music Concentration in Collaborative Piano, thus aiding recruiting. It will also provide service to the instrumental and vocal areas of the department.

#### d. Expected student learning outcomes

##### **Primary Goal Outcome #1:**

Intensive study and performance of major collaborative works for voice and instruments, and honing practical skills in these areas. It will also provide service to the instrumental and vocal areas of the department.

**Learning Activity:** (For example, what instructional processes do you plan to use to help students reach this outcome?)

In-Class performances with critiques, lectures, written work

**Assessment Tool:** (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)

Critiques of performances during class time, final performance at end of semester, grading of written work.

12. Will the new option be offered via distance delivery?

No

13. Mode of delivery to be used:

Classroom

14. Explain in detail the distance delivery procedures to be used:

Enter text...

15. Is the degree approved for distance delivery?

No

16. List courses in option/concentration/emphasis. Include course descriptions for new courses.

<b>Current MM in Piano Performance</b>	<b>Proposed MM in Collaborative Piano Performance</b>
<i>Introduction to Research</i>	<i>Introduction to Research</i>
<i>Teaching and Learning Music</i>	<i>Teaching and Learning Music</i>
<i>One Hour Grad Recital</i>	<i>One Hour Grad Recital. May include repertoire from both solo and collaborative literature, or just collaborative literature.</i>
<i>Eight Hours Applied Major</i>	<i>Eight Hours Applied Major, plus Four Hours Graduate Collaborative Piano (new course)**</i>
<i>Two Hours Music Ensembles</i>	<i>Piano Pedagogy, MUED 5642 (2 hours)</i>
<i>Six Hours Music History (6000 level)*</i>	<i>Six Hours Music History (6000 level)*</i>
<i>Three Hours Music Theory (6000 level)*</i>	<i>Three Hours Music Theory (6000 level)*</i>
<i>One Hour Pedagogy (MUSP 6121, Pedagogy and Performance)</i>	<i>Two Hours 612X Pedagogy and Performance – Diction or Pedagogy and Performance – Piano (for those who have passed Diction exam or have already taken equivalent already)</i>
<i>Two Hours advised electives</i>	---
<i>Languages</i>	<i>Languages</i>
<b>Total credit hours: 30*</b>	<b>Total credit hours: 30*</b>

\*assuming student has passed all proficiency exams and language requirements.

Piano Literature requirements: For the Master of Music in Piano Performance, the Master of Music in Piano Performance and Pedagogy, and the new concentration, Master of Music in Collaborative Piano Performance, the entering student will take a

*proficiency exam in Piano Literature, or show evidence that he/she has taken an equivalent course already. Those who do not pass the exam will be required to take Piano Literature, MUS 5223.*

**\*\*MUSP 5151? Collaborative Piano**

Master class/lecture in Collaborative Piano Techniques. For advanced pianists. Permission of instructor required. May be repeated for credit. One hour class per week. Five hours practice required. Students who are enrolled in 1 credit hour of Applied Music courses will be assessed a \$35.00 special course fee. The maximum special course fee for students enrolled in 2 or more credit hours of Applied Music is \$55.00. Demand.

17. Specify the amount of the additional costs required, the source of funds, and how funds will be used.

No additional costs required

**President/Chancellor Approval Date:**

**Board of Trustees Notification Date:**

	ENTER DATE...
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**Vice Chancellor for Academic Affairs**

## LETTER OF NOTIFICATION – 3

### NEW OPTION, CONCENTRATION, EMPHASIS

(Maximum 18 semester credit hours of new theory courses and 6 credit hours of new practicum courses)

1. Institution submitting request: *Arkansas State University-Jonesboro*
2. Contact person/title: *Dr. Lauren Schack Clark, Associate Professor of Music*
3. Phone number/e-mail address: *870-680-8029, lsclark@astate.edu*
4. Proposed effective date: *Fall 2013*
5. Title of degree program: *Master of Music in Collaborative Piano Performance*
6. CIP Code:
7. Degree Code:
8. Proposed option/concentration/emphasis name: *Master of Music in Performance*
9. Reason for proposed action:

*The purpose of the program is to provide students with a degree that is recognized in a positive light by other institutions and employers. It will emphasize the art of collaborative piano, or performance of music for piano and at least one other instrument or voice, as opposed to solo piano performance. This will make graduates marketable to musical organizations and for careers in higher education.*

10. New option/concentration/emphasis objective:

*The degree will be the only one of its kind in the state. It will require all the coursework of the current MM in Piano Performance degree, plus the addition of a course in Graduate Collaborative Piano, which may be repeated for credit.*

11. Provide the following:
  - a. List of required courses See No. 16.
  - b. New course descriptions

#### **MUSP 5151? Collaborative Piano**

For advanced pianists. Permission of instructor required. May be repeated for credit. One hour credit. One hour class per week, combination of master class/lecture. Five hours practice required. Students who are enrolled in 1 credit hour of Applied Music courses will be assessed a \$35.00 special course fee. The maximum special course fee for students enrolled in 2 or more credit hours of Applied Music is \$55.00. Demand.

- c. Program goals and objectives See No. 9.
  - d. Expected student learning outcomes See No. 9 and 10
12. Will the new option be offered via distance delivery? *No.*
13. Mode of delivery to be used: *Classroom, live performance*

14.Explain in detail the distance delivery procedures to be used:

15.Is the degree approved for distance delivery? No.

16.List courses in option/concentration/emphasis. Include course descriptions for new courses.  
*See No. 11 for new course descriptions.*

<b>Current MM in Piano Performance</b>	<b>Proposed MM in Collaborative Piano Performance</b>
<i>Introduction to Research</i>	<i>Introduction to Research</i>
<i>Teaching and Learning Music</i>	<i>Teaching and Learning Music</i>
<i>One Hour Grad Recital</i>	<i>One Hour Grad Recital. May include repertoire from both solo and collaborative literature, or just collaborative literature.</i>
<i>Eight Hours Applied Major</i>	<i>Eight Hours Applied Major, plus Four Hours Graduate Collaborative Piano (new course)</i>
<i>Two Hours Music Ensembles</i>	<i>Piano Pedagogy, MUED 5642 (2 hours)</i>
<i>Six Hours Music History (6000 level)*</i>	<i>Six Hours Music History (6000 level)*</i>
<i>Three Hours Music Theory (6000 level)*</i>	<i>Three Hours Music Theory (6000 level)*</i>
<i>One Hour Pedagogy (MUSP 6121, Pedagogy and Performance)</i>	<i>Two Hours 612X Pedagogy and Performance – Diction or Pedagogy and Performance – Piano (for those who have passed Diction exam or have taken equivalent already)</i>
<i>Two Hours advised electives</i>	<i>---</i>
<i>Languages</i>	<i>Languages</i>
<b>Total credit hours: 30*</b>	<b>Total credit hours: 30*</b>

*\*assuming student has passed all proficiency exams and language requirements.*

*Piano Literature requirements:* *For the Master of Music in Piano Performance, the Master of Music in Piano Performance and Pedagogy, and the new concentration, Master of Music in Collaborative Piano Performance, the entering student will take a proficiency exam in Piano Literature, or show evidence that he/she has taken an equivalent course already. Those who do not pass the exam will be required to take Piano Literature, MUS 5223.*

17.Specify the amount of the additional costs required, the source of funds, and how funds will be used. *No additional costs required.*

Board of Trustees Approval Date:  
Chief Academic Officer

Date:

Code # 

# New/Special Course Proposal-Bulletin Change Transmittal Form

☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course** (Check one box)

*Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.*

ENTER DATE...

**Department Curriculum Committee Chair**

ENTER DATE...

**COPE Chair (if applicable)**

ENTER DATE...

**Department Chair:**

ENTER DATE...

**General Education Committee Chair (If applicable)**

ENTER DATE...

**College Curriculum Committee Chair**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)

BIO 5033

2. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Bioinformatics and Applications

3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lecture and lab

4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

Standard letter

5. Is this course dual listed (undergraduate/graduate)?

Yes

6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

7. Brief course description (40 words or fewer) as it should appear in the bulletin.

Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use of biological data sources to analyze nucleotide/amino acid sequences and three-dimensional atomic structures of proteins, nucleic acids, allowing interpretation of biological processes. Prerequisites: BIO 3013 or permission of instructor.

8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

a. Are there any prerequisites?

BIO 3013 or equivalent course that provides a good understanding of nucleic acids, proteins, transcription and translation

b. Why?

Genetics provides foundational content needed for this course to build upon.

9. Course frequency (e.g. Fall, Spring, Summer). Not applicable to Graduate courses.

Spring

10. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

11. Proposed Starting Term/Year

Spring 2015

12. Is this course in support of a new program? Yes

If yes, what program?

BS Biotechnology

13. Does this course replace a course being deleted? Yes

If yes, what course?

BIO 6133

Has this course number been used in the past? No

*Submit Course Deletion Proposal-Bulletin Change Transmittal Form.*

14. Does this course affect another program? Yes

If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.

John Pratte, Dean of College of Science and Mathematics, Thomas Risch, Chair of Department of Biological Sciences

15. Justification should include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

1. ACADEMIC RATIONALE Biotechnology, a rapidly evolving field requires the use of bioinformatics tools for its applications. Knowledge of bioinformatics help the biotechnologist to (i) identify and understand the various data bases, (ii) obtain nucleic acids and protein sequences from data bases, (iii) align the sequence of molecule with unknown function to those with known functions in order to predict function, (iv) identify functional domains, (v) understand molecular evolution, (vi) make proper sequence constructs for gene expression studies, (vii) understand genomics and comparative genomics. Therefore a thorough understanding of the basics of bioinformatics is essential for students of biotechnology so that they will use the right tools for the appropriate applications in an optimal way.

## 2. GOALS OF THE COURSE

To provide the basic understanding, appropriate training and guidance to students so that they will be able to:

- explain the underlying principle in sequence and structure analyses of DNA and proteins
- access various data bases and perform pattern search, alignment of sequences, similarity searching, phylogenies, gene expression profiling and clustering expressed genes.
- access databases for genomes to understand genomics, single nucleotide polymorphism, mutations and associated disorders.
- perform comparison of proteins via their amino acid sequences and their three-dimensional structures, structure prediction via simple comparative modeling, predicting the structure and function of a protein from knowledge of its amino acid sequence.
- engage in critical thinking, choose and use the appropriate bioinformatic tool to help in their research, and understand the interdisciplinary nature of this field

b. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

This course fits well with the goals of Department of Biological Sciences as the "Department's graduate program embraces a broad range of topics from global to local, from general to specific and from highly interdisciplinary to very particular" (<http://biology.astate.edu/ProspectGrad.htm>)



The emphasis area in the PSM Biotechnology degree requires 26 hours of selectives. This is one of those selective courses. This is a required course for the proposed BS Biotechnology program. The MS and MA programs in Biology have 20 and 23 hours of electives, respectively. Addition of this much sought after course will help meet these requirements for our graduate students.

c. Student population served.

Undergraduate and graduate students of Biotechnology programs and Biological Sciences, Molecular biosciences and Environmental Sciences graduate programs

d. Rationale for the level of the course (lower, upper, or graduate).

The understanding and use of bioinformatics tools require a solid foundation of the understanding of transcription, translation, structure and function of nucleic acids as well as proteins. Further the diverse databases and computational tools involved in bioinformatics require a mature approach to the understanding of the subject. Hence upper level undergraduate and graduate students will benefit maximally from this course.

16. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

- 1 Introduction, pre-test
  - 2 Access to sequence data and literature information
  - 3 Pairwise Sequence Alignment
  - 4 Basic Local Alignment Search Tool (BLAST)
  - 5 Advanced BLAST Searching
  - 6 Bioinformatic Approaches to Gene Expression
  - 7 Gene Expression: Microarray Data Analysis.
  - 8 Protein Structure/ Protein Analysis and Proteomics
  - 9 Multiple Sequence Alignment/ Molecular Phylogeny and Evolution
  - 10 Completed Genomes and the Tree of Life.
  - 11 Eukaryotic Genomes: From Parasites to Primates
  - 12 Human genome and human disease
  - 13 Presentations
- Post test

17. Course requirements (e.g. research papers, projects, interviews, tests, etc.)

There will be 12 Assignments requiring the use of data bases and tools towards 60 % of the grade. Each assignment is worth 10 points and the twelve assignments are worth a total of 120 points. Assignments need to be completed and turned in by the respective deadline. 1 Oral presentation (towards 20% of the grade) is worth 40 points. Assignments and topics for the presentation will be posted on the course blackboard site. 1 Final report (towards 20% of the grade) is worth 40 points). Graduate students will be required to write a paper on the history of DNA barcoding in terms of technical and computational procedures. Assignments include: an outline, an annotated bibliography, a first and final draft of the paper.

18. Special features (e.g. labs, exhibits, site visitations, etc.)

This course will employ extensive computer applications

19. Department staffing and classroom/lab resources (Will this require additional faculty, supplies, etc.?)

This course will be taught by existing faculty within the Department of Biological Sciences.

20. What is the primary intended learning goal for students enrolled in this course?

This course is designed to provide students an introduction to computing applications in biotechnology, and begin the process of student understanding analytical processes in genomics.

21. Reading and writing requirements:

a. Name of book, author, edition, company and year

Bioinformatics and Functional Genomics, Jonathan Pevsner, 2<sup>nd</sup> ed., Wiley-Blackwell, 2009.

b. Number of pages of reading required per week: 30

c. Number of pages of writing required over the course of the semester: 20

22. High-Impact Activities (Check all that apply)

- ☒ Collaborative assignments
- ☐ Research with a faculty member
- ☒ Diversity/Global learning experience
- ☐ Service learning or community learning
- ☐ Study abroad
- ☐ Internship
- ☐ Capstone or senior culminating experience
- ☒ Other                      Explain: Learning by doing; application oriented, interdisciplinary learning

23. Considering the indicated primary goal (in Box #20), provide up to three outcomes that you expect of students after completion of this course.

**Outcome #1:** (For example, what will students who meet this goal know or be able to do as a result of this course?)

Students will learn how to search available bioinformatics databases and interpret their search results.

**Learning Activity:** (For example, what instructional processes do you plan to use to help students reach this outcome?)

Students will be taught about the various data bases, how to access them, how to perform custom searches, and how to interpret the scoring of the results. They will be provided with step by step instructions for sample searches and they will perform this in the class. Then they will use this knowledge in performing searches for their assignments.

Assessment Tool: (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)  
The assignments will be graded and performance will be discussed by providing input for improvement.

*(Repeat if needed for additional outcomes 2 and 3)*

**Outcome #2:**

Students will learn to read and understand microarray analysis data available in the public domain. This will enable them to learn about changes that occur in several genes during a disease process since microarray analysis usually involves analysis of expression of several thousand genes in a tissue sample

**Learning Activity:**

After a discussion about microarray experiments and analysis, students will be given step by step instructions to access microarray data sets of actual experiments performed by scientists in normal and disease tissues. They will be guided to identify clusters of genes whose expression is upregulated or down regulated because of the disease.

**Assessment Tool:**

For their assignment, students will use the available data set provided by the instructor, and perform clustering of genes based on the reported expression levels. This assignment will be graded to evaluate if the students have understood the process of analysis and interpretation.

**Outcome #3:**

Students will learn about the relatedness of organisms based on how the sequence of a single protein has changed/unchanged in organisms belonging to different species. Students will select a particular protein at the beginning of the course and work with this protein in every exercise to learn how each bioinformatics tool is helping them to understand the different aspect of this protein.

**Learning Activity:**

Following the discussion of multiple sequence alignment, students will be guided through multiple sequence alignment following instructions. Then they will use this alignment to construct a phylogenetic tree based on the relatedness of the sequences for their assignment which will be graded. Also students will write a final report on the protein they chose in the beginning of the course based on the results of each of their assignment. Each student will also make a presentation on the nature and use of a data base. They will be given a rubric to help them prepare their powerpoint presentations.

**Assessment Tool:**

The final report and powerpoint presentations will be graded

24. Please indicate the extent to which this course addresses university-level student learning outcomes:

a. Global Awareness

- ☐ Minimally
- ☐ Indirectly
- ☒ Directly

b. Thinking Critically

- ☐ Minimally
- ☐ Indirectly

☒ Directly

c. Using Technology

☐ Minimally

☒ Indirectly

☒ Directly

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**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

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4. Find the page(s) you wish to copy, click on the "select" button and highlight the pages you want to copy.
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6. Click on "copy".
7. Minimize the bulletin and maximize this page.
8. Right-click immediately below this area and choose "paste".
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10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

**GRADUATE BULLETIN PAGES 283-284**

**DEPARTMENT OF BIOLOGICAL SCIENCES**

For each laboratory course taken, both the lecture and laboratory portions must be passed before credit for graduation is assigned.

**Biology**

**BIO 5001 Laboratory Techniques in Electron Microscopy** An introduction to the preparation of biological materials for viewing with the transmission-and-scanning electron microscope. Emphasis will be placed on preparative techniques that are commonly used in the laboratory. Lecture one hour per week. Prerequisites: eight hours upper-level biology coursework and permission of professor.

**BIO 5003 Laboratory for Laboratory Techniques in Electron Microscopy** Six hours per week. To be taken concurrently with BIO 5001. (Course fee, \$20)

**BIO 5033 Bioinformatics and Applications** Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use biological data sources to analyze nucleotide amino acid sequences and three dimensional atomic structures of proteins, nucleic acids allowing interpretations of biological processes. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5053 Applications in Biotechnology** Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013.

**BIO 5063 Biosafety and Ethics in Research** Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5104 Microbiology** Morphology, physiology, taxonomy, and cultivation of bacteria and other microorganisms with an emphasis on medically relevant bacteria. Two hours of lecture and four hours of lab per week.

**BIO 5152 Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Prerequisites, BIO 3013. (Course fee, \$100)

**BIO 5154 Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Prerequisites, BIO 4152. (Course fee, \$100)

**BIO 5201 Laboratory for Issues in Human Ecology** Two hours per week. To be taken concurrently with BIO 5202. (Course fee, \$20)

Code # 

# New/Special Course Proposal-Bulletin Change Transmittal Form

☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course** (Check one box)

*Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.*

ENTER DATE...

**Department Curriculum Committee Chair**

ENTER DATE...

**COPE Chair (if applicable)**

ENTER DATE...

**Department Chair:**

ENTER DATE...

**General Education Committee Chair (If applicable)**

ENTER DATE...

**College Curriculum Committee Chair**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)

BIO 5053

2. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Applications in Biotechnology

3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lecture only

4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

Standard letter

5. Is this course dual listed (undergraduate/graduate)?

Yes

6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

7. Brief course description (40 words or fewer) as it should appear in the bulletin.

Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013. .

