REPORT TO THE UNIVERSITY SENATE

DATE: May 2010
FROM: Graduate Studies and Research

The Graduate Council submits the following items for consideration. Items marked with an asterisks [*] are information items. All other items are consent items:

I. Temporary Course
   SMED 501 Designing Instruction Sequences in Secondary Math and Science*
   SMED 510 Knowing and Learning in Mathematics and Science*
   SMED 520 Management for Positive Learning Environments*

II. Create a Course
   AMS 588 Product Development
   BIOL 535 Analytical Biochemistry
   CHEM 535 Analytical Biochemistry
   SMED 530 Literacy Support for Diverse Learners in Mathematics & Science
   SMED 560 Developing Professional Learning Communities for Instructional Improvement
   SMED 589 Science and Mathematics Education Internship Seminar
   SMED 590 Teaching Internship
   SMED 620 Collaborative Research to Improve Mathematics & Science Teaching
   SMED 630 Action Research Seminar
   EDU 699 Specialist Project

III. Revise Course Title
   AMS 650 Industrial Distribution

IV. Reactivate Suspended Course
   BIOL 458G Fishery Biology

V. Multiple Revisions to a Course
   BIOL 458G Fishery Biology

VI. Revise a Program
   EdS in Secondary Education, Ref. #119
   Planned Sixth-Year (Rank I) in Library Media Education
   Applied Economics, Ref. #0410
1. **Identification of proposed course:**
   1.1 Course prefix (subject area) and number: AMS 588
   1.2 Course title: Product Development
   1.3 Abbreviated course title: Product Development
   1.4 Credit hours and contact hours: 3
   1.5 Type of course: L (Lecture)
   1.6 Prerequisites/corequisites: N/A
   1.7 Catalog course listing:
      Basic elements of marketing, design, and prototyping for innovation.
      Study of the multidisciplinary interrelationships involved in the
      development of commercial products.

2. **Rationale:**
   2.1 Reason for developing the proposed course:
      To support a future concentration for the MSTM Program, Students take
      this course in preparation for managing engineered product development
      or technical design systems.

   2.2 Projected enrollment in the proposed course:
      The course will have an initial minimum of 6 students and a maximum of
      20 students each time it is offered.

   2.3 Relationship of the proposed course to courses now offered by the
      department:
      This course builds upon the core courses for the MSTM as a concentration
      specialty.

   2.4 Relationship of the proposed course to courses offered in other
      departments:
      There are no other graduate courses in Product Development at Western
      Kentucky University.

   2.5 Relationship of the proposed course to courses offered in other
      institutions:
      • East Carolina University: IE 504- Product Development Process
      • University of Tennessee-Knoxville: IE 504 - Product Development Process
      • Northwestern University: MPD 400-0 - Introduction to Product
        Development
3. **Discussion of proposed course:**

3.1 Course objectives:
- Develop managerial skills for creative technical processes, design, and customer-focused innovation
- Describe the fundamental tools and techniques used in product design and development.
- Demonstrate basic competency in design gap analysis, design strategy, industrial design, human factors, and management of intellectual property.
- Assess and discuss the roles of multiple functions in creating a new product (e.g. marketing, finance, industrial design, engineering, and production).
- Identify the coordination necessary to manage multiple tasks and interdisciplinary design teams.

3.2 Content outline:

- The Design Process
- Design Procedures and Organization
- Product Planning
- Identifying Customer Needs/ Market Requirements
- Product Specifications
- Concept Generation
- Concept Selection
- Concept Testing
- Product Architecture
- Industrial Design
- Design for Manufacturing
- Design Cost
- Prototyping
- Robust Design
- Patents and Intellectual Property
- Product Development Economics
- Managing Design Projects
- Product Development Phase Gates and Exit Criteria

3.3 Student expectations and requirements:
- Complete prescribed examinations
- Pursue reading and research in material other than text
- Read assigned material and participate in discussions
- Write research papers
- Share professional experiences from industry
- Participate in assignments/activities
- Develop professional presentations

3.4 Tentative texts and course materials:
ISBN: 9781563272820


Additional materials will supplement the textbooks.

4. **Resources:**
   4.1 Library resources:
   Existing Library resources are adequate to facilitate this course.
   Computer resources:
   Existing departmental computer facilities are adequate to facilitate this course

5. **Budget implications:**
   5.1 Proposed method of staffing: Course will be taught by existing staff until enrollments exceed current capability
   5.2 Special equipment needed: N/A
   5.3 Expendable materials needed: N/A
   5.4 Laboratory materials needed: N/A

6. **Proposed term for implementation:**
   Fall 2011

7. **Dates of prior committee approvals:**

   AMS Department: 3/21/10
   Ogden College Graduate Curriculum Committee 3/26/10
   Graduate Council 4/8/2010
   University Senate
1. **Identification of proposed course:**
   1.1 Course prefix (subject area) and number: BIOL 535
   1.2 Course title: Analytical Biochemistry
   1.3 Abbreviated course title: Analytical Biochemistry
   1.4 Credit hours and contact hours: 3
   1.5 Type of course: A
   1.6 Prerequisites/corequisites: BIOL 446/G or CHEM 446/G or consent of instructor
   1.7 Course catalog listing:
      An overview of the science of modern analytical and instrumental techniques with emphasis on techniques relevant to measurements in biochemistry and biology.