8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

a. Are there any prerequisites?

BIO 3013

b. Why?

Genetics provides foundational content needed for this course to build upon.

9. Course frequency (e.g. Fall, Spring, Summer). Not applicable to Graduate courses.

Spring

10. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

11. Proposed Starting Term/Year

Spring 2015

12. Is this course in support of a new program? Yes

If yes, what program?

BS Biotechnology

13. Does this course replace a course being deleted? Yes

If yes, what course?

BIO 6103

Has this course number been used in the past? No

*Submit Course Deletion Proposal-Bulletin Change Transmittal Form.*

14. Does this course affect another program? Yes

If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.  
John Pratte, Dean of College of Science and Mathematics, Thomas Risch, Chair of Department of Biological Sciences

15. Justification should include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

1. ACADEMIC RATIONALE Biotechnology is a field that is evolving rapidly, with tools and applications developed that society is ill prepared to evaluate or regulate. This applications course allows for students to investigate current and future uses of biotechnology in commercial and research settings.

## 2. GOALS OF THE COURSE

Upon completing this course students will be able to:

- a. describe basic molecular techniques and their applications in the biological sciences to produce and detect recombinant molecules.
- b. describe basic techniques and applications of PCR technologies
- c. describe basic techniques and applications of bioinformatics
- d. describe basic techniques and applications of Spectroscopy
- e. describe basic techniques and applications of protein analyses and expression products

b. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

This course fits well with the goals of Department of Biological Sciences as the "Department's graduate program embraces a broad range of topics from global to local, from general to specific and from highly interdisciplinary to very particular" (<http://biology.astate.edu/ProspectGrad.htm>)

The emphasis area in the PSM Biotechnology degree requires 26 hours of selectives. This is one of those selective courses. This is a required course for the proposed BS Biotechnology program. The MS and MA programs in Biology have 20 and 23 hours of electives, respectively. Addition of this much sought after course will help meet these requirements for our graduate students.

c. Student population served.

Undergraduate and graduate students of Biotechnology programs and Biological Sciences and Environmental Sciences graduate programs

d. Rationale for the level of the course (lower, upper, or graduate).



Students entering the field of biotechnology require a solid foundation of the technical and application aspects of the field. The diverse tools and technology involved in Biotechnology require a mature approach to the understanding of the subject. Hence upper level undergraduate and graduate students will benefit maximally from this course.

16. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

Week 1	Introduction to Genetic Engineering (G.E.)
Week 2	G.E. Enzymes & methods of analysis
Week 3	Host cells & vectors
Week 4	Cloning strategies and polymerase chain reaction
Week 5	Bioinformatics (information on internet for biochemists, literature & data searches, visualization of molecular structures, etc)
Week 6	Understanding gene structure & function
Week 7	Understanding genomes and otheromes
Week 8	G.E & Biotechnology:
Week 9	Protein Engineering (Enzyme kinetics, ligand binding, methods of analysis)
Week 10	Medical & Forensic Applications
Week 11	Transgenic plants and animals
Week 12	Tools used in analyses
Week 13	Class powerpoint presentations

17. Course requirements (e.g. research papers, projects, interviews, tests, etc.)

Class participation will be 10% of the grade (including presentations); Comprehensive Final will be 15% of grade; Tests with be 15% each of the grade (4x15=60%); Pop quizzes may be given & will be 0-5% of the grade). Graduate students will be required to write a paper on the development of the procedures involved in the production of a specific transgenic plant or animal (15%). Assignments include: an outline, an annotated bibliography, a first and final draft of the paper.

18. Special features (e.g. labs, exhibits, site visitations, etc.)

None.

19. Department staffing and classroom/lab resources (Will this require additional faculty, supplies, etc.?)

This course will be taught by existing faculty within the Department of Biological Sciences.

20. What is the primary intended learning goal for students enrolled in this course?

This course is designed to provide students a detailed understanding of basic molecular techniques used in the biological sciences to produce and detect recombinant molecules, in addition to expression products from those recombined molecules.

21. Reading and writing requirements:

a. Name of book, author, edition, company and year

**Principles of Gene Manipulation and Genomics. S.B. Primrose and R.M. Twyman. 2010. 8th edition. Blackwell Publishing. Paperback ISBN.**

b. Number of pages of reading required per week: 20

c. Number of pages of writing required over the course of the semester: 20

22. High-Impact Activities (Check all that apply)

- ☐ Collaborative assignments
- ☐ Research with a faculty member
- ☒ Diversity/Global learning experience
- ☐ Service learning or community learning
- ☐ Study abroad
- ☐ Internship
- ☐ Capstone or senior culminating experience
- ☐ Other Explain:

23. Considering the indicated primary goal (in Box #20), provide up to three outcomes that you expect of students after completion of this course.

**Outcome #1:** (For example, what will students who meet this goal know or be able to do as a result of this course?)  
Students will demonstrate an understanding of recombinant systems.

Learning Activity: (For example, what instructional processes do you plan to use to help students reach this outcome?)  
Students will develop their own presentation of a specific recombinant product which has been marketed in the pharmaceutical or agribusiness industries.

Assessment Tool: (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)  
A rubric will be developed for the evaluation of the powerpoint developed.

*(Repeat if needed for additional outcomes 2 and 3)*

**Outcome #2:**

Learning Activity:

Assessment Tool:

Enter text...

**Outcome #3:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

24. Please indicate the extent to which this course addresses university-level student learning outcomes:

a. Global Awareness

- ☐ Minimally
- ☐ Indirectly
- ☒ Directly

b. Thinking Critically

- ☐ Minimally
- ☐ Indirectly
- ☒ Directly

c. Using Technology

- ☐ Minimally
- ☒ Indirectly
- ☐ Directly

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## GRADUATE BULLETIN PAGES 283-284

### DEPARTMENT OF BIOLOGICAL SCIENCES

For each laboratory course taken, both the lecture and laboratory portions must be passed before credit for graduation is assigned.

#### Biology

**BIO 5001 Laboratory Techniques in Electron Microscopy** An introduction to the preparation of biological materials for viewing with the transmission-and-scanning electron microscope. Emphasis will be placed on preparative techniques that are commonly used in the laboratory. Lecture one hour per week. Prerequisites: eight hours upper-level biology coursework and permission of professor.

**BIO 5003 Laboratory for Laboratory Techniques in Electron Microscopy** Six hours per week. To be taken concurrently with BIO 5001. (Course fee, \$20)

**BIO 5033 Bioinformatics and Applications** Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use biological data sources to analyze nucleotide amino acid sequences and three dimensional atomic structures of proteins, nucleic acids allowing interpretations of biological processes. Lecture three hours per week. Prerequisites, BIO 3013. Spring.

**BIO 5053 Applications in Biotechnology** Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013. Spring.

**BIO 5063 Biosafety and Ethics in Research** Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 3013. Fall.

**BIO 5104 Microbiology** Morphology, physiology, taxonomy, and cultivation of bacteria and other microorganisms with an emphasis on medically relevant bacteria. Two hours of lecture and four hours of lab per week.

**BIO 5152 Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Prerequisites, BIO 3013. (Course fee, \$100)

**BIO 5154 Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Prerequisites, BIO 4152. (Course fee, \$100)

**BIO 5201 Laboratory for Issues in Human Ecology** Two hours per week. To be taken concurrently with BIO 5202. (Course fee, \$20)

Code # 

# New/Special Course Proposal-Bulletin Change Transmittal Form

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☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course** (Check one box)

*Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.*

ENTER DATE...

**Department Curriculum Committee Chair**

ENTER DATE...

**COPE Chair (if applicable)**

ENTER DATE...

**Department Chair:**

ENTER DATE...

**General Education Committee Chair (If applicable)**

ENTER DATE...

**College Curriculum Committee Chair**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)

BIO5063

2. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Biosafety and Ethics in Research

3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lecture only

4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

Standard letter

5. Is this course dual listed (undergraduate/graduate)?

Yes

6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

7. Brief course description (40 words or fewer) as it should appear in the bulletin.

Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 2013

8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

a. Are there any prerequisites?

BIO 3013

b. Why?

Genetics provides foundational content needed for this course to build upon.

9. Course frequency (e.g. Fall, Spring, Summer). Not applicable to Graduate courses.

Fall

10. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

11. Proposed Starting Term/Year

Fall 2014

12. Is this course in support of a new program? Yes

If yes, what program?

## BS Biotechnology

13. Does this course replace a course being deleted? Yes

If yes, what course?

BIO 6033

Has this course number been used in the past? No

*Submit Course Deletion Proposal-Bulletin Change Transmittal Form.*

14. Does this course affect another program? Yes

If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.  
John Pratte, Dean of College of Science and Mathematics, Thomas Risch, Chair of Department of Biological Sciences

15. Justification should include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

1. ACADEMIC RATIONALE Biotechnology is a field that is evolving rapidly, with tools and applications developed that society is ill prepared to evaluate or regulate. A sound foundation in ethics and the issues facing professionals in the field is provided in this course. Professionals must understand not only their own discipline but the social and legal setting as they relate to that discipline. Additionally, biotechnology is the underlying girder behind many business companies; this course provides students the opportunity to develop a better understanding of the 'scene behind the scene' of biotechnology. Most science students are poorly prepared or have little interest in the business often driving the decision-making in our technology-based companies.

## 2. GOALS OF THE COURSE

Upon completing this course students will be able to:

explain the historical framework of biotechnology regulation and ethical issues

explain the legal regulation over basic biotechnology processes

understand the definition of intellectual property and begin the process of licensing a patent

discuss the principles of bio- and chemical safety

b. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

This course fits well with the goals of Department of Biological Sciences as the "Department's graduate program embraces a broad range of topics from global to local, from general to specific and from highly interdisciplinary to very particular" (<http://biology.astate.edu/ProspectGrad.htm>)

The emphasis area in the PSM Biotechnology degree requires 26 hours of selectives. This is one of those selective courses. This is a required course for the proposed BS Biotechnology program. The MS and MA programs in Biology have 20 and 23 hours of electives, respectively. Addition of this much sought after course will help meet these requirements for our graduate students.

c. Student population served.

Undergraduate and graduate students of Biotechnology programs and Biological Sciences and Environmental Sciences graduate programs

d. Rationale for the level of the course (lower, upper, or graduate).

Students entering the field of biotechnology require a solid foundation of the techniques of the field. The diverse tools and technology involved in Biotechnology require a mature approach to the understanding of the subject. Hence upper level undergraduate and graduate students will benefit maximally from this course.

16. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

- 1 Introduction to biotechnology: Definition of terms and concepts  
The basics of genetic material and genetic engineering; extrinsic vs. intrinsic objections
- 2 Radiation and chemical safety
- 3 Radiation and chemical safety (cont'd.)
- 4 Safe handling and disposal of GMOs
- 5 Ethical decision-making- processes and goals.
- 6 History of ethical impacts on biotechnology research
- 7 Regulatory agencies and their roles  
Levels of regulation and enforcement
- 8 Biotechnology applications and their safety risks
- 9 Biotechnology; Arguments for and against patenting in biotechnology
- 10 Introduction to patent law
- 11 Intellectual property rights vs world-wide needs- ethical issues
- 12 Ethical research of animals and humans
- 13 Ethics in biotechnology and the media
- 14 Ethics and academic honesty

FINAL

17. Course requirements (e.g. research papers, projects, interviews, tests, etc.)

There will be two take home exams with each worth 20% of the overall grade. The remainder of the grade will be determined with the completion of two assignments, the development of an outline for a hypothetical patent (15%), and a position paper on an ethical issue current in biotechnology (15%), the completion of the radiation safety exam by the FDA (5%), and classroom participation (10%). Graduate students will be required to write



a paper on a controversial genetically engineered product, discussing the pros and cons of the application of that product on a commercial level. Assignments include: an outline, an annotated bibliography, a first and final draft of the paper (15%).

18. Special features (e.g. labs, exhibits, site visitations, etc.)

This course will use a radiation safety training program developed by the Food and Drug Administration. Guest lectures will be provided by professionals in the field.

19. Department staffing and classroom/lab resources (Will this require additional faculty, supplies, etc.?)

This course will be taught by existing faculty within the Department of Biological Sciences.

20. What is the primary intended learning goal for students enrolled in this course?

This course is designed to provide students an introduction to ethical decision-making and processes, in addition to some of the ethical and safety issues they will be exposed to in this field. Additionally, the concepts of intellectual property and the ethics involved within this arena will be introduced.

21. Reading and writing requirements:

a. Name of book, author, edition, company and year

**Ethical Issues in Biotechnology by J.D. Morrey.**

**Additional Reading:**

**Radiation Safety software by the FDA "Basic Radiation Training" program will be utilized.**

**In addition journal articles relevant to topic of discussion will be provided from time to time.**

b. Number of pages of reading required per week: 30

c. Number of pages of writing required over the course of the semester: 20

22. High-Impact Activities (Check all that apply)

- ☐ Collaborative assignments
- ☐ Research with a faculty member
- ☒ Diversity/Global learning experience
- ☐ Service learning or community learning
- ☐ Study abroad
- ☐ Internship
- ☐ Capstone or senior culminating experience
- ☐ Other Explain:

23. Considering the indicated primary goal (in Box #20), provide up to three outcomes that you expect of students after completion of this course.

**Outcome #1:** (For example, what will students who meet this goal know or be able to do as a result of this course?)

Students will learn how to research available patents.

Learning Activity: (For example, what instructional processes do you plan to use to help students reach this outcome?)

Students will develop their own outline of a patent which they envision. They must first research to determine if theirs is an original idea rather than a copy of another's work.

Assessment Tool: (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)

A rubric will be developed for the evaluation of the patent developed and the assignment regarding a controversial issue in this field.

*(Repeat if needed for additional outcomes 2 and 3)*

**Outcome #2:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

**Outcome #3:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

24. Please indicate the extent to which this course addresses university-level student learning outcomes:

a. Global Awareness

☐ Minimally

☐ Indirectly

☒ Directly

b. Thinking Critically

☐ Minimally

☐ Indirectly

☒ Directly

c. Using Technology

- ☐ Minimally
- ☒ Indirectly
- ☐ Directly

---

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**GRADUATE BULLETIN PAGES 283-284**

**DEPARTMENT OF BIOLOGICAL SCIENCES**

For each laboratory course taken, both the lecture and laboratory portions must be passed before credit for graduation is assigned.

**Biology**

**BIO 5001 Laboratory Techniques in Electron Microscopy** An introduction to the preparation of biological materials for viewing with the transmission-and-scanning electron microscope. Emphasis will be placed on preparative techniques that are commonly used in the laboratory. Lecture one hour per week. Prerequisites: eight hours upper-level biology coursework and permission of professor.

**BIO 5003 Laboratory for Laboratory Techniques in Electron Microscopy** Six hours per week. To be taken concurrently with BIO 5001. (Course fee, \$20)

**BIO 5033 Bioinformatics and Applications** Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use biological data sources to analyze nucleotide amino acid sequences and three dimensional atomic structures of proteins, nucleic acids allowing interpretations of biological processes. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5053 Applications in Biotechnology** Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013.

**BIO 5063 Biosafety and Ethics in Research** Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5104 Microbiology** Morphology, physiology, taxonomy, and cultivation of bacteria and other microorganisms with an emphasis on medically relevant bacteria. Two hours of lecture and four hours of lab per week.

**BIO 5152 Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Prerequisites, BIO 3013. (Course fee, \$100.)

**BIO 5154 Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Prerequisites, BIO 4152. Fall. (Course fee, \$100.)

**BIO 5201 Laboratory for Issues in Human Ecology** Two hours per week. To be taken concurrently with BIO 5202. (Course fee, \$20)

Code # 

# New/Special Course Proposal-Bulletin Change Transmittal Form

☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course** (Check one box)

*Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.*

ENTER DATE...

**Department Curriculum Committee Chair**

ENTER DATE...

**COPE Chair (if applicable)**

ENTER DATE...

**Department Chair:**

ENTER DATE...

**General Education Committee Chair (If applicable)**

ENTER DATE...

**College Curriculum Committee Chair**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)

BIO 5152

2. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Laboratory in BioTechniques I

3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lab only

4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

Standard letter

5. Is this course dual listed (undergraduate/graduate)?

Yes

6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

7. Brief course description (40 words or fewer) as it should appear in the bulletin.

Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Prerequisites, BIO 3013. (Course fee, \$100.)

8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

a. Are there any prerequisites?

BIO 3013

b. Why?

Genetics provides foundational knowledge and skills needed for this techniques course.

9. Course frequency (e.g. Fall, Spring, Summer). Not applicable to Graduate courses.

Spring

10. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

11. Proposed Starting Term/Year

Spring 2014

12. Is this course in support of a new program? no  
If yes, what program?

13. Does this course replace a course being deleted? Yes  
If yes, what course?  
BIO 6144

Has this course number been used in the past? No  
*Submit Course Deletion Proposal-Bulletin Change Transmittal Form.*

14. Does this course affect another program? Yes  
If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.  
John Pratte, Dean of College of Science and Mathematics, Thomas Risch, Chair of Department of Biological Sciences

15. Justification should include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

1. ACADEMIC RATIONALE There is an increasing need for professionals trained in the specific laboratory skills required for employment by molecular biology and biotechnology intensive companies. Few programs exist nationally to supply the need for these professionals, and none in Arkansas. This laboratory course is central to the training of students in this emphasis area of Biotechnology. Biotechnology is a hands-on field, which is constantly changing. This course will equip students with the foundations of the laboratory experience; as the field evolves the students will have the background necessary to adapt to those changes.

2. GOALS OF THE COURSE Upon completing this course students should be able to:

- Demonstrate good laboratory practice.
- Be proficient in preparing buffers and making dilutions
- Be proficient in protein analytical techniques and understand the theory behind differing protocols
- Be proficient in blotting protocols
- Maintain an effective laboratory journal
- Effectively design and implement an experiment

b. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

This course fits well with the goals of Department of Biological Sciences as the "Department's graduate program embraces a broad range of topics from global to local, from general to specific and from highly interdisciplinary to very particular" (<http://biology.astate.edu/ProspectGrad.htm>)

The emphasis area in the PSM Biotechnology degree requires 26 hours of selectives. This is one of those selective courses. This is a required course for the proposed BS Biotechnology program. The MS and MA programs in Biology have 20 and 23 hours of electives, respectively. Addition of this much sought after course will help meet these requirements for our graduate students.

c. Student population served.

Undergraduate and graduate students of Biotechnology programs and Biological Sciences and Environmental Sciences graduate programs

d. Rationale for the level of the course (lower, upper, or graduate).

Students entering the field of biotechnology require a solid foundation of the techniques of the field. The diverse tools and technology involved in Biotechnology require a mature approach to the understanding of the subject. Hence upper level undergraduate and graduate students will benefit maximally from this course.

16. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

- |       |                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------|
| 1     | Laboratory preparation for experiments                                                                |
| 2     | Review lab etiquette & procedures                                                                     |
| 3-4   | Preparation of buffers and reagents                                                                   |
| 5     | Introduce Pichia expression system                                                                    |
| 6     | Induce protein in yeast and set up a protein assay to demonstrate the presence of the induced protein |
| 7     | Grow & Induce Yeast, perform protein, enzyme assays and SDS PAGE                                      |
| 8-9   | Introduce protein purification step(chromatography, HPLC, Maldi-Tof MS)                               |
| 10-11 | Perform Affinity Column Chromatography & Wblots                                                       |
| 12    | Rerun Affinity Column Chromatography & Western blots                                                  |
| 13    | Western blot Demo; cleanup & Final                                                                    |

17. Course requirements (e.g. research papers, projects, interviews, tests, etc.)

**Class participation** will be **25%** of the grade

**Comprehensive Final** will be **20%** of the grade

**Laboratory journals** will be graded as **20%** of the grade

**Tests** will be **20%** of the grade

**Pop quizzes** may be given & will be **0-5%** of the grade

Graduate students will be required to perform an independent experiment in the area of protein chemistry will be **15%** of the grade.

18. Special features (e.g. labs, exhibits, site visitations, etc.)

None

19. Department staffing and classroom/lab resources (Will this require additional faculty, supplies, etc.?)

This course will be team-taught by existing faculty within the Department of Biological Sciences. The laboratory in LSE 302 is presently a multi-user facility for research in molecular biology, and houses equipment for protein isolation and



electrophoresis, and will be used for laboratory instruction. Imaging equipment is also available.

20. What is the primary intended learning goal for students enrolled in this course?

This laboratory course is designed to provide students the laboratory skills and principles both to succeed in the short term in the research/job setting and to adapt to ongoing technological changes.

21. Reading and writing requirements:

a. Name of book, author, edition, company and year

**Guide to Protein Purification, Second Edition (Methods in Enzymology)** Richard R Burgess (Editor), Murray P. Deutscher (Editor) 2009. Academic Press Paperback ISBN 978-0-12-374978-9

b. Number of pages of reading required per week: 40

c. Number of pages of writing required over the course of the semester: 30

22. High-Impact Activities (Check all that apply)

- ☒ Collaborative assignments
- ☐ Research with a faculty member
- ☐ Diversity/Global learning experience
- ☐ Service learning or community learning
- ☐ Study abroad
- ☐ Internship
- ☐ Capstone or senior culminating experience
- ☐ Other Explain:

23. Considering the indicated primary goal (in Box #20), provide up to three outcomes that you expect of students after completion of this course.

**Outcome #1:** (For example, what will students who meet this goal know or be able to do as a result of this course?)

Students should have extensive knowledge within the field of protein chemistry and expression products, the knowledge of protein structure and function and be able to use this knowledge in both research and development work. Students should also develop the theoretical and practical knowledge of how biotechnological projects are planned, controlled and completed

Learning Activity: (For example, what instructional processes do you plan to use to help students reach this outcome?)

This laboratory focused on protein chemistry and expression products will be intensive over Spring semester to immerse the students in the skills required to reach the outcomes above.

Assessment Tool: (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)

A rubric will be developed for the evaluation of the laboratory experimental design and outcomes, in addition to laboratory journals submitted.

*(Repeat if needed for additional outcomes 2 and 3)*

**Outcome #2:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

**Outcome #3:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

24. Please indicate the extent to which this course addresses university-level student learning outcomes:

a. Global Awareness

- ☐ Minimally  
☒ Indirectly  
☐ Directly

b. Thinking Critically

- ☐ Minimally  
☐ Indirectly  
☒ Directly

c. Using Technology

- ☐ Minimally  
☐ Indirectly  
☒ Directly

---

**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

**To copy from the bulletin:**

1. Minimize this form.
2. Go to <http://registrar.astate.edu/bulletin.htm> and choose either undergraduate or graduate.
3. This will take you to a list of the bulletins by year, please open the most current bulletin.
4. Find the page(s) you wish to copy, click on the "select" button and highlight the pages you want to copy.
5. Right-click on the highlighted area.
6. Click on "copy".
7. Minimize the bulletin and maximize this page.

8. Right-click immediately below this area and choose "paste".
9. For additions to the bulletin, please change font color and make the font size larger than the surrounding text. Make it noticeable.
10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

## GRADUATE BULLETIN PAGES 283-284

### DEPARTMENT OF BIOLOGICAL SCIENCES

For each laboratory course taken, both the lecture and laboratory portions must be passed before credit for graduation is assigned.

#### Biology

**BIO 5001 Laboratory Techniques in Electron Microscopy** An introduction to the preparation of biological materials for viewing with the transmission-and-scanning electron microscope. Emphasis will be placed on preparative techniques that are commonly used in the laboratory. Lecture one hour per week. Prerequisites: eight hours upper-level biology coursework and permission of professor.

**BIO 5003 Laboratory for Laboratory Techniques in Electron Microscopy** Six hours per week. To be taken concurrently with BIO 5001. (Course fee, \$20)

**BIO 5033 Bioinformatics and Applications** Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use biological data sources to analyze nucleotide amino acid sequences and three dimensional atomic structures of proteins, nucleic acids allowing interpretations of biological processes. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5053 Applications in Biotechnology** Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013.

**BIO 5063 Biosafety and Ethics in Research** Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5104 Microbiology** Morphology, physiology, taxonomy, and cultivation of bac- teria and other microorganisms with an emphasis on medically relevant bacteria. Two hours of lecture and four hours of lab per week.

**BIO 5152 Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Prerequisites, BIO 3013. (Course fee, \$100)

**BIO 5154 Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Prerequisites, BIO 4152. (Course fee, \$100)

**BIO 5201 Laboratory for Issues in Human Ecology** Two hours per week. To be taken concurrently with BIO 5202. (Course fee, \$20)

Code # 

## New/Special Course Proposal-Bulletin Change Transmittal Form

☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.

☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course** (Check one box)

*Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.*

ENTER DATE...

**Department Curriculum Committee Chair**

ENTER DATE...

**Department Chair:**

ENTER DATE...

**College Curriculum Committee Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**COPE Chair (if applicable)**

ENTER DATE...

**General Education Committee Chair (If applicable)**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)

BIO 5154

2. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Laboratory in BioTechniques II

3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lab only

4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

Standard letter

5. Is this course dual listed (undergraduate/graduate)?

Yes

6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

No

7. Brief course description (40 words or fewer) as it should appear in the bulletin.

Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week.

Prerequisites, BIO 5152. (Course fee, \$100.)

8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

a. Are there any prerequisites?

BIO 5152

b. Why?

Laboratory in Biotechniques I provides foundational skills needed for this techniques course.

9. Course frequency (e.g. Fall, Spring, Summer). Not applicable to Graduate courses.

Fall

10. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

11. Proposed Starting Term/Year

Fall 2014

12. Is this course in support of a new program? No  
If yes, what program?

13. Does this course replace a course being deleted? Yes  
If yes, what course?  
BIO 6154

Has this course number been used in the past? No  
*Submit Course Deletion Proposal-Bulletin Change Transmittal Form.*

14. Does this course affect another program? Yes  
If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.  
John Pratte, Dean of College of Science and Mathematics, Thomas Risch, Chair of Department of Biological Sciences

15. Justification should include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

1. ACADEMIC RATIONALE There is an increasing need for professionals trained in the specific laboratory skills required for employment by molecular biology and biotechnology intensive companies. Few programs exist nationally to supply the need for these professionals, and none in Arkansas. This laboratory course is central to the training of students in this emphasis area of Biotechnology. Biotechnology is a hands-on field, which is constantly changing. This course will equip students with the foundations of the laboratory experience; as the field evolves the students will have the background necessary to adapt to those changes.

2. GOALS OF THE COURSE Upon completing this course students should be able to:

- Demonstrate good laboratory practice.
- Be proficient in polymerase chain reaction techniques
- Be proficient in tissue culturing of plants and animal cells
- Be familiar with introducing foreign DNAs into plants
- Be proficient with isolating gene expression products
- Maintain an effective laboratory journal

b. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

This course fits well with the goals of Department of Biological Sciences as the "Department's graduate program embraces a broad range of topics from global to local, from general to specific and from highly interdisciplinary to very particular" (<http://biology.astate.edu/ProspectGrad.htm>)

The emphasis area in the PSM Biotechnology degree requires 26 hours of selectives. This is one of those selective courses. This is a required course for the proposed BS Biotechnology program. The MS and MA programs in Biology have 20 and 23 hours of electives, respectively. Addition of this much sought after course will help meet these requirements for our graduate students.

c. Student population served.

Undergraduate and graduate students of Biotechnology programs and Biological Sciences and Environmental Sciences graduate programs

d. Rationale for the level of the course (lower, upper, or graduate).

Students entering the field of biotechnology require a solid foundation of the techniques of the field. The diverse tools and technology involved in Biotechnology require a mature approach to the understanding of the subject. Hence upper level undergraduate and graduate students will benefit maximally from this course.

16. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

- |       |                                                                                                                             |
|-------|-----------------------------------------------------------------------------------------------------------------------------|
| 1     | Laboratory preparation for experiments                                                                                      |
| 2-3   | Restriction digestion and mapping of plasmids                                                                               |
| 4-6   | PCR techniques, RT-PCR                                                                                                      |
| 7     | Prepare <i>E.coli</i> and in silico cloning experiments                                                                     |
| 8     | DNA for cloning including strategy preparation with restriction enzymes                                                     |
| 8-9   | Transformation of DNA into <i>E.coli</i> , amplification and purification of recombinant plasmids, and sequencing reactions |
| 10    | Introduction to Gateway cloning and transformation into yeast                                                               |
| 11-12 | Transgenic methods in plants                                                                                                |
| 13    | Expression products in plants                                                                                               |

17. Course requirements (e.g. research papers, projects, interviews, tests, etc.)

**Class participation** will be **15%** of the grade

**Comprehensive Final** will be **20%** of the grade

**Laboratory journals** will be graded as **25%** of the grade

**Tests** will be **25%** of the grade

**Pop quizzes** may be given & will be **0-5%** of the grade

Graduate students will be required to perform an independent experiment in the area of yeast transformation which count as **15%** of the grade.

18. Special features (e.g. labs, exhibits, site visitations, etc.)

None

19. Department staffing and classroom/lab resources (Will this require additional faculty, supplies, etc.?)

This course will be team-taught by existing faculty within the Department of Biological Sciences. The laboratory in LSE 302 is presently a multi-user facility for research in molecular biology, and houses equipment for DNA isolation, electrophoresis, and cloning, and will be used for laboratory instruction. Imaging equipment is also available.

20. What is the primary intended learning goal for students enrolled in this course?

This laboratory course is designed to provide students the laboratory skills and principles both to succeed in the short term in the research/job setting and to adapt to ongoing technological changes.

21. Reading and writing requirements:

a. Name of book, author, edition, company and year

**Molecular Cloning: A Laboratory Manual by Sambrook, Joseph, 3rd Edition, ISBN13:9780879695767, Pub. Date: 1/1/2001, Cold Spring Harbor Laboratory Press**

b. Number of pages of reading required per week: 20

c. Number of pages of writing required over the course of the semester: 30

22. High-Impact Activities (Check all that apply)

- ☒ Collaborative assignments
- ☐ Research with a faculty member
- ☐ Diversity/Global learning experience
- ☐ Service learning or community learning
- ☐ Study abroad
- ☐ Internship
- ☐ Capstone or senior culminating experience
- ☐ Other Explain:

23. Considering the indicated primary goal (in Box #20), provide up to three outcomes that you expect of students after completion of this course.

**Outcome #1:** (For example, what will students who meet this goal know or be able to do as a result of this course?)

Students should have extensive knowledge DNA amplification and recombinant DNA within the field of Applied Biotechnology, the knowledge of DNA/RNA structure and function and be able to use this knowledge in both research and development work. Students should also develop the theoretical and practical knowledge of how biotechnological projects are planned, controlled and completed

Learning Activity: (For example, what instructional processes do you plan to use to help students reach this outcome?)

This laboratory focused on nucleic acids will be intensive over the Fall semester to immerse the students in the skills required to reach the outcomes above.

Assessment Tool: (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)

A rubric will be developed for the evaluation of the experimental design and outcomes in addition to laboratory journals submitted.

*(Repeat if needed for additional outcomes 2 and 3)*



**Outcome #2:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

**Outcome #3:**

Enter text...

Learning Activity:

Enter text...

Assessment Tool:

Enter text...

24. Please indicate the extent to which this course addresses university-level student learning outcomes:

a. Global Awareness

- ☐ Minimally  
☒ Indirectly  
☐ Directly

b. Thinking Critically

- ☐ Minimally  
☐ Indirectly  
☒ Directly

c. Using Technology

- ☐ Minimally  
☐ Indirectly  
☒ Directly

---

**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

**To copy from the bulletin:**

1. Minimize this form.
2. Go to <http://registrar.astate.edu/bulletin.htm> and choose either undergraduate or graduate.
3. This will take you to a list of the bulletins by year, please open the most current bulletin.
4. Find the page(s) you wish to copy, click on the "select" button and highlight the pages you want to copy.
5. Right-click on the highlighted area.
6. Click on "copy".
7. Minimize the bulletin and maximize this page.

8. Right-click immediately below this area and choose "paste".
9. For additions to the bulletin, please change font color and make the font size larger than the surrounding text. Make it noticeable.
10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

## GRADUATE BULLETIN PAGES 283-284

### DEPARTMENT OF BIOLOGICAL SCIENCES

For each laboratory course taken, both the lecture and laboratory portions must be passed before credit for graduation is assigned.

#### Biology

**BIO 5001 Laboratory Techniques in Electron Microscopy** An introduction to the preparation of biological materials for viewing with the transmission-and-scanning electron microscope. Emphasis will be placed on preparative techniques that are commonly used in the laboratory. Lecture one hour per week. Prerequisites: eight hours upper-level biology coursework and permission of professor.

**BIO 5003 Laboratory for Laboratory Techniques in Electron Microscopy** Six hours per week. To be taken concurrently with BIO 5001. (Course fee, \$20)

**BIO 5033 Bioinformatics and Applications** Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use biological data sources to analyze nucleotide amino acid sequences and three dimensional atomic structures of proteins, nucleic acids allowing interpretations of biological processes. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5053 Applications in Biotechnology** Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013.

**BIO 5063 Biosafety and Ethics in Research** Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 3013.

**BIO 5104 Microbiology** Morphology, physiology, taxonomy, and cultivation of bacteria and other microorganisms with an emphasis on medically relevant bacteria. Two hours of lecture and four hours of lab per week.

**BIO 5152 Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Prerequisites, BIO 3013. (Course fee, \$100.)

**BIO 5154 Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Prerequisites, BIO 4152. (Course fee, \$100.)

**BIO 5201 Laboratory for Issues in Human Ecology** Two hours per week. To be taken concurrently with BIO 5202. (Course fee, \$20)

## New/Special Course Proposal-Bulletin Change Transmittal Form

- ☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.  
☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☐ **New Course** or ☒ **Special Course (Check one box)**

Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.

Department Curriculum Committee Chair	Date	COPE Chair (if applicable)	Date
		Professional Education Head of Unit (If applicable)	Date
Department Chair	Date	General Education Committee Chair (if applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	Date
		Vice Chancellor for Academic Affairs	Date

<b>1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)</b>  CS 5943
<b>2. Course Title – if title is more than 30 character (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).</b>  <i>Robotics Application Programming (transcript: Robotics Application Programmng)</i>
<b>3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.</b>  <i>Lecture only</i>
<b>4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?</b>  <i>Standard letter grade</i>
<b>5. Is this course dual listed (undergraduate/graduate)?</b>  <i>yes</i>
<b>6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)</b>  <i>no</i>
<b>7. Brief course description (40 words or less) as it should appear in the bulletin.</b>  <i>Programmed control of robotic devices with emphasis on visual, audio, and other sensory inputs. Applications developed for use of inputs in solving problems modeling real-world situations.</i>

<p><b>8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, they will not be allowed to register).</b></p> <p>CS 3113, MATH 2183, and either MATH 2204, 2143 or 2194.</p>
<p><b>9. Course frequency (e.g. Fall, Spring, Summer, or Demand). Not applicable to Graduate courses.</b></p> <p>special course</p>
<p><b>10. Contact Person (Name, Name of Institution, Address, Email Address, Phone Number)</b></p> <p>Hai Jiang, Department of Computer Science, <a href="mailto:hjiang@astate.edu">hjiang@astate.edu</a>, (870)680-8164</p>
<p><b>11. Proposed Starting Term/Year</b></p> <p>Summer 2013</p>
<p><b>12. Is this course in support of a new program? If yes, what program?</b></p> <p>no</p>
<p><b>13. Does this course replace a course being deleted?</b></p> <p><b>b. If yes, what course?</b></p> <p>no</p> <p><b>c. Has this course number been used in the past?</b></p> <p>no</p> <p><b>Attach Course Deletion Proposal-Bulletin Change Transmittal Form.</b></p>
<p><b>14. Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.</b></p> <p>no</p>
<p><b>15. Justification should include:</b></p> <p><b>A. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).</b></p> <p><i>Students will become familiar with basic electronics and computer programming associated with robotics devices. Student will be able to construct simple circuits for electronic control of devices. Student will have improved mastery of programmed interface design. Student will also develop improved problem-solving skills and facility with applied mathematics.</i></p> <p><b>B. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.</b></p> <p><i>The department's mission includes exposing students to a wide range of applications of computer science in industry and academics. Robotics is a very common topic in and of itself; it is particularly valuable in its cross-disciplinary nature, as it ties together a variety of topics from other courses in the student's education.</i></p> <p><b>C. Student population served.</b></p> <p><i>Computer Science seniors and graduate students</i></p> <p><b>D. Rationale for the level of the course (lower, upper, or graduate).</b></p> <p><i>The material is of a sufficiently advanced nature that the maturity of upper level undergraduate or beginning graduate students is required.</i></p>

**16. Outline** (The course outline should be topical by weeks and should be sufficient in detail as to allow for judgment of the content of the course.)

course content on regular semester schedule

Weeks 1-2 basic electronic control circuit design

Week 2 electronic control circuit implementation

Week 3 programmed control, intro kinematics

Week 4 visual sensors

Week 5 visual sensor algorithms

Week 6 image processing introduction

Week 7 audio sensors

Week 8 audio sensor algorithms

Week 9 feedback sensors; speed control theory

Week 10 feedback control algorithms

Week 11 miscellaneous sensors (gas, magnetic, etc.)