2. **Rationale:**
   2.1 Reason for developing the proposed course:
      Analytical Biochemistry plays an indispensable role in modern biochemistry and biology. Without the ability to detect and to determine the composition of a complex, multi-component sample, advances in the biological and biochemical sciences would be much less remarkable. In this context, this course will prepare our students ready for 21st century Biopharmaceutical sciences.
   2.2 Projected enrollment in the proposed course: 15, since this course is specifically designed for graduate level.
   2.3 Relationship of the proposed course to courses now offered by the department: This is the only course relating analytical techniques toward understanding the biology of the living systems in the Department of Biology.
   2.4 Relationship of the proposed course to courses offered in other departments: There are no courses offered at WKU that have significant overlap with Analytical Biochemistry.
   2.5 Relationship of the proposed course to courses offered in other institutions:
      No similar courses with the same content are currently offered in the Commonwealth of Kentucky including in University of Kentucky and University of Louisville.
3. Discussion of proposed course:

3.1 Course objectives:
In order to make and use analytical measurements intelligently, it is important to understand the physical, chemical, and instrumental principles upon which these measurements are made. In this course, these basic principles will be discussed with the assumption that the student already has a strong foundation in biochemistry (through the prerequisite). The lecture will focus on specialized instrumentation and on applications that are not thoroughly explored in these prerequisite courses.

3.2 Content outline:
- Protein and DNA building blocks and structures
- Definitions and basic forces of interaction
- Fundamentals of molecular spectroscopy
- Circular Dichroism
- Fluorescence spectroscopy
- Isothermal titration calorimetry
- Differential scanning calorimetry
- Fundamental and application of NMR spectroscopy for biological macromolecules
- Fundamental and application of X-ray crystallography for biological macromolecules
- In addition, some interesting applications and the validation of new bioanalytical techniques will be discussed.

3.3 Student expectations and requirements:
A series of journal reviewing, assignment, midterm exams, and oral presentation will be administered. Grades on these assignments and a final exam will be used to determine the grades in the course.

3.4 Tentative texts and course materials:

4. Resources:
4.1 Library resources: See attached library resource form and bibliography
4.2 Computer resources: No new additional resources required

5. Budget implications:
5.1 Proposed method of staffing: Existing faculty will teach this course
5.2 Special equipment needed: None
5.3 Expendable materials needed: None
5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2010

7. Dates of prior committee approvals:

   Biology Department          11 March 2010
   OCSE Curriculum Committee   26 March 2010
   Graduate Council            4/8/2010
   University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form
Proposal Date: 1/20/2010

Odgen College of Science and Engineering
Department of Chemistry
Proposal to Create a New Course
(Action Item)

Contact Person: Dr. Rajalingam Dakshinamurthy
Email: rajalingam.dakshinamurthy@wku.edu
Phone: 270-745-2136

1. Identification of proposed course:
   1.1 Course prefix (subject area) and number: CHEM 535
   1.2 Course title: Analytical Biochemistry
   1.3 Abbreviated course title: Analytical Biochemistry
   1.4 Credit hours and contact hours: 3
   1.5 Type of course: A
   1.6 Prerequisites/corequisites: CHEM 446/G or BIOL 446/G or consent of instructor
   1.7 Course catalog listing:
       An overview of the science of modern analytical and instrumental techniques with particular emphasis on techniques relevant to measurements in biochemistry and biology.

2. Rationale:
   2.1 Reason for developing the proposed course:
       Analytical Biochemistry plays an indispensable role in modern biochemistry and biology. Without the ability to detect and to determine the composition of a complex, multi-component sample, advances in the biological and biochemical sciences would be much less remarkable. In this context, this course will prepare our students ready for 21st century Biopharmaceutical sciences.
   2.2 Projected enrollment in the proposed course: 15, since this course is specifically designed for graduate level.
   2.3 Relationship of the proposed course to courses now offered by the department: This is the only course relating analytical techniques toward understanding the biology of the living systems in the Department of Chemistry.
   2.4 Relationship of the proposed course to courses offered in other departments: There are no courses offered at WKU that have significant overlap with Analytical Biochemistry.
   2.5 Relationship of the proposed course to courses offered in other institutions:
       No similar courses with the same content are currently offered in the Commonwealth of Kentucky including in University of Kentucky and University of Louisville.
3. **Discussion of proposed course:**

3.1 **Course objectives:**

In order to make and use analytical measurements intelligently, it is important to understand the physical, chemical, and instrumental principles upon which these measurements are made. In this course, these basic principles will be discussed with the assumption that the student already has a strong foundation in biochemistry (through the prerequisite). The lecture will focus on specialized instrumentation and on applications that are not thoroughly explored in these prerequisite courses.

3.2 **Content outline:**

- Protein and DNA building blocks and structures
- Definitions and basic forces of interaction
- Fundamentals of molecular spectroscopy
- Circular Dichroism
- Fluorescence spectroscopy
- Isothermal titration calorimetry
- Differential scanning calorimetry
- Fundamental and application of NMR spectroscopy for biological macromolecules
- Fundamental and application of X-ray crystallography for biological macromolecules
- In addition, some interesting applications and the validation of new bioanalytical techniques will be discussed.

3.3 **Student expectations and requirements:**

A series of journal reviewing, assignment, midterm exams, and oral presentation will be administered. Grades on these assignments and a final exam will be used to determine the grades in the course.

3.4 **Tentative texts and course materials:**


4. **Resources:**

4.1 Library resources: See attached library resource form and bibliography

4.2 Computer resources: No new additional resources required

5. **Budget implications:**

5.1 Proposed method of staffing: Existing faculty will teach this course

5.2 Special equipment needed: None

5.3 Expendable materials needed: None
5.4 Laboratory materials needed: None

6. **Proposed term for implementation: Fall 2010**

7. **Dates