Week 12 miscellaneous sensor algorithms

Weeks 13-14 individual project selection & implementation

**17. Course requirements** (e.g. research papers, projects, interviews, tests, etc.)

*The course will require the writing of three in-class exams, a comprehensive final, periodic programming assignments throughout the semester, and a project putting hardware together with software control. Programming assignments and the hardware project will be of a more sophisticated nature for graduate students participating in the course.*

**18. Special features** (e.g. labs, exhibits, site visitations, etc.)

*The course will be administered in a standard lecture format with lab-style assistance provided on an as-needed basis during office hours.*

**19. Required reading**

*Reading assignments are being written by the course professor (In the context of a textbook).*

**20. Department staffing and classroom/lab resources** (Will this require additional faculty, supplies, etc.?)

*No additional faculty or supplies will be required.*

**21. What is the primary goal of this course?**

*The primary goal is to provide students with exposure to an applied, multidisciplinary aspect of computer science.*

**22. If this proposal is for a general education course, please check the primary goal this course addresses:**

☐ Communicating effectively

☐ Thinking Critically

☐ Using mathematics

☐ Using Technology

☐ Understanding global issues

☐ Understanding interdependence

☐ Developing a life-long appreciation of the arts and humanities

☐ Developing a strong foundation in the social sciences

☐ Using science to accomplish common goals

☐ Providing foundations necessary to achieve health and wellness

**23. Considering the indicated primary goal, provide up to three outcomes that you expect of students after completion of this course. For example, what will students who meet this goal know or be able to do as a result of this course?**

**Primary Goal Outcome #1:** *ability to program for a hardware interface between computer and device; undergraduate students will implement a basic GUI design for the interface while a more advanced design will be required of graduate students*

**Learning Activity:** *semester project utilizing information from classroom discussion*

**Assessment Tool:** *presentation of project at semester's end; grading rubric will outline the higher expectations made of graduate students*

**Primary Goal Outcome #2:** *enhanced familiarity with multidisciplinary subject matter in computer science*

**Learning Activity:** *classroom discussion and homework assignments tying together topics in mathematics, physics, and basic electronics*

**Assessment Tool:** *undergraduate students will incorporate items from a list of basic topics in their interdisciplinary projects; graduate students will similarly incorporate items from a list of more advanced topics; grading rubric will outline the higher expectations made of graduate students*

**Primary Goal Outcome #3:** *specific abilities with application programming and user interface design as outlined in grading rubric for demonstration of competency; grading rubric will outline more advanced requirements for graduate students*

**Learning Activity:** *homework assignments*

**Assessment Tool:** *peer presentations and graded projects; one specific presentation will be graded for assessment*

**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

**To copy from the bulletin:**

1. Minimize this form.
2. Go to <http://registrar.astate.edu/bulletin.htm> and choose either undergraduate or graduate.
3. This will take you to a list of the bulletins by year, please open the most current bulletin.
4. Find the page(s) you wish to copy, click on the "select" button and highlight the pages you want to copy.
5. Right-click on the highlighted area.
6. Click on "copy".
7. Minimize the bulletin and maximize this page.
8. Right-click immediately below this area and choose "paste".
9. For additions to the bulletin, please change font color and make the font size larger than the surrounding text. Make it noticeable.
10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

## New/Special Course Proposal-Bulletin Change Transmittal Form

☐ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☐ **New Course** or ☐ **Special Course (Check one box)**

Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.

Department Curriculum Committee Chair

Date

COPE Chair (if applicable)

Date

Department Chair

Date

General Education Committee Chair (if applicable)

Date

College Curriculum Committee Chair

Date

Undergraduate Curriculum Council Chair

Date

College Dean

Date

Graduate Curriculum Committee Chair

Date

Vice Chancellor for Academic Affairs

Date

**1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)**

MUSP 5151

**2. Course Title – if title is more than 30 character (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).**

Collaborative Piano

**3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.**

Performance

**4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?**

Standard letter

**1. Is this course dual listed (undergraduate/graduate)?**

Yes

**6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)**

No

**7. Brief course description (40 words or less) as it should appear in the bulletin.**

**MUSP 5151? Collaborative Piano**

Master class/lecture in Collaborative Piano Techniques. For advanced pianists. Permission of instructor required. May be repeated for credit. One hour class per week. Five hours practice required. Students who are enrolled in 1 credit hour of Applied Music courses will be assessed a \$35.00 special course fee. The maximum special course fee for students enrolled in 2 or more credit hours of Applied Music is \$55.00. Demand.

**8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, they will not be allowed to register).**

Permission of instructor

**9. Course frequency (e.g. Fall, Spring, Summer, or Demand). Not applicable to Graduate courses.**

Demand

**10. Contact Person (Name, Name of Institution, Address, Email Address, Phone Number)**

Dr. Lauren Schack Clark

Arkansas State University  
 Music Dept., PO Box 779  
 State University, AR 72467  
[lsclark@astate.edu](mailto:lsclark@astate.edu); 680-8029

**11. Proposed Starting Term/Year**

Fall 2013

**12. Is this course in support of a new program? If yes, what program?**

No

**13. Does this course replace a course being deleted? No**

b. If yes, what course?

c. Has this course number been used in the past?

**Attach Course Deletion Proposal-Bulletin Change Transmittal Form.**

**14. Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.**

No

**15. Justification should include:**

- A. **Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).**  
 Students will gain proficiency in the performance of collaborative piano music from the vocal and instrumental genres. They will explore issues of repertoire, performance practice, rehearsal techniques, and balance issues, and gain experience through in-class performances and critiques.
- B. **How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.**  
 This ties into the Music Department Mission Statement, because it provides preparation for students to be highly skilled performers and music educators. There is an undergraduate level course in Collaborative Piano (MUS 4151), but none at the graduate level. This would allow graduate students interested in this repertoire an opportunity to study it at the intensive level. It will encourage students to apply for the proposed Master of Music. Concentration in Collaborative Piano, thus aiding recruiting. It will also provide service to the instrumental and vocal areas of the department.
- C. **Student population served.**  
 Graduate students.
- D. **Rationale for the level of the course (lower, upper, or graduate).**  
 There is an undergraduate level course in Collaborative Piano, but none at the graduate level. This would allow graduate students interested in this repertoire an opportunity to study it at the intensive level.

**16. Outline** (The course outline should be topical by weeks and should be sufficient in detail as to allow for judgment of the content of the course.)

In-class performances will be scheduled throughout the semester, based on student enrollment and difficulty of pieces to be prepared. At least 5 in-class performances per semester, with a partner vocalist/instrumentalist. At least one of the 5 performances should be with a vocalist, and at least one should be with an instrumentalist. Also, research papers, lectures. The student will be expected to perform in recitals and studio classes outside of class time. Practical aspects of the business of collaborative piano (invoices, record-keeping, etc.) will be discussed.

Week 1: Art Songs: Figured Bass realization, standard repertoire and composers, Italian, German  
 Week 2: Art Songs, standard repertoire and composers, German (cont.), French, others. International Phonetic Alphabet, Diction basics  
 Week 3: Transposition, Score reading of open choral scores  
 Week 4: Orchestral reductions of selected opera arias  
 Week 5: Orchestral reductions of selected instrumental concerti by Mozart and others  
 Week 6: Hindemith Sonatas, other instrumental sonatas  
 Week 7: Schubert, Schumann Brahms songs and chamber music  
 Week 8: Debussy, Ravel songs and chamber music  
 Week 9: Violin Sonatas: Beethoven, Franck, Debussy, Prokofiev, others  
 Week 10: Other String Sonatas: Beethoven Cello Sonata, Shostakovich Cello Sonata, others  
 Week 11: Repertoire for Brass and Piano  
 Week 12: Repertoire for Woodwinds and Piano  
 Week 13: In-class Performances  
 Week 14: In-class Performances, review.



Research paper on major collaborative work due on last class day. Approval for topic by instructor.

**17. Course requirements** (e.g. research papers, projects, interviews, tests, etc.)

At least 5 in-class performances per semester, with a partner vocalist/instrumentalist. At least one of the 5 performances should be with a vocalist, and at least one should be with an instrumentalist. Also, research papers, lectures.

**18. Special features** (e.g. labs, exhibits, site visitations, etc.)

None

**19. Required reading**

Selections from Martin Katz's *The Complete Collaborator*, Heasook Rhea's *The Art of Instrumental Accompanying: A Practical Guide for the Collaborative Pianist*, and others.

**20. Department staffing and classroom/lab resources** (Will this require additional faculty, supplies, etc.?)

ASU Recital Hall. No additional faculty or supplies required

**21. What is the primary goal of this course?**

Intensive study and performance of major collaborative works for voice and instruments, and honing practical skills in these area. It will encourage students to apply for the proposed Master of Music Concentration in Collaborative Piano, thus aiding recruiting. It will also provide service to the instrumental and vocal areas of the department.

**22. If this proposal is for a general education course, please check the primary goal this course addresses:**

- |                                                                                         |                                                                                         |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> Communicating effectively                                      | <input type="checkbox"/> Thinking Critically                                            |
| <input type="checkbox"/> Using mathematics                                              | <input type="checkbox"/> Using Technology                                               |
| <input type="checkbox"/> Understanding global issues                                    | <input type="checkbox"/> Understanding interdependence                                  |
| <input type="checkbox"/> Developing a life-long appreciation of the arts and humanities | <input type="checkbox"/> Developing a strong foundation in the social sciences          |
| <input type="checkbox"/> Using science to accomplish common goals                       | <input type="checkbox"/> Providing foundations necessary to achieve health and wellness |

**23. Considering the indicated primary goal, provide up to three outcomes that you expect of students after completion of this course. For example, what will students who meet this goal know or be able to do as a result of this course?**

**Primary Goal Outcome #1:**

Intensive study and performance of major collaborative works for voice and instruments, and honing practical skills in these areas. . It will encourage students to apply for the proposed Master of Music Concentration in Collaborative Piano, thus aiding recruiting. It will also provide service to the instrumental and vocal areas of the department.

**Learning Activity:** (For example, what instructional processes do you plan to use to help students reach this outcome?)

In-Class performances with critiques, lectures, written work

**Assessment Tool:** (For example, what will students demonstrate, represent, or produce to provide evidence of their learning?)

Critiques of performances during class time, final performance at end of semester, grading of written work.

(Repeat if needed for additional outcomes 2 and 3.)

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10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

## FROM 2012-2013 GRADUATE BULLETIN,

### P. 187-189

#### MASTER OF MUSIC DEGREE

##### Admission Requirements

Applicants seeking admission to the Master of Music degree program must take the ASU Department of Music entrance examinations in music history and written and aural music theory. The results of this examination assist in planning each student's exact course of study. A grade of "A" or "B" must be achieved in any remedial coursework. Remedial coursework may not be counted as credit toward the degree. Arkansas State University graduates who begin graduate studies within eighteen months of graduation will not be required to take the entrance examination providing they received an "A" or "B" on all undergraduate music theory and history coursework. Students seeking admission to the Master of Music in Performance with an emphasis in Instrumental or Vocal Performance must audition for the appropriate applied faculty member prior to initial enrollment. At the discretion of the applied faculty member a three to five member committee may be convened to hear the audition. The applied faculty member (or committee) will evaluate the performance and report the results to the Graduate Program Supervisor. All graduate instrumental and vocal performance students are required 188

to perform a proficiency jury at the end of the first semester of applied study. Students will receive written comments from the jury panel.

Students seeking admission to the Master of Music in Performance with an emphasis in Instrumental or Choral Conducting must submit a videotape or DVD to the appropriate applied conducting faculty member prior to initial enrollment, or conduct two pieces in live audition. At the discretion of the applied faculty member, a three to five member committee may be convened to evaluate the videotape or live audition. Contents of the videotape or DVD should include two or more numbers of contrasting styles with a total time of no less than eight minutes. The video should be a front view of the conductor, not the ensemble. The conducting faculty (or committee) will evaluate the videotape and report the results to the Graduate Program Supervisor.

##### Courses required of all candidates:

MUS 6212, Introduction to Research, Writing, and Bibliography in Music

MUS 6222, teaching and Learning Music

##### Performance Major, Instrumental or Vocal:

One Hour Graduate Recital\*

Eight Hours Applied Major

Three Hours Large Ensembles

Six Hours Music History (6000 level)

Six Hours Music Theory (Must be at 6000 level)

Two Hours Pedagogy

Languages for Voice and Keyboard Major

The Master of Music degree in performance requires language proficiency as follows:

Majors in voice must demonstrate reading proficiency in two foreign languages, and majors in keyboard instruments in one foreign language. French and/or German are the recommended languages.

\*\*Piano and guitar majors are required three hours of large ensembles and/or advised electives.

##### Collaborative Piano Major:

Six Hours Applied Lessons

Four Hours Graduate Collaborative Piano

One Hour Graduate Recital

Four Hours Pedagogy

Six Hours Music History

Three Hours Music Theory

Piano Pedagogy Major:

Revised 9/25/2008

Eight Hours Applied Lessons

One Hour Graduate Recital

Six Hours Pedagogy

Six Hours Music History

Three Hours Music Theory

Two Hours Advised Electives

**Composition Major:**

Eight Hours Applied Composition

Three Hours Applied Electronic Music Techniques, MUSP 6111-2

Six Hours Music Theory

One Hour Graduate Recital\*

Six Hours Music History Electives

Two Hours Pedagogy

**Conducting Major:**

Eight Hours Applied Conducting

One Hour Graduate Recital\*

Two Hours Pedagogy and Performance

Six Hours Music History (6000 level)

189

Six Hours Music Theory (6000 level)

Three Hours Advised Ensembles and Electives

**Minimum hours required for these programs: 30**

\*All students pursuing the Master of Music Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document **may be obtained from the Graduate Program Supervisor in the Music Department.**

**FROM 2012-2013 GRADUATE BULLETIN,**

**P. 194**

**Performance Courses**

**MUSP 5151? Graduate Collaborative Piano** For advanced pianists. Permission of instructor required. May be repeated for credit. One hour credit. One hour class per week, combination of master class/lecture. Five hours practice required. Students who are enrolled in 1 credit hour of Applied Music courses will be assessed a \$35.00 special course fee. The maximum special course fee for students enrolled in 2 or more credit hours of Applied Music is \$55.00. Demand.

**MUSP 6111-4 Performance** (may be repeated for credit).

**MUSP 6111-2 Applied Electronic Music Techniques** (may be repeated for credit).

**MUSP 6111-4 Applied Conducting** (may be repeated for credit). Maximum of three semester hours of Applied Conducting may be applied toward the Master of Music Education degree.

**MUSP 6121-2 Pedagogy and Performance** The study of the literature and pedagogical techniques as related to performance. (may be repeated for credit).

**MUS 6131 Graduate Recital** A full length formal recital with an accompanying scholarly document.

**Ensembles-Choral and Instrumental**

**MUS 6141 Small Ensemble** (may be repeated for credit).

**MUS 6222 Teaching and Learning Music** Students will explore the combined academic fields of psychology, sociology, teaching methods, motivation, and developmental aspects within learning music. Students will benefit learning how music performance can be enhanced through understanding how people learn music.

**MUS 6311 Wind Ensemble**

**MUS 6321 Symphonic Band**

**MUS 6331 Marching Band**

**MUS 6341 Jazz Ensemble**

**MUS 6351 Concert Choir**

**MUS 6361 University Singers**

**MUS 6471 Opera Production** A course in the study and performance of selected opera literature. Emphasis placed on directing and production.

**MUS 6481 Orchestra**

## New/Special Course Proposal-Bulletin Change Transmittal Form

- ☐ **Undergraduate Curriculum Council** - Print 1 copy for signatures and save 1 electronic copy.  
☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course (Check one box)**

Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.

Department Curriculum Committee Chair	Date	COPE Chair (if applicable)	Date
		Professional Education Head of Unit (If applicable)	Date
Department Chair	Date		
		General Education Committee Chair (If applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	Date
		Vice Chancellor for Academic Affairs	Date

1.	<b>Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)</b> POSC 6013
2.	<b>Course Title – if title is more than 30 character (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).</b> Advanced Political Analysis
3.	<b>Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.</b> Lecture only
4.	<b>What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?</b> Standard letter
5.	<b>Is this course dual listed (undergraduate/graduate)?</b> No
6.	<b>Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)</b> No
7.	<b>Brief course description (40 words or less) as it should appear in the bulletin.</b> Quantitative analysis of political phenomena, including research design and analysis, theory formation, hypotheses, analytical techniques, and advanced regression.
8.	<b>Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, they will not be allowed to register).</b>  <b>a. Are there any prerequisites?</b> Yes – POSC 6003  <b>b. Why?</b> This course builds on the concepts and skills obtained in 6003. 6003 equips students with some basic tools for political analysis. This course provides students with the knowledge of how to apply those tools in the context of a research project. It also goes beyond the basic tools for political analysis to introduce students to solutions to some of the challenges they will encounter while using the basic tools. If students are not required to take 6003 first, they will be unable to understand class discussion and successfully complete the assignments required in the course. In addition, it makes little sense to teach them about the solutions to basic problems in political analysis without first introducing them to how those basic tools work.
9.	<b>Course frequency (e.g. Fall, Spring, Summer). Not applicable to Graduate courses.</b> Graduate course
10.	<b>Contact Person (Name, Name of Institution, Address, Email Address, Phone Number)</b> Daniel Milton, ASU – Political Science, Wilson Hall 416, dmilton@astate.edu, 870-972-3690

11. <b>Proposed Starting Term/Year</b> Spring 2014
12. <b>Is this course in support of a new program? If yes, what program?</b> No. It is in support of the already established MA in Political Science Program.
13. <b>Does this course replace a course being deleted?</b> No. b. <b>If yes, what course?</b> N/A c. <b>Has this course number been used in the past?</b> No.  <b>Attach Course Deletion Proposal-Bulletin Change Transmittal Form.</b>
14. <b>Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.</b> N/A
15. <b>Justification should include:</b> A. <b>Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).</b> Students who successfully complete this course will not only have been exposed to a broad range of techniques for conducting analysis on political questions, but they will also come out having had the opportunity to practice the application of these skills. Students will know how to take a research paper from idea to finished product. They will learn new ways of testing their hypotheses. They will also learn communication skills as they present their work and have the opportunity to critique the work of others. As they progress in the MA program, the skills acquired in this course will be very useful as they develop and execute their thesis. B. <b>How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.</b> Part of the mission of the Political Science department in its MA program is to prepare students for the possibility of graduate study at Ph.D. granting institutions. Most doctoral institutions are rapidly advancing the methods training offered to students. Students who have methods training are more likely to be accepted, as they will be able to demonstrate some level of familiarity with research methods in Political Science. Those students who come into the Ph.D. program without a good base of knowledge in research design and methods are less able to be successful. C. <b>Student population served.</b> The primary target group of interest is the MA student body in Political Science. It is also possible that a number of MPA students will elect to take this course as well. D. <b>Rationale for the level of the course (lower, upper, or graduate).</b> Requires the foundation of another graduate course, POSC 6003, prior to enrollment.
16. <b>Outline</b> (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.) Week 1: Theory Design: Puzzles, Causation Week 2: Theory Design: Assumptions, Concepts Week 3: Theory Design: Hypothesis Week 4: Testing Hypotheses: Operationalization & Validity Week 5: Testing Hypotheses: Qualitative and Quantitative Methods Week 6: Testing Hypotheses: Experiments (Laboratory, Natural, Quasi) Week 7: Midterm Week 8: Multivariate Regression Week 9: Multicollinearity, Interaction Terms Week 10: Limited Dependent Variables (Logit, Probit) Week 11: Limited Dependent Variables (Count models: Poisson, Negative Binomial) Week 12: Individual Student Paper Consultations Week 13: Individual Student Paper Consultations Week 14: Presentations
17. <b>Course requirements</b> (e.g. research papers, projects, interviews, tests, etc.) Homework assignments, midterm, final paper (which includes various components, including topic selection, literature review, data collection, quantitative analysis, write-up), paper presentation, participation
18. <b>Special features</b> (e.g. labs, exhibits, site visitations, etc.) N/A
19. <b>Required reading</b> Berry, William D. and Mitchel S. Sanders. 2000. <i>Understanding Multivariate Research</i> . Boulder, CO: Westview Press.  Becker, Howard S. 1986. <i>Writing for Social Scientists: How to Start and Finish Your Thesis, Book, or Article</i> . Chicago and London: University of Chicago Press.  American Political Science Association. 2006. <i>Style Manual for Political Science</i> . Washington, DC: American Political Science Association.
20. <b>Department staffing and classroom/lab resources</b> (Will this require additional faculty, supplies, etc.?) Additional faculty and supplies will not be required.
21. <b>What is the primary goal of this course?</b> To develop advanced quantitative skills.
22. <b>If this proposal is for a general education course, please check the primary goal this course addresses:</b> N/A

- ☐ Communicating effectively
- ☐ Using mathematics
- ☐ Developing a life-long appreciation of the arts and humanities
- ☐ Developing a strong foundation in the social sciences
- ☐ Using science to accomplish common goals

23. Considering the indicated primary goal, provide up to three outcomes that you expect of students after completion of this course. For example, what will students who meet this goal know or be able to do as a result of this course?

**Primary Goal Outcome #1:** Produce a feasible a research design

**Learning Activity:**

**Assessment Tool:** Midterm, Research Paper

**Primary Goal Outcome #2:** Demonstrate skill in quantitative analysis

**Learning Activity:**

**Assessment Tool:** Homework assignments, Research paper

**Primary Goal Outcome #3:** Demonstrate effective presentation of research results

**Learning Activity:**

**Assessment Tool:** End of the year presentations

**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

Graduate Bulletin, 2012-13: p 222

**HIST 6623 European History:** (subtitle varies) Studies in select topics in the history of Europe. (May be repeated for credit with different subtitle.)

**HIST 6633 Eurasian History:** (subtitle varies) Studies in select topics in the history of Eastern Europe, Russia, and the Eurasian Plain. (May be repeated for credit with different subtitle.)

**HIST 6653 Asian History:** (subtitle varies) Studies in select topics in the history of Asia. (May be repeated for credit with different subtitle.)

#### **DEPARTMENT OF LANGUAGES**

##### **French**

**FR 5503 Special Topics** Advanced study in a genre, movement, author, culture or other specialized topics. May be repeated when topic changes. Prerequisite: permission of professor.

**FR 560V (1-3 hours) Special Project in Teaching** An independent study and practical application of selected professional topics in language teaching. May not be used to satisfy any degree requirements. Prerequisite: BSE majors only with at least 21 hours above FR 2023 and permission of professor.

**FR 680V (1-3 hours) Independent Study**

##### **Spanish**

**SPAN 5503 Special Topics** Intensive study of a theme, motif, literary movement, genre, author, or a significant feature of several works of Spanish literature. May be repeated when topic changes. Prerequisite: SPAN 3413 or permission of professor.

**SPAN 560V (1-3 hours) Special Project in Teaching** An independent study of selected professional topics in language teaching. This course may not be used to satisfy any degree requirements. May be repeated for up to six hours credit. Prerequisite: BSE majors only with at least 21 hours above SPAN 2023 and permission of professor.

**SPAN 680V (1-3 hours) Independent Study**

#### **DEPARTMENT OF POLITICAL SCIENCE**

##### **General Political Science**

**POSC 6003 Techniques of Political and Public Administration Research** Develops a working knowledge of the substance of contemporary research in political science and public administration and of alternative research strategies and techniques of data analysis in contemporary research. Prerequisite: POSC 3003 or equivalent or permission of professor.

**POSC 6013 Advanced Political Analysis** Quantitative analysis of political phenomena, including research design and analysis, theory formation, hypotheses, analytical techniques, and advanced regression.

**POSC 660V (3-6 hours) Internship in Public Administration**

**POSC 665V (1-6 hours) Thesis**

**POSC 680V (1-3 hours) Independent Study**



**New/Special Course Proposal-Bulletin Change Transmittal Form**

☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course (Check one box)**

Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.

Department Curriculum Committee Chair  
David Levenbach

Date

COPE Chair (if applicable)

Date

Department Chair  
William McLean

Date

General Education Committee Chair (if applicable)

Date

College Curriculum Committee Chair  
David Levenbach

Date

Undergraduate Curriculum Council Chair

Date

College Dean  
Lauri Umansky

Date

Graduate Curriculum Committee Chair

Date

Vice Chancellor for Academic Affairs

Date

1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)

**POSC 6243 Political Violence**

2. Course Title – if title is more than 30 character (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

**Political Violence**

3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

**Seminar**

4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?

**Standard Letter Grade**

1. Is this course dual listed (undergraduate/graduate)?

**No**

6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)

**No**

7. Brief course description (40 words or less) as it should appear in the bulletin.

**Study of theories relating to inter-state and intra-state violence and conflict including an analysis of contemporary empirical work on civil wars, inter-state wars, revolutions, coups, genocide, violent social movements, and state repression.**

8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, they will not be allowed to register).

None

9. Course frequency (e.g. Fall, Spring, Summer, or Demand). Not applicable to Graduate courses.  
N/A

10. Contact Person (Name, Name of Institution, Address, Email Address, Phone Number)

**Rollin F. Tusalem**  
**Arkansas State University**  
**Department of Political Science**  
**PO Box 1750**  
**State University, Arkansas**  
**72467**  
**Email: [rtusalem@astate.edu](mailto:rtusalem@astate.edu)**  
**Phone number: 870-972-2188**

11. Proposed Starting Term/Year

**Spring 2014**

12. Is this course in support of a new program? If yes, what program?

**No.**

13. Does this course replace a course being deleted?

b. If yes, what course?

**POSC 6323 Revolutions and Foreign Policy**

c. Has this course number been used in the past?

**No**

Attach Course Deletion Proposal-Bulletin Change Transmittal Form.

(See attachment)

14. Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.

**No**

15. Justification should include:

A. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).

**This class will analyze in depth the causes, consequences, and outcomes of inter-state and intra-state violence exploring theoretical perspectives and case study narratives.**

**Course Overview: Since the end of the cold war, some political scientists and historians have declared that history has died, that is, we have seen the end of global conflict. Yet today we know this is incorrect. Although the frequency of civil wars and interstate wars has actually declined since the 1990s, wars**

**within states and among states are still occurring in the world stage. Political violence within the state such as genocide, state repression, coups, and genocide has also witnessed a revival attributed to ethnic fractionalization. This course will introduce students to the theories widely explored by political scientists on why nation-states go to war involving other states, why some nation-states are predisposed to having groups kill each other, why democracies are less likely to engage in war, and how culture, natural resources, demographic changes, and geographical topographies affect the likelihood of war and political violence. Thematically and theoretically, students will understand and analyze the determinants of civil wars, state-level violence, and inter-state conflicts not only through selective case studies but also by exploring quantitative research on the topic.**

**Course Objectives: The core objectives of the course are (a.) To develop critical thinking skills of graduate students, (b.) To promote the skill of analyzing and interpreting quantitative data used in political science research and the ability to find meaning and relevance in them by examining case study narratives, (c.) To acquire tools of writing effectively in the discipline and enhance one's research skills, (d.) To be able to evaluate theories used in international relations and comparative politics and to write critically about them, (e.) To be able to carry out an empirical project that is appropriate to be presented at an academic conference.**

- B. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.**

**The course satisfies the mission of the graduate program in terms of preparing students for doctoral programs in political science or law school.**

- C. Student population served.**

**MA students in political science or the social sciences.**

- D. Rationale for the level of the course (lower, upper, or graduate).**

**This course deals involves working with current primary research in an area involving complex methodological issue and requires students to design and execute an empirical project and, so, is only appropriate at the graduate level.**

**16. Outline** (The course outline should be topical by weeks and should be sufficient in detail as to allow for judgment of the content of the course.)

**Week 1—Theories on civil wars ( causes and consequences); Introducing quantitative studies by prominent scholars in the field James Fearon and David Laitin, Stathis Kalyvas , Nicholas Sambanis, and Barbara Walter.**

**Week 2— Theories on civil war by other scholars looking at ethnicity, political geography, culture, natural resources, and demographics as determinants.**

**Week 3—International effects of civil wars, the conflict processes during civil wars, and the resolution and aftermath of civil wars.**

**Week 4—Theories on inter-state conflict, the democratic peace theory; Theories on why nascent democracies go to war; The role of alliances, territorial disputes, arms-building, capabilities and on-going rivalries.**

**Week 5—Systemic level theories on inter-state war, Hegemonic Stability theory, Power Transitions Theory, Long Cycle Theory (Kondratiev waves). The role of state-level endowments and natural resources on the onset and incidence of inter-state war (oil, minerals, and water).**

**Week 6— Theoretical, comparative, and historical causes of revolutions.**

**Week 7—Case study narratives of contemporary revolutions; Introducing STATA as a statistical software.**

**Weeks 8 and 9—Determinants of coup d'état events examining the role of ethnic fractionalization, the selectorate, civil society, the institutionalization of party systems, regime type, colonial trajectories, and economic development. The consequences of politicized militaries in the developing world.**

**Weeks 10-11 —Case study narratives of contemporary coup events.**

**Week 12- The politics of human rights violations and state repression; Case study narratives.**

**Week 13— Examination of empirical research related to the causes and consequences of genocide and democide.**

**Weeks 14-15—Case study narratives of genocide and democide.**

**17. Course requirements** (e.g. research papers, projects, interviews, tests, etc.)

**Course Requirements and Assessment:**

Midterm Exam

Final Exam

Book Review

Research Paper/Presentation

**Book Review:**

The book review requires the student to evaluate the theories and case studies presented in a book related to political violence that tackles the complex relations within and between nation-states as it relates to civil wars, revolutions, ethnic/religious violence, coups, and genocide.

**Research Paper**

The graduate seminar entails the completion of an empirical project that involves the collection of data and statistical analysis. At the end of the semester, students are required to present the findings of their empirical project in front of their peers.

**18. Special features** (e.g. labs, exhibits, site visitations, etc.)

None

**19. Required reading****Required Textbook:**

- 1.) Lounsbury, Marie Olson and Frederic Pearson. 2008. *Civil Wars: Internal Struggles, Global Consequences*. University of Toronto Press. ISBN#978-0-80209-672-2.
- 2.) Vasquez, John, ed. 2000. *What Do We Know About War? Quantitative Studies on War*. Rowman and Littlefield. ISBN#0-8476-9927-7
- 3.) Mansfield, Edward and Jack Snyder. 2005. *Electing to Fight: Why Emerging Democracies Go to War*. MIT Press. ISBN # 0-262-63347-7.
- 4.) Davenport, Christian. 2009. *State Repression and the Domestic Democratic Peace*. Cambridge University Press. ISBN# 0521168716.
- 5.) Tilly, Charles. 2003. *The Politics of Collective Violence*. Cambridge University Press. ISBN#978521824286

**20. Department staffing and classroom/lab resources** (Will this require additional faculty, supplies, etc.?)

No.

**21. What is the primary goal of this course?**

The primary goal of this course is to provide students a thorough study of all the theoretical and empirical perspectives and controversies on political violence, a theme of study that is of central significance in the subfield of Comparative Politics.

**22. If this proposal is for a general education course, please check the primary goal this course addresses:**

Communicating effectively	Thinking Critically
Using mathematics	Using Technology
Understanding global issues	Understanding interdependence
Developing a life-long appreciation of the arts and humanities	Developing a strong foundation in the social sciences
Using the scientific method to accomplish common goals	Providing foundations necessary to achieve health and wellness

**23. Considering the indicated primary goal, provide up to three outcomes that you expect of students after completion of this course. For example, what will students who meet this goal know or be able to do as a result of this course?**

**Primary Goal Outcome: To produce empirical research on political violence**

.

## Assessment Tool: An empirical research project

**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

**To copy from the bulletin:**

1. Minimize this form.
2. Go to <http://registrar.astate.edu/bulletin.htm> and choose either undergraduate or graduate.
3. This will take you to a list of the bulletins by year, please open the most current bulletin.
4. Find the page(s) you wish to copy, click on the "select" button and highlight the pages you want to copy.
5. Right-click on the highlighted area.
6. Click on "copy".
7. Minimize the bulletin and maximize this page.
8. Right-click immediately below this area and choose "paste".
9. For additions to the bulletin, please change font color and make the font size larger than the surrounding text. Make it noticeable.
10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

Graduate Bulletin 2012-13, p 224

**POSC 6223 Seminar in Comparative Politics** A review of the theory and method of comparative political study with an analysis of governmental institutions in Western and non-Western countries.

**POSC 6233. Seminar on Politics and Religion** Investigates variations in the extent to which, and the means by which, faith and faith institutions influence politics.

**POSC 6243. Political Violence** Study of theories relating to inter-state and intra-state violence and conflict including an analysis of contemporary empirical work on civil wars, inter-state wars, revolutions, coups, genocide, violent social movements, and state repression.

**International Relations**

**POSC 5313 International Organization** Development, structure, and politics of international organizations such as the United Nations.

**POSC 6313 Contemporary International Relations** A study of contemporary international problems and issues as they are related to the foreign policies of major powers.

~~**POSC 6323 Revolutions and Foreign Policy** A study of the revolutionary process in selected countries and its implications for foreign policy.~~

**POSC 6333 International Relations Theory** An in-depth examination of theories of international relations, such as realism, balance-of-power, pluralism, and globalism.

**POSC 6343 The Environment and World Politics** A study of the politics of the global environment, including disputes between industrialized countries and the Third World over population policies, deforestation, global warming, and use of the oceans.

**Public Administration**

**POSC 5533 Environmental Law and Administration** Overview of current environmental law, its administration and enforcement.

**POSC 6503 Managing Local Government** An analysis of how public administrators manage municipal government, with special reference to such topics as community and economic development, housing, recreation, public safety, waste disposal, etc.

**POSC 6513 Administrative Law** A study of the rules and procedures of bureaucratic organizations and their applications.

**POSC 6523 Decision Making** An examination of decision-making models for individuals, small groups, and large organizations in the public sector.

**POSC 6533 Public Policy Analysis and Evaluation** Provides a theoretical and

Revised 9/25/2008

technical framework for understanding the fundamentals of policy analysis and evaluation.

**POSC 6543 Administrative Behavior** An examination of administrative structures and patterns of behavior in public sector organizations.

**POSC 6553 Public Budgeting and Finance** A study of political processes and administrative methods associated with governmental revenues, expenditures, and fiscal control of public organizations.

**POSC 6563 Seminar in Public Administration** An examination of the development of public administration as a profession; its history, political environment, ethics, and its method.

## New/Special Course Proposal-Bulletin Change Transmittal Form

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☒ **New Course** or ☐ **Special Course (Check one box)**

Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.

Department Curriculum Committee Chair	Date	COPE Chair (if applicable)	Date
Department Chair	Date	General Education Committee Chair (if applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	Date
		Vice Chancellor for Academic Affairs	Date

<b>1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)</b> POSC 6653
<b>2. Course Title – if title is more than 30 character (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).</b> MPA Capstone Experience
<b>3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.</b> Experiential learning
<b>4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?</b> Pass/fail
<b>1. Is this course dual listed (undergraduate/graduate)?</b> No
<b>6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)</b> No
<b>7. Brief course description (40 words or less) as it should appear in the bulletin.</b> Designed for students to construct a professional portfolio to showcase, in a single document, the skills, competencies, and knowledge they have developed over their time in the MPA program.
<b>8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, they will not be allowed to register).</b> There are no prerequisites, but registration will be restricted to students in their final enrollment term in the MPA program.
<b>9. Course frequency (e.g. Fall, Spring, Summer, or Demand). Not applicable to Graduate courses.</b>
<b>10. Contact Person (Name, Name of Institution, Address, Email Address, Phone Number)</b> William P. Mclean, Arkansas State University, P.O. Box 1750, State University, AR 72467, (870) 972-3048
<b>11. Proposed Starting Term/Year</b> Summer 2013



**12. Is this course in support of a new program? If yes, what program?**

No

**13. Does this course replace a course being deleted?**

No

**b. If yes, what course?****c. Has this course number been used in the past?****Attach Course Deletion Proposal-Bulletin Change Transmittal Form.****14. Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.**

No

**15. Justification should include:****A. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).**

Following a National Association of Schools of Public Affairs and Administration (NASPAA) directive during AY 2008-09, the ASU MPA Program began a transition to outcomes-based accreditation standards as it relates to student competency assessment. As part of that assessment, the MPA Program replaced the comprehensive examination requirement that was deemed too "course specific" and instead began utilizing a set of comprehensive case studies that assessed mastery of the specific outcomes (see below in Section B) listed in the ASU MPA Program mission statement. Over time, these case studies have grown more comprehensive in nature and require significant work, independent of time spent in the classroom. The amount of work required for each of these case studies (3) requires students to conduct individual research including gathering budget information, data collection, statistical analysis, cost-benefit analysis, significant library research and possible interviews.

The portfolio, with the case studies as a component, allow the MPA Program:

- To document student competencies in established academic and professional areas
- To document student development over the course of study
- To encourage conscious public service through reflexivity and self-assessment
- To demonstrate knowledge, skills, and abilities to prospective employers
- To provide students an opportunity to develop and refine personal and professional development goals, and
- To provide students and faculty an opportunity to assess the MPA program.

**B. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.**

While this specific course is not required for accreditation, NASPAA Standard 1.2 does require accredited programs to establish observable program goals, objectives and outcomes, including expectations for student learning consistent with its mission. Further, NASPAA Standard 5.1 requires universal competencies. The competencies encompass five domains required by NASPAA Standard 5.1. The competencies are:

1. to lead and manage in public governance
2. to participate in and contribute to the policy process
3. to analyze, synthesize, think critically, solve problems and make decisions
4. to articulate and apply a public service perspective
5. to communicate and interact productively with a diverse and changing workforce and citizenry.

The ASU MPA curriculum goes further and also requires competency in:

1. interpersonal and communication skills
2. ethical leadership
3. financial fluency in the public institution

Specifically, this course follows NASPAA Standard 1.2, by providing observable programs goals, objectives and outcomes. Further, the comprehensive nature of the case studies required as part of the professional portfolio, necessitates students demonstrate competency across the areas prescribed by NASPAA Standard 5.1, and additional competencies prescribed by the ASU MPA program. This layered approach to assessing student learning outcomes requires students and faculty to evaluate a student's skills and abilities in the core areas of public administration. The portfolio will provide evidence of development in writing, problem solving, and critical analysis through the submission of exemplar assignments. The combination of all of the elements in the portfolio demonstrates the overall academic development of the student and serves as an important vehicle for assessing student learning outcomes.

**C. Student population served.**

MPA students

**D. Rationale for the level of the course (lower, upper, or graduate).**

This course is appropriate for students that are nearing completion of the MPA program and serves as a graduate capstone requirement in lieu of comprehensive examinations.

**16. Outline** (The course outline should be topical by weeks and should be sufficient in detail as to allow for judgment of the content of the course.)

The capstone nature of the course does not require students to follow a weekly sequence. Instead, still will be expected, at a minimum, to provide artifacts from each of the core courses.

**PORTFOLIO ELEMENTS:**

1. Initial professional resume
2. Initial Skills Self-Assessment
3. Final Skills Self-Assessment
4. Examples of assignments completed in each core course (minimum of 10)
5. Updated professional resume
6. Completed 3 comprehensive case studies exhibiting competency in each of the areas describe in Section 15B above.

**17. Course requirements** (e.g. research papers, projects, interviews, tests, etc.)

Electronic portfolio

**18. Special features** (e.g. labs, exhibits, site visitations, etc.)

NONE

**19. Required reading**

NONE

**20. Department staffing and classroom/lab resources** (Will this require additional faculty, supplies, etc.?)

NO

**21. What is the primary goal of this course?**

Provide MPA students an opportunity to demonstrate a summative learning experience that draws on all of the core competencies covered in the MPA program.

**22. If this proposal is for a general education course, please check the primary goal this course addresses:**

- |                                                                                         |                                                                                         |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> Communicating effectively                                      | <input type="checkbox"/> Thinking Critically                                            |
| <input type="checkbox"/> Using mathematics                                              | <input type="checkbox"/> Using Technology                                               |
| <input type="checkbox"/> Understanding global issues                                    | <input type="checkbox"/> Understanding interdependence                                  |
| <input type="checkbox"/> Developing a life-long appreciation of the arts and humanities | <input type="checkbox"/> Developing a strong foundation in the social sciences          |
| <input type="checkbox"/> Using science to accomplish common goals                       | <input type="checkbox"/> Providing foundations necessary to achieve health and wellness |

**23. Considering the indicated primary goal, provide up to three outcomes that you expect of students after completion of this course. For example, what will students who meet this goal know or be able to do as a result of this course?**

**Primary Goal Outcome #1:** Demonstrate mastery of the core competencies required for managing public and non-profit organizations.

**Learning Activity:**

**Assessment Tool:** Production of portfolio containing designated items.

**From the most current electronic version of the bulletin, copy all bulletin pages that this proposal affects and paste it to the end of this proposal.**

**To copy from the bulletin:**

1. Minimize this form.
2. Go to <http://registrar.astate.edu/bulletin.htm> and choose either undergraduate or graduate.
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6. Click on "copy".
7. Minimize the bulletin and maximize this page.
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10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

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**2012-2013 Graduate Bulletin, p 225**

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8. Right-click immediately below this area and choose "paste".
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10. For deletions, strike through the text, change the font color, and enlarge the font size. Make it noticeable.

**POSC 6573 Grant Writing and Administration** Emphasis is placed on a step-by step process through all stages of writing successful proposals and on providing technical expertise and knowledge through campus outreach efforts of faculty and students to strengthen the nonprofit and nongovernmental organizations that serve the local communities.

**POSC 6593 Seminar in Human Resources Management** An examination of policies, procedures, strategies, laws and regulations implemented in human resources management for public and nonprofit organizations.

**POSC 6613 Administrative Leadership** A study of the techniques and practices that successful managers employ to get their work done through politicians, subordinates, and citizens. Emphasis is placed on issues that are faced by first time managers.

**POSC 6623 Administrative Ethics** An analysis of the theoretical, philosophical, and practical tools needed for making appropriate decisions in the role of an administrator in a public or not for profit organization.

**POSC 6633 Public Information Management** An analysis of how various governmental units juggle the competing demands of sound management and playing politics when devising communication strategies with emphasis placed on crisis management and how information is marketed for maximum impact.

**POSC 6653 Designed for students to construct a professional portfolio to showcase, in a single document, the skills, competencies, and knowledge they have developed over their time in the MPA program.**

**Political Theory**

**POSC 5453 Analysis of Contemporary Political Theory** An analytical and theoretical examination of one or more theoretical political issues of the 20th and 21st centuries. Topics of analysis may include democracy, justice, community, political ethics, multiculturalism, or the theories of a particular political philosopher or school of political philosophy. Content will vary.

**POSC 6413 Seminar in Political Theory** An examination of selected works of one or more major political philosophers.

## New/Special Course Proposal-Bulletin Change Transmittal Form

☒ **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

☒ **New Course** or ☐ **Special Course (Check one box)**

Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary.

Department Curriculum Committee Chair	Date	COPE Chair (if applicable)	Date
Department Chair	Date	General Education Committee Chair (if applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	Date
		Vice Chancellor for Academic Affairs	Date

<b>1. Proposed Course Prefix and Number (For variable credit courses, indicate variable range.)</b>  POSC 6643
<b>2. Course Title – if title is more than 30 character (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).</b>  Nonprofit Management
<b>3. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio problems, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.</b>  Lecture
<b>4. What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental)?</b>  Standard Letter
<b>1. Is this course dual listed (undergraduate/graduate)?</b>  NO
<b>6. Is this course cross listed? (If it is, all course entries must be identical including course descriptions. It is important to check the course description of an existing course when adding a new cross listed course.)</b>  No
<b>7. Brief course description (40 words or less) as it should appear in the bulletin.</b>  Overview of both the practical and theoretical principles utilized in leading nonprofit organizations. Specific attention given to the use engaging techniques to examine the areas of managing people, finance, technology, fundraising, marketing, and board/volunteer development from the nonprofit perspective.
<b>8. Indicate all prerequisites and if this course is restricted to a specific major, which major. (If a student does not have the prerequisites or does not have the appropriate major, they will not be allowed to register).</b>  NA
<b>9. Course frequency (e.g. Fall, Spring, Summer, or Demand). Not applicable to Graduate courses.</b>

<b>10. Contact Person</b> (Name, Name of Institution, Address, Email Address, Phone Number) William P. McLean, Arkansas State University, P.O. Box 1750, State University, AR 72467, <a href="mailto:wmclean@astate.edu">wmclean@astate.edu</a> , (870) 972-3048
<b>11. Proposed Starting Term/Year</b> Summer 2013 (on-line)
<b>12. Is this course in support of a new program? If yes, what program?</b> NO
<b>13. Does this course replace a course being deleted?</b> No  <b>b. If yes, what course?</b>  <b>c. Has this course number been used in the past?</b>  <b>Attach Course Deletion Proposal-Bulletin Change Transmittal Form.</b>
<b>14. Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.</b> No
<b>15. Justification should include:</b> <b>A. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).</b> Students can be expected to acquire an understanding of the theories and basic practices of nonprofit management, their fluidic nature, major concepts, issues and features.  <b>B. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.</b> This course fits well with the MPA program goals of preparing students to lead and manage public and nonprofit organizations.  <b>C. Student population served.</b> MPA students in the traditional and on-line programs.  <b>D. Rationale for the level of the course (lower, upper, or graduate).</b> This course fits with the mission of the Masters of Public Administration Program at Arkansas State University which exists to enhance individual, organizational, social and governmental capacity in the public and non-profit sectors.
<b>16. Outline</b> (The course outline should be topical by weeks and should be sufficient in detail as to allow for judgment of the content of the course.) WEEK 1—Introduction and syllabus distribution. The Nature of the nonprofit world. WEEK 2—The distinctiveness of the nonprofit sector WEEK 3—A focus on expressive functions—political theories WEEK 4—A focus on expressive functions—community theories WEEK 5—A focus on instrumental functions—economic theories WEEK 6—A focus on instrumental functions—entrepreneurial theories WEEK 7—Integrating theories—implications for governance and management WEEK 8—Shifting roles, opposing tensions and divergent views of the sector (MID-TERM EXAM) WEEK 9—The changing landscape of institutional philanthropy WEEK 10—Replicating and scaling up results WEEK 11—Accountability, legitimacy and performance measurement WEEK 12—Global trends and comparative perspectives of the nonprofit sector WEEK 13—Both service and change: transforming the sector from within (AGENCY ANALYSIS DUE) WEEK 14—Challenges facing the nonprofit sector; final presentations (portfolios due)
<b>17. Course requirements</b> (e.g. research papers, projects, interviews, tests, etc.) Research paper, professional portfolio, group project, non profit agency interviews and assessments, discussion boards, exams
<b>18. Special features</b> (e.g. labs, exhibits, site visitations, etc.) None
<b>19. Required reading</b> Rodriguez Heyman, Darian (Ed.) (2011). Nonprofit Management 101: A Complete and Practical Guide for Leaders and Professionals. San Francisco: Jossey-Bass. Additional supplementary articles and materials.
<b>20. Department staffing and classroom/lab resources</b> (Will this require additional faculty, supplies, etc.?)

NO

**21. What is the primary goal of this course?**

Equip pre-service and mid-career students with sound management skills and a public/non-profit philosophy to lead public institutions of the future with integrity, innovation, excellence and professionalism.

**22. If this proposal is for a general education course, please check the primary goal this course addresses:**

- |                                                                                         |                                                                                         |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> Communicating effectively                                      | <input type="checkbox"/> Thinking Critically                                            |
| <input type="checkbox"/> Using mathematics                                              | <input type="checkbox"/> Using Technology                                               |
| <input type="checkbox"/> Understanding global issues                                    | <input type="checkbox"/> Understanding interdependence                                  |
| <input type="checkbox"/> Developing a life-long appreciation of the arts and humanities | <input type="checkbox"/> Developing a strong foundation in the social sciences          |
| <input type="checkbox"/> Using science to accomplish common goals                       | <input type="checkbox"/> Providing foundations necessary to achieve health and wellness |

**23. Considering the indicated primary goal, provide up to three outcomes that you expect of students after completion of this course. For example, what will students who meet this goal know or be able to do as a result of this course?****Primary Goal Outcome #1:**

Master the ability to analyze and evaluate the relationships, challenges, and tensions that occur within nonprofit organizations; and identify strategies to help organizations overcome those issues.

**Learning Activity:**

Agency interviews and assessments. Students will select and interview the executive director and at least one staff member of a nonprofit organization. Using concepts from the text, students will analyze and evaluate the organization on a number of factors.

**Assessment Tool:**

Students will generate a final agency report. The report will analyze and evaluate the relationships, challenges, and tensions that are present in the nonprofit organization and provide prescriptive recommendations to aid the organization going forward.

**24.**

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**2012-2013 Graduate Bulletin, p 225****To copy from the bulletin:**

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**POSC 6573 Grant Writing and Administration** Emphasis is placed on a step-bystep process through all stages of writing successful proposals and on providing technical expertise and knowledge through campus outreach efforts of faculty and students to strengthen the nonprofit and nongovernmental organizations that serve the local communities.

**POSC 6593 Seminar in Human Resources Management** An examination of policies, procedures, strategies, laws and regulations implemented in human resources management for public and nonprofit organizations.

**POSC 6613 Administrative Leadership** A study of the techniques and practices

that successful managers employ to get their work done through politicians, subordinates, and citizens. Emphasis is placed on issues that are faced by first time managers.

**POSC 6623 Administrative Ethics** An analysis of the theoretical, philosophical, and practical tools needed for making appropriate decisions in the role of an administrator in a public or not for profit organization.

**POSC 6633 Public Information Management** An analysis of how various governmental units juggle the competing demands of sound management and playing politics when devising communication strategies with emphasis placed on crisis management and how information is marketed for maximum impact.

**POSC 6643 Nonprofit Management** Overview of both the practical and theoretical principles utilized in leading nonprofit organizations. Specific attention given to the use engaging techniques to examine the areas of managing people, finance, technology, fundraising, marketing, and board/volunteer development from the nonprofit perspective.

**Political Theory**

**POSC 5453 Analysis of Contemporary Political Theory** An analytical and theoretical examination of one or more theoretical political issues of the 20th and 21st centuries. Topics of analysis may include democracy, justice, community, political ethics, multiculturalism, or the theories of a particular political philosopher or school of political philosophy. Content will vary.

**POSC 6413 Seminar in Political Theory** An examination of selected works of one or more major political philosophers.

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ENTER DATE...

**Department Chair:**

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**College Curriculum Committee Chair**

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**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1. Program and/or Course Title, Prefix and Number

BIO 6033 Biosafety and Ethics in Research

### 2. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599



State University

AR 72467

rlj@astate.edu

(870) 972-2366

**3. Last semester student can graduate with this degree and/or last semester course will be offered**  
Spring 2013

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PSM Biotechnology

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Not at all.

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BIO 4063/5063 Biosafety and Ethics in Research

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**BIO 638V Thesis**

**BIO 680V Independent Study**

**BIO 7161 Responsible Conduct in Research** A one credit hour course providing training on ethical behavior in sciences.

**Botany**

**BIO 5511 Laboratory for Plant Physiology** Three hours per week. To be taken concurrently with BIO 5513. (Course fee, \$20)

**BIO 5513 Plant Physiology** General principles of conduction, cellular reactions, respiration, growth, photosynthesis, movement, hormones, and metabolism in plants. Lecture three hours per week. Prerequisites: BIO 1501, 1503; CHEM 3103, CHEM 3101.

Code # 

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ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1. Program and/or Course Title, Prefix and Number

BIO 6103 Genetic Engineering

### 2. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

**3. Last semester student can graduate with this degree and/or last semester course will be offered**  
Spring 2013

**4. Student Population**

a. The program and/or course was initially created for what student population?

PSM Biotechnology

b. How will deletion of this program and/or course affect those students?

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**5.**

**a. How will this affect the department?**

Not at all.

**b. Does this program and/or course affect another department?** No

**c. If yes, please provide contact information from the Dean, Department Head, and/ or Program Director whose area this affects.**

Enter text...

**6. (For courses only) Will another course be substituted?** Yes

**If yes, what course?**

BIO 4053/5053 Applications in Biotechnology

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Revised 1/17/13

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**Vice Chancellor for Academic Affairs**

### 1. Program and/or Course Title, Prefix and Number

BIO 6133 Bioinformatics and Applications

### 2. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

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PSM Biotechnology

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**5.**

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Not at all.

**b. Does this program and/or course affect another department?** No

**c. If yes, please provide contact information from the Dean, Department Head, and/ or Program Director whose area this affects.**

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BIO 4033/5033 Applications in Biotechnology

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**BIO 638V Thesis**

**BIO 680V Independent Study**

**BIO 7161 Responsible Conduct in Research** A one credit hour course providing training on ethical behavior in sciences.

**Botany**

**BIO 5511 Laboratory for Plant Physiology** Three hours per week. To be taken concurrently with BIO 5513. (Course fee, \$20)

**BIO 5513 Plant Physiology** General principles of conduction, cellular reactions,

Revised 1/17/13

respiration, growth, photosynthesis, movement, hormones, and metabolism in plants. Lecture three hours per week. Prerequisites: BIO 1501, 1503; CHEM 3103, CHEM 3101.

Code # 

## Program and/or Course Deletion Proposal-Bulletin Change Transmittal Form

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ENTER DATE...

**Department Curriculum Committee Chair**

ENTER DATE...

**COPE Chair (if applicable)**

ENTER DATE...

**Department Chair:**

ENTER DATE...

**General Education Committee Chair (If applicable)**

ENTER DATE...

**College Curriculum Committee Chair**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1. Program and/or Course Title, Prefix and Number

BIO 6144 Laboratory in BioTechniques I

### 2. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

**3. Last semester student can graduate with this degree and/or last semester course will be offered**  
Spring 2013

**4. Student Population**

a. The program and/or course was initially created for what student population?

PSM Biotechnology

b. How will deletion of this program and/or course affect those students?

This course is being replaced with BIO 4152/5152 to enable students completing a proposed BS Biotechnology program to enroll.

**5.**

**a. How will this affect the department?**

Not at all.

**b. Does this program and/or course affect another department?** No

**c. If yes, please provide contact information from the Dean, Department Head, and/ or Program Director whose area this affects.**

Enter text...

**6. (For courses only) Will another course be substituted?** Yes

**If yes, what course?**

BIO 4152/5142 Laboratory in BioTechniques I

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PAGES 284-285 OF GRADUATE BULLETIN DELETED COURSES IN BOLD AND ENLARGED

**BIO 5353 Field Techniques for Marine Mammals** Field experience in describing and analyzing marine behavior of dolphins and other marine mammals. Prerequisite: Permission of instructor.

**BIO 5601 Laboratory for Limnology** Two hours per week. To be taken concurrently with BIO 5603. (Course fee, \$20)

**BIO 5603 Limnology** Physicochemical conditions of fresh water, and their effects on aquatic life; plankton analysis and bottom fauna studies. Lecture three hours per week. Prerequisites: BIO 1301 , 1303; CHEM 1023, CHEM 1021.

**BIO 5023 History of Biological Ideas** This course analyzes the history of biological ideas such as evolution, heredity, spontaneous generation, and molecular biology, aimed at a better understanding not only of historical background of current research but also on how science proceeds. Prerequisites will be at least two of the following courses: BIO 3023, BIO 3013, BIO 3033, or permission of the instructor.

**BIO 544V Special Topics in the Biological Sciences** Topical or technique driven seminar relating to the biological sciences that will lead to the training of students in a body of work, such as newly developed research technique/approach. Number of credit hours will vary. Prerequisites: consent of the instructor.

**BIO 5683 Biological Data Analysis** Use of statistical tests and models (regression, ANOVA, generalized linear models, and mixed-effect models, PCA) to analyze ecological/ biological data applications using the R statistical program. Pre-requisites: Applied Statistics I or equivalent.

**BIO 6001 Biological Seminar** Required of all graduate students.

**BIO 6003 Scientific Methods and Research Design** A focus on the understanding and development of the scientific method as it pertains to research. Required of the graduate life sciences major, including students studying within the Biology, Botany, Wildlife Management and Zoology emphasis.

**BIO 6033 Biosafety and Ethics in Research** Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research.

**BIO 6103 Genetic Engineering** An introduction to genetic engineering through an overview of the types of experiments that recombinant DNA makes possible, and an explanation of the information that such experiments have revealed. Lecture three hours per week.

**BIO 6113 Advanced Cell Biology** Study of recent advances in cell biology through critical analysis of current literature. Focusing on eukaryotic cell structure and function, topics may include, but not be restricted to, cellular structures and organelles; cell cycling; signal transduction; gene regulation; and intracellular trafficking. Prerequisites: A course in cell biology or permission of the professor

**BIO 6013 Evolutionary Biology** A summary of current theories concerned with evolution of biological organisms. An elective course particularly directed to the needs of biological science majors including students of Biology, Botany, Zoology, and Wildlife Management. (Fall of even years)

285

**BIO 6123 Specialized Biochemistry** An advanced study of biochemical pathways leading to specialized biologically active metabolites. Emphasis will be on specialized pathways in plants and their counterparts in animals, and microorganisms.

**BIO 6143 Introduction to Biotechnology & Research Design** Study of molecular biological techniques and experimental designs through oral and written review of scientific literature. Career preparation by construction of curriculum vitae and work portfolios. Prerequisites:



Students must be graduate students in a biological field of science.

**BIO 6144 Laboratory in BioTechniques I** Laboratory techniques in protein chemistry

and analysis, cell culture, and DNA/RNA isolation techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry.

**BIO 6154 Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA

analysis and applications, including PCR, real-time PCR, recombinant DNA and the production of gene expression products.

**BIO 6196 Internship in Biotechnology** Participation in an internship with a private business, research center or public agency in the field of biotechnology. Included is a minimum of 300 work hours. Internship may be a volunteer or paid position. Included is the completion and approval of a synthesis paper covering methods and applications of molecular tools used during this internship. Prerequisite: BIO 6144, BIO 6154

**BIO 6301 Aquatic Biology** The collection, identification, and study of aquatic invertebrate and vertebrate animals with emphasis on life history, ecology, and importance to man. Lecture one hour per week. Prerequisites: BIO 1503, 1501, 1303, 1301.

**BIO 6302 Laboratory for Aquatic Biology** Four hours per week. To be taken concurrently with BIO 6301. (Course fee, \$20)

**BIO 6371 Practicum I** Practicum in biology requires the completion of a minor project in the biological sciences as approved by the student's advisory committee. To be completed by MA students as part of their core curriculum.

**BIO 6372 Practicum II** Practicum in biology requires the completion of a major project in the biological sciences as approved by the student's advisory committee. To be completed by MA students as part of their core curriculum.

**BIO 638V Thesis**

**BIO 680V Independent Study**

**BIO 7161 Responsible Conduct in Research** A one credit hour course providing training on ethical behavior in sciences.

**Botany**

**BIO 5511 Laboratory for Plant Physiology** Three hours per week. To be taken concurrently with BIO 5513. (Course fee, \$20)

**BIO 5513 Plant Physiology** General principles of conduction, cellular reactions, respiration, growth, photosynthesis, movement, hormones, and metabolism in plants. Lecture three hours per week. Prerequisites: BIO 1501, 1503; CHEM 3103, CHEM 3101.

Code # 

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ENTER DATE...

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ENTER DATE...

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ENTER DATE...

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**College Curriculum Committee Chair**

ENTER DATE...

**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1. Program and/or Course Title, Prefix and Number

BIO 6154 Laboratory in BioTechniques II

### 2. Contact Person (Name, Email Address, Phone Number)

Ronald Johnson

Arkansas State University

Dept. of Biological Sciences

P.O.Box 599

State University

AR 72467

rlj@astate.edu

(870) 972-2366

**3. Last semester student can graduate with this degree and/or last semester course will be offered**  
Spring 2013

**4. Student Population**

a. The program and/or course was initially created for what student population?

PSM Biotechnology

b. How will deletion of this program and/or course affect those students?

This course is being replaced with BIO 4154/5154 to enable students completing a proposed BS Biotechnology program to enroll.

**5.**

**a. How will this affect the department?**

Not at all.

**b. Does this program and/or course affect another department?** No

**c. If yes, please provide contact information from the Dean, Department Head, and/ or Program Director whose area this affects.**

Enter text...

**6. (For courses only) Will another course be substituted?** Yes

**If yes, what course?**

BIO 4154/5142 Laboratory in BioTechniques II

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 \_\_X\_\_ Graduate Council Print 1 copy for signatures and send 1 electronic copy to [mmcginnis@astate.edu](mailto:mmcginnis@astate.edu)

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Department Chair	Date	General Education Committee Chair (if applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	Date
		Vice Chancellor for Academic Affairs	Date

<b>1. Program and/or Course Title, Prefix and Number</b> POSC 6323, Revolutions and Foreign Policy
<b>2. Contact Person</b> (Name, Name of Institution, Address, Email Address, Phone Number) Levenbach, ASU-J, POB 1750, State University, AR 42467, <a href="mailto:fidel@astate.edu">fidel@astate.edu</a> , 870.972.2147
<b>3. Last semester student can graduate with this degree and/or last semester course will be offered</b> Course was last offered in spring 2011. Not sure if any students who took the course then are still in the program but, if so, department will recognize the course work for the degree.
<b>4. Student Population</b> The program and/or course was initially created for what student population? How will deletion of this program and/or course affect those students? MA students in political science. A course on related matter (POSC 6243, Political Violence) is being proposed under the comparative politics subfield where it is more appropriately situated. Deleting this course, developed by a since-retired professor, and adding the new Political Violence course only advantages MA students.
<b>5. How will this affect the department? Does this program and/or course affect another department? If yes, please provide contact information from the Dean, Department Head, and/ or Program Director whose area this affects.</b> Reduces international relations subfield by one course, but comparative politics (where department staffing is stronger) gets one additional course.
<b>6. (For courses only) Will another course be substituted? If yes, what course?</b> POSC 6243, Political Violence (proposed).

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## Graduate Bulletin 2012-2013, p 224

**POSC 6223 Seminar in Comparative Politics** A review of the theory and method of comparative political study with an analysis of governmental institutions in Western and non-Western countries.

**POSC 6233. Seminar on Politics and Religion** Investigates variations in the extent to which, and the means by which, faith and faith institutions influence politics.

### **International Relations**

**POSC 5313 International Organization** Development, structure, and politics of international organizations such as the United Nations.

**POSC 6313 Contemporary International Relations** A study of contemporary international problems and issues as they are related to the foreign policies of major powers.

~~**POSC 6323 Revolutions and Foreign Policy** A study of the revolutionary process~~

~~in selected countries and its implications for foreign policy.~~

**POSC 6333 International Relations Theory** An in-depth examination of theories of international relations, such as realism, balance-of-power, pluralism, and globalism.

**POSC 6343 The Environment and World Politics** A study of the politics of the global environment, including disputes between industrialized countries and the Third World over population policies, deforestation, global warming, and use of the oceans.

### **Public Administration**

**POSC 5533 Environmental Law and Administration** Overview of current environmental law, its administration and enforcement.

**POSC 6503 Managing Local Government** An analysis of how public administrators manage municipal government, with special reference to such topics as community and economic development, housing, recreation, public safety, waste disposal, etc.

**POSC 6513 Administrative Law** A study of the rules and procedures of bureaucratic organizations and their applications.

**POSC 6523 Decision Making** An examination of decision-making models for individuals, small groups, and large organizations in the public sector.

**POSC 6533 Public Policy Analysis and Evaluation** Provides a theoretical and technical framework for understanding the fundamentals of policy analysis and evaluation.

**POSC 6543 Administrative Behavior** An examination of administrative structures and patterns of behavior in public sector organizations.

**POSC 6553 Public Budgeting and Finance** A study of political processes and administrative methods associated with governmental revenues, expenditures, and fiscal control of public organizations.

**POSC 6563 Seminar in Public Administration** An examination of the development of public administration as a profession; its history, political environment, ethics, and its method.

Code #

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**Bulletin Change**

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College Curriculum Committee Chair

Date

Undergraduate Curriculum Council Chair

Date

College Dean

Date

Graduate Curriculum Committee Chair

Date

Vice Chancellor for Academic Affairs

Date

**1. Contact Person** (Name, Name of Institution, Address, Email Address, Phone Number)Levenbach, Political Science, ASU-J, POB 1750, State University, AR 72467, [fidel@astate.edu](mailto:fidel@astate.edu), 870.972.2147**2. Proposed Change**

MA in Political Science: Substantially changes the program design and requirements, admissions procedures, and articulation of program mission.

**3. Effective Date**

fall 2013

**4. Justification**

The MA Committee had extensive meetings to assess strengths and weaknesses in the current program and agreed, unanimously in almost every case, on changes that would make improve the quality of student learning experiences and improve the value of the degree.

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## **MASTER OF ARTS DEGREE WITH A MAJOR IN HISTORY, GLOBAL HISTORY EMPHASIS**

### **Admission Requirements**

Applicants must have completed at least 21 undergraduate semester hours in history, including three semester hours of freshman-level world history and nine semester hours of upper-division world history. Applicants for the M.A. in History, Global History emphasis, will be evaluated by the department for academic qualification based upon their undergraduate academic records, GRE scores and letters of reference. In addition to meeting the Graduate School's requirements applicant's must:

1. Submit acceptable GRE scores
  2. Submit two letters of reference from professors familiar with the applicant's work.
- Holders of the M.A. in History from ASU or another accredited graduate program may apply up to 15 hours of earned credit from a previous degree program to the completion of this degree, provided that those credits were earned within the 6-year limit for completion of the second degree.

### **Courses required of all candidates**

HIST 6003 Introduction to Graduate Study  
HIST 6513, Theory and Practice of Global History  
HIST 5613, Seminar in Global History  
9 hours of Global History courses  
15 hours of History courses

Course work must include at least one HIST 6253, Graduate Readings Seminar and one HIST 6263, Graduate Research Seminar.

**Minimum hours required for this program: 33**

## **MASTER OF ARTS DEGREE WITH A MAJOR IN POLITICAL SCIENCE**

### **Admission Requirements**

~~The Master of Arts degree is designed to develop students' analytical skills and to deepen their substantive knowledge in political science. Students who meet the admission requirements of the Graduate School and the specific program requirements may specialize in any of four subfields: American politics, comparative politics, international relations, or political theory.~~

### **Courses required of all candidates**

~~POSC 6003, Techniques of Political and Public Administration Research~~

~~Nine hours of major study in American politics, comparative politics, international relations, or political theory~~

~~Six hours of minor study in American politics, comparative politics, international relations, public administration, or political theory~~

~~POSC 6656, Thesis, AND six hours of approved electives, OR 12 hours of approved Electives~~

## **Mission**

The mission of the MA program is to prepare students for future educational and career opportunities by equipping them with substantive knowledge and methodological skills necessary to conduct research on political phenomena.

## **Admission**

Beyond the admission materials required by the Graduate School, students interested in the MA in political science should submit directly to the MA Director the following materials:

- A statement of interest outlining the applicant's goal past the MA and the types of work he or she wishes to pursue in the program to realize that goal
- A résumé
- An academic writing sample
- GRE scores on the general test and, for international students, TOEFL scores

- Two letters of reference from people who can evaluate the applicant's academic potential

Except under special circumstances, students must begin their MA studies in a fall semester so as to participate in their graduate education as part of a cohort. Applications received by April 30 will receive full review; applications for the fall semester will not be considered if received after August 1. Applicants who seek a graduate assistantship must submit their materials before March 1.

### **Program of Study**

Students enrolled in the program will choose to concentrate in one of four subfields in political science—US politics, comparative politics, international relations, or political theory. The student's program will be composed of 15 hours in the chosen concentration area (including 6 hours of thesis work) and two courses in political science research techniques; the remaining 9 hours will be composed of elective hours in political science (though, subject to prior approval of the MA Committee, a student may propose to take courses in cognate fields when doing so would complement graduate study in political science).

### **Degree Requirements**

- POSC 6003, Techniques of Political and Public Administration Research (to be completed in the first fall semester)
- POSC 6013, Advanced Political Analysis (in the semester immediately following POSC 6003)
- 9 hours of course work in one of four subfields—US politics, comparative politics, international relations, or political theory (the concentration field)
- POSC 665V, 6 hours of thesis work in the concentration field
- 9 hours of elective study in political science

**Minimum hours required for this program: 30**

Code #

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**Bulletin Change**

Please attach a copy of all catalogue pages requiring editorial changes.

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 Department Curriculum Committee Chair

Date

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Date

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 Undergraduate Curriculum Council Chair

Date

---

 College Dean

Date

---

 Graduate Curriculum Committee Chair

Date

---

 Vice Chancellor for Academic Affairs

Date

**1. Contact Person** (Name, Name of Institution, Address, Email Address, Phone Number)

Dr. Russell Jones, College of Business, BU 205A, [rjones@astate.edu](mailto:rjones@astate.edu), 972-3988

**2. Proposed Change**

Change required course for MIS concentration in the MBA program

**3. Effective Date**

**August, 2013**

**4. Justification**

This course better meets both the needs of students interested in the MIS concentration and the program objectives

On Page 85 of the current bulletin

MASTER OF BUSINESS ADMINISTRATION  
CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS

The MBA with Concentration in MIS program is designed to allow graduate business students the ability to select in-depth coverage of the core components of today's IT field while furthering their business administration academic career. Students will complete the 27 hours within the MBA core (which includes two graduate level MIS course) and 9 additional hours of graduate level MIS coursework.

Program of Study

Each student within the program will complete the following 27 hours within the MBA core:

ACCT 6003, Accounting for Planning and Control  
ECON 6313, Managerial Economics  
FIN 6723, Corporate Financial Management  
IBS 6593, Global Strategic Initiatives  
MIS 6413, Management Information Systems  
MGMT 6403, Seminar in Organizational Behavior and Leadership  
MGMT 6423, Strategic Management  
MKTG 6223, Strategic Marketing  
MIS 6543, Business Analytics

In addition, students will complete the following 9 hours of MIS courses:

MIS 6453, Electronic Commerce  
~~MIS 6463, Information Systems Analysis & Design~~  
**MIS 6523, Simulation for Predictive Decision-Making**  
Any 6000-level MIS course

Total Program Coursework: 36 Hours

Code #

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Department Chair	Date	General Education Committee Chair (if applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	Date
		Vice Chancellor for Academic Affairs	Date

<b>1. Contact Person</b> (Name, Name of Institution, Address, Email Address, Phone Number) Catherine C Reese, ASU-J, PO Box 1750, State University, AR 72467-1750, ccreese@astate.edu, 870-972-3048
<b>2. Proposed Change</b> Master of Public Administration: (1) Reinstate personal statement as an admission requirement and (2) clarify transfer credit possibilities
<b>3. Effective Date</b> August 2013
<b>4. Justification</b> (1) We had removed it last year but found that it really helped with borderline admissions cases and (2) our national accreditation depends on this

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## PAGE 66—THIS IS FOR THE ONLINE MPA

### MASTER OF PUBLIC ADMINISTRATION IN PUBLIC ADMINISTRATION

ONLINE Large Scale Distance Education Program

The online Master of Public Administration is a 36 hour degree program consisting of the following courses:

#### Admissions Requirements

The Master of Public Administration at Arkansas State University exists to enhance individual, organizational, social and governmental capacity in the public and non-profit sectors by equipping pre-service and mid-career students with sound management skills and a public/non-profit philosophy to lead public institutions of the future with integrity, innovation, excellence and professionalism.

To be considered for admission to the MPA program, in addition to meeting Graduate School admission requirements applicants must provide:

- Three letters of recommendation; **and**
  - **A statement of purpose indicating why the student wishes to undertake the MPA**

Moreover, an applicant's undergraduate background must include courses with grades of "C" or higher in American national government and principles of economics or their equivalents. If the student is deficient, these courses must be taken in addition to the graduate course requirements specified below. Such undergraduate deficiencies must be completed prior to or during the first graduate enrollment period.

For unconditional admission, a student must have a minimum cumulative undergraduate grade point average of 3.0 (or 3.2 in the last 60 hours).

**Any potential graduate transfer credits must be from another NASPAA (National Association of Schools of Public Affairs and Administration)-accredited program to be eligible for consideration. Per Graduate School guidelines, to gain unconditional admission a student must also have a 3.0 GPA for any prior graduate courses or programs. Only 9 hours of transfer work will be accepted.**

## **PAGE 208—THIS IS FOR THE IN-PERSON MPA**

### **MASTER OF PUBLIC ADMINISTRATION DEGREE**

#### **Admissions Requirements**

The Master of Public Administration at Arkansas State University exists to enhance individual, organizational, social and governmental capacity in the public and non-profit sectors by equipping pre-service and mid-career students with sound management skills and a public/non-profit philosophy to lead public institutions of the future with integrity, innovation, excellence and professionalism.

To be considered for admission to the MPA program, in addition to meeting Graduate School admission requirements applicants must provide:

- Three letters of recommendation; **and**
  - **A statement of purpose indicating why the student wishes to undertake the MPA**

Moreover, an applicant's undergraduate background must include courses with grades of "C" or higher in American national government and principles of economics or their equivalents. If the student is deficient, these courses must be taken in addition to the graduate course requirements specified below. Such undergraduate deficiencies must be completed prior to or during the first graduate enrollment period.

For unconditional admission, a student must have a minimum cumulative undergraduate grade point average of 3.0 (or 3.2 in the last 60 hours).

**Any potential graduate transfer credits must be from another NASPAA (National Association of Schools of Public Affairs and Administration)-accredited program to be eligible for consideration. Per Graduate School guidelines, to gain unconditional admission a student must also have a 3.0 GPA for any prior graduate courses or programs. Only 9 hours of transfer work will be accepted.**

Code # 

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**College Curriculum Committee Chair**

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**Undergraduate Curriculum Council Chair**

ENTER DATE...

**College Dean**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1.Contact Person (Name, Email Address, Phone Number)

Catherine C. Reese, [ccrease@astate.edu](mailto:ccrease@astate.edu), x-3428

### 2.Proposed Change

Add two new courses for the NASPAA-accredited on-line MPA program and set the maximum credits for internship 660x at three; program hours unchanged.

### 3.Effective Date

summer 2013

### 4.Justification

Adds an area of competency to students' professional development and provides a capstone measure of both student learning and program performance.

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**2012-2013 Bulletin, pp 66-67**

**MASTER OF PUBLIC ADMINISTRATION IN  
PUBLIC ADMINISTRATION**

**ONLINE Large Scale Distance Education Program**

The online Master of Public Administration is a 36 hour degree program consisting of the following courses:

**Admissions Requirements**

The Master of Public Administration at Arkansas State University exists to enhance individual, organizational, social and governmental capacity in the public and non-profit sectors by equipping pre-service and mid-career students with sound management skills and a public/non-profit philosophy to lead public institutions of the future with integrity, innovation, excellence and professionalism.

To be considered for admission to the MPA program, in addition to meeting Graduate School admission requirements applicants must provide:

- Three letters of recommendation;

Moreover, an applicant's undergraduate background must include courses with grades of "C" or higher in American national government and principles of economics or their equivalents.

If the student is deficient, these courses must be taken in addition to the graduate course requirements specified below. Such undergraduate deficiencies must be completed prior to or during the first graduate enrollment period.

For unconditional admission, a student must have a minimum cumulative undergraduate grade point average of 3.0 (or 3.2 in the last 60 hours).<sup>67</sup>

For conditional admission, academic proficiency must be established by a minimum cumulative undergraduate grade point average of 2.75

Courses required all of all candidates:

POSC 6563 Seminar in Public Administration

POSC 6533 Public Policy Analysis & Evaluation

POSC 6553 Public Budgeting & Finance

POSC 6543 Administrative Behavior

POSC 6003 Techniques of Political & Public Administration Research

POSC 6633 Public Information Management

POSC 6593 Seminar in Human Resources Management

POSC 6573 Grant Writing & Administration

POSC 6613 Administrative Leadership

POSC 6623 Administrative Ethics



Six hours chosen from the three options listed below

~~POSC 6523 Decision Making~~

~~POSC 6503 Managing Local Government~~

POC 6643 Non-Profit Management

6653 MPA Capstone Experience

OR

POSC 6603-6, Internship in Public Administration\*

POSC 6653 MPA Capstone Experience

OR

POSC 6656, Thesis in Public Administration

\*Internships are strongly encouraged for all pre-service students and are normally undertaken after a student has completed 18 credit hours. Internships are open only to students with a grade point average of no less than 3.0.

\*All students are required to complete and submit a set of comprehensive case study analyses during their final enrollment period. Case studies and instructions for completion are provided when students file for graduation.

Code # 

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**Undergraduate Curriculum Council Chair**

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**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1.Contact Person (Name, Email Address, Phone Number)

Catherine C. Reese, [ccrease@astate.edu](mailto:ccrease@astate.edu), x-3428

### 2.Proposed Change

Add two new courses for the NASPAA-accredited traditional MPA program and set the maximum credits for internship 660x at three; program hours unchanged.

### 3.Effective Date

summer 2013

### 4.Justification

Adds an area of competency to students' professional development and provides a capstone measure of both student learning and program performance.

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**2012-2013 Bulletin, pp. 208-209**

**MASTER OF PUBLIC ADMINISTRATION DEGREE**

**Admissions Requirements**

The Master of Public Administration at Arkansas State University exists to enhance individual, organizational, social and governmental capacity in the public and non-profit sectors by equipping pre-service and mid-career students with sound management skills and a public/non-profit philosophy to lead public institutions of the future with integrity, innovation, excellence and professionalism.

To be considered for admission to the MPA program, in addition to meeting Graduate School admission requirements applicants must provide:

- Three letters of recommendation;

Moreover, an applicant's undergraduate background must include courses with grades of "C" or higher in American national government and principles of economics or their equivalents.

If the student is deficient, these courses must be taken in addition to the graduate course requirements specified below. Such undergraduate deficiencies must be completed prior to or during the first graduate enrollment period.

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For conditional admission, academic proficiency must be established by a minimum cumulative undergraduate grade point average of 2.75

Courses required all of all candidates:

POSC 6563 Seminar in Public Administration

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POSC 6003 Techniques of Political & Public Administration Research

POSC 6633 Public Information Management

POSC 6593 Seminar in Human Resources Management

POSC 6573 Grant Writing & Administration

POSC 6613 Administrative Leadership

POSC 6623 Administrative Ethics

Six hours chosen from the three options listed below

**~~POSC 6523 Decision Making~~**

~~POSC 6503 Managing Local Government~~

POSC 6643 Non-Profit Management

POSC 6653 MPA Capstone Experience

OR

POSC 6603-6, Internship in Public Administration\*

POSC 6653 MPA Capstone Experience

OR

POSC 6656, Thesis in Public Administration

\*Internships are strongly encouraged for all pre-service students and are normally undertaken 209 after a student has completed 18 credit hours. Internships are open only to students with a grade point average of no less than 3.0.

\*All students are required to complete and submit a set of comprehensive case study analyses during their final enrollment period. Case studies and instructions for completion are provided when students file for graduation.

Minimum hours required for the program: 36

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College Dean

Date

Graduate Curriculum Committee Chair

Date

Vice Chancellor for Academic Affairs

Date

**1. Contact Person** (Name, Name of Institution, Address, Email Address, Phone Number)Catherine C. Reese, ASU-J, PO 1750 State University, AR 72467-1750, [ccreese@astate.edu](mailto:ccreese@astate.edu), 870-972-3048**2. Proposed Change**

Eliminate a prerequisite (POSC 3003 or equivalent or permission of professor) from POSC 6003.

**3. Effective Date**

August 2013

**4. Justification**

No prior knowledge is assumed.

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**FROM PAGE 222 OF 2012-2013 GRADUATE BULLETIN:**

**DEPARTMENT OF POLITICAL SCIENCE**

Revised 9/10/09

## **DEPARTMENT OF POLITICAL SCIENCE**

### **General Political Science**

**POSC 6003 Techniques of Political and Public Administration Research** Develops a working knowledge of the substance of contemporary research in political science and public administration and of alternative research strategies and techniques of data analysis in contemporary research. ~~Prerequisite: POSC 3003 or equivalent or permission of professor.~~

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**Graduate Curriculum Committee Chair**

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**Vice Chancellor for Academic Affairs**

### 1.Contact Person (Name, Email Address, Phone Number)

Shawn Drake, [sdrake@astate.edu](mailto:sdrake@astate.edu); 972-2667

### 2.Proposed Change

PT 7623 Electrotherapy and Physical Agents. Introduction to the theory and applications of thermal modalities and electrotherapy to human tissue. Indications, contraindications, and precautions for thermal modalities, and electrotherapy are covered. Clinical decision making and appropriate applications of the modalities are emphasized.

### 3.Effective Date

Fall 2013

### 4.Justification

Originally, this course was set up to have 3 lecture hours/week and 2 laboratory hours/week for 4 credit hours. Faculty determined that lecture hours could be reduced to 1 lecture hour/week with the use of web-enhanced technology

(Blackbaord) and increase the laboratory hours to 4 contact hours/week. This allows more time for students to practice using electrotherapy and physical agents in a laboratory setting.

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**From Page 226-227 of 2012-2013 Graduate Bulletin**

**COLLEGE OF NURSING AND HEALTH PROFESSIONS**

The College of Nursing and Health Professions offers six graduate level programs: the Graduate Certificate in Aging Studies, the Graduate Certificate in Health Sciences Education, the Master of Communication Disorders (M.C.D.), the Doctor of Physical Therapy (D.P.T.), the Master of Science in Health Sciences (M.S.H.S.), and the Master of Science in Nursing (M.S.N.).

**DOCTOR OF PHYSICAL THERAPY**

The Doctor of Physical Therapy (DPT) is the preferred degree by the Commission on Accreditation in Physical Therapy Education (CAPTE) and the American Physical Therapy Association's (APTA) and it reflects the current level of study that is required to meet the latest standards for physical therapy education.

**Admission Requirements**

Admissions requirements include an earned bachelor's degree in a related field, acceptance to ASU, Graduate School and satisfactory completion of pre-requisite courses. Completing admission requirements does not ensure acceptance into the DPT program as students are admitted on a competitive space-available basis.

**Application Deadlines**

Application deadline is February 1st each year. Students may acquire detailed information about the application process and pre-requisite courses by contacting the Department of Physical Therapy at 870-972-3591 or visiting the department's website at <http://www.astate.edu/conhp/pt>.

**The D.P.T. Degree and Physical Therapy Licensure**

The D.P.T. is the entry-level degree for the practice of physical therapy. The Curriculum associated with the degree prepares graduates for physical therapy practice while paying particular to the health and rehabilitation concerns of residents of the Delta region. Licensure to practice physical therapy is granted by the individual states and issued on scores obtained on the National Licensing Examination administered by the Federation of State Boards of Physical Therapy. Graduation from an accredited educational program is a prerequisite to sit for the licensing exam. The DPT program at ASU is accredited by the Commission on Accreditation of Physical Therapy Education.



## Course Requirements

The DPT consists of 109 semester credit. The courses are a mixture of didactic and clinical learning experiences including several sections of extended weeks of full time clinical education. The sequence of courses appears below.

### Course Sequence

#### Fall Year 1

PT 7113 Gross Anatomy

PT 7213 Movement Science

~~PT 7624~~ PT 7623 Electrotherapy & Physical Agents

PT 7534 Clinical Procedures: Introductory Test, Measures, Interventions

PT 7512 Professional Issues 1: Introduction to PT Practice

PT 7612 Methods of Instruction & Consultation

#### Spring Year 1

PT 7314 Exercise Physiology

PT 7123 Intro to Research and Evidence Based Practice

PT 7224 Neuroscience

PT 8245 Musculoskeletal 1

PT 7243 Integumentary

#### Summer Year 1

PT 7733 Clinical Education 1

PT 7413 Pathophysiology & Differential Diagnosis

#### Fall Year 2

PT 7141 Research 1

PT 8143 Neuromuscular 1

PT 8255 Musculoskeletal 2

PT 7444 Cardiopulmonary

PT 7343 Administration

#### Spring Year 2

PT 8151 Research 2

PT 8653 Neuromuscular 2

PT 8754 Neuromuscular 3

PT 8352 Health & Wellness

PT 7252 Psychosocial Issues

PT 7832 Clinical Education 2

#### Summer Year 2

PT 8163 Clinical Education 3

PT 8263 Clinical Education 4

PT 7323 Imaging & Pharmacology

#### Fall Year 3

PT 8571 Research 3

PT 8674 Musculoskeletal 3

PT 8773 Neuromuscular 4

PT 8272 Professional Issues in PT 2

PT 8872 Clinical Decision Making

PT 8373 Special Topics in Physical Therapy

#### Spring Year 3

PT 8585 Clinical Education 5

PT 8685 Clinical Education 6

PT 818V Independent Study & Culminating Experience

All students in the Graduate Program in Physical Therapy at ASU must pass a comprehensive examination prior to beginning the

fi

nal clinical internships in the Spring of Year 3.

Progression to these clinical internships can be delayed or denied if a passing grade for the comprehensive examination is not achieved.

Minimum hours required for this program: ~~109~~108

From Page 253 of 2012-2013 Bulletin

~~PT 7624~~ PT 7623 Electrotherapy and Physical Agents

Introduction to the theory and applications of thermal modalities and electrotherapy to human tissue. Indications, contraindications, and precautions for thermal modalities, and electrotherapy are covered. Clinical decision making and appropriate applications of the modalities are emphasized. Restricted to Doctor of Physical Therapy majors.

PT 7733 Clinical Education I

One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.

PT 7832 Clinical Education II

One of a series of supervised clinical education courses, which provides students an opportunity to integrate academic coursework into clinical practice in inter-professional and non-traditional settings. Restricted to Doctor of Physical Therapy majors.

PT 8143 Neuromuscular I

Theoretical foundations of neuromuscular rehabilitation including normal and abnormal movement, neuroplasticity, motor control, and motor learning. Basic treatment principles are introduced. Restricted to Doctor of Physical Therapy majors.

PT 8151 Research II

The second of three mentored research courses designed to culminate in a project suitable for presentation or publication. Students will continue developing projects related to the faculty advisor's area of knowledge and interest. Restricted to Doctor of Physical Therapy majors.

PT 8163 Clinical Education III

One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.

PT 818V Independent Study and Culminating Experience

This is an independent study that is designed to meet the individual needs of the student. The course work is designed on an individual basis. Restricted to Doctor of Physical Therapy majors.

PT 8245 Musculoskeletal I

Management of musculoskeletal cases of the upper and lower extremities incorporating anatomy, biomechanics, pathology, clinical diagnosis, and intervention. Emphasis is on clinical decision making in all patient-therapist interaction. Education, prevention, ergonomics, pain management, and conditioning also covered. Restricted to Doctor of Physical Therapy majors.

PT 8255 Musculoskeletal II

Management of musculoskeletal cases of the spine and TMJ incorporating anatomy, biomechanics, pathology, clinical diagnosis, and intervention. Emphasis is on clinical decision making in all patient-therapist interaction. Education, prevention, ergonomics, pain management, and conditioning also covered. Restricted to Doctor of Physical Therapy majors.

PT 8263 Clinical Education IV

One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic

coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.

PT 8272 Professional Issues II

Exploration of the roles of physical therapist in clinical practice and ethical and legal dilemmas faced by physical therapists; design of a professional development plan. Restricted to Doctor of Physical Therapy majors.

Code # 

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**Undergraduate Curriculum Council Chair**

ENTER DATE...

**Graduate Curriculum Committee Chair**

ENTER DATE...

**Vice Chancellor for Academic Affairs**

### 1.Contact Person (Name, Email Address, Phone Number)

Shawn Drake, [sdrake@astate.edu](mailto:sdrake@astate.edu); 972-2667

### 2.Proposed Change

Changes include updating the course numbers PT 8773 to PT 8774 to reflect approved course changes previously submitted.

### 3.Effective Date

Fall 2013

### 4.Justification

Change of course sequence to balance credit hours out to average 17 hours/semester.

Other changes include updating course numbers PT 8774 and PT 8574 to correctly reflect approved course numbers. These courses were approved previously with credit hour increases but are not correct in the course outline section..

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From 2013-2014 Bulletin (unpublished) pg 226-227

## **COLLEGE OF NURSING AND HEALTH PROFESSIONS**

The College of Nursing and Health Professions offers six graduate level programs: the Graduate Certificate in Aging Studies, the Graduate Certificate in Health Sciences Education, the Master of Communication Disorders (M.C.D.), the Doctor of Physical Therapy (D.P.T.), the Master of Science in Health Sciences (M.S.H.S.), and the Master of Science in Nursing (M.S.N.).

### **DOCTOR OF PHYSICAL THERAPY**

The Doctor of Physical Therapy (DPT) is the preferred degree by the Commission on Accreditation in Physical Therapy Education (CAPTE) and the American Physical Therapy Association's (APTA) and it reflects the current level of study that is required to meet the latest standards for physical therapy education.

#### **Admission Requirements**

Admissions requirements include an earned bachelor's degree in a related field, acceptance to ASU, Graduate School and satisfactory completion of pre-requisite courses. Completing admission requirements does not ensure acceptance into the DPT program as students are admitted on a competitive space-available basis.

#### **Application Deadlines**

Application deadline is February 1st each year. Students may acquire detailed information about the application process and pre-requisite courses by contacting the Department of Physical Therapy at 870-972-3591 or visiting the department's website at <http://www.astate.edu/conhp/pt>.

#### **The D.P.T. Degree and Physical Therapy Licensure**

The D.P.T. is the entry-level degree for the practice of physical therapy. The Curriculum associated with the degree prepares graduates for physical therapy practice while paying particular to the health and rehabilitation concerns of residents of the Delta region. Licensure to practice physical therapy is granted by the individual states and issued on scores obtained on the National Licensing Examination administered by the Federation of State Boards of Physical Therapy. Graduation from an accredited educational program is a prerequisite to sit for the licensing exam. The DPT program at ASU is accredited by the Commission on Accreditation of Physical Therapy Education.

#### **Course Requirements**

The DPT consists of 109 semester credit. The courses are a mixture of didactic and clinical learning experiences including several sections of extended weeks of full time clinical education. The sequence of courses appears below.

Course Sequence

Fall Year 1

PT 7113 Gross Anatomy  
PT 7213 Movement Science  
PT 7624 Electrotherapy & Physical Agents  
PT 7534 Clinical Procedures: Introductory Test, Measures, Interventions  
PT 7512 Professional Issues 1: Introduction to PT Practice  
PT 7612 Methods of Instruction & Consultation  
227

Spring Year 1

PT 7314 Exercise Physiology  
PT 7123 Intro to Research and Evidence Based Practice  
PT 7224 Neuroscience  
PT 8245 Musculoskeletal 1  
PT 7243 Integumentary  
Summer Year 1

PT 7733 Clinical Education 1  
PT 7413 Pathophysiology & Differential Diagnosis

Fall Year 2

PT 7141 Research 1  
PT 8143 Neuromuscular 1  
PT 8255 Musculoskeletal 2  
PT 7444 Cardiopulmonary  
PT 7343 Administration

Spring Year 2

PT 8151 Research 2  
PT 8653 Neuromuscular 2  
PT 8754 Neuromuscular 3  
PT 8352 Health & Wellness  
PT 7252 Psychosocial Issues  
PT 7832 Clinical Education 2

Summer Year 2

PT 8163 Clinical Education 3  
PT 8263 Clinical Education 4  
PT 7323 Imaging & Pharmacology

Fall Year 3

PT 7343 Administration  
PT 8571 Research 3  
PT 8674 Musculoskeletal 3

~~PT 8773~~ PT 8774 Neuromuscular 4

PT 8272 Professional Issues in PT 2  
PT 8872 Clinical Decision Making  
PT 8373 Special Topics in Physical Therapy

Spring Year 3

PT 8585 Clinical Education 5  
PT 8685 Clinical Education 6  
PT 818V Independent Study & Culminating Experience

All students in the Graduate Program in Physical Therapy at ASU must pass a comprehensive examination prior to beginning the final clinical internships in the Spring of Year 3.

Progression to these clinical internships can be delayed or denied if a passing grade for the comprehensive examination is not achieved.

**Minimum hours required for this program: 109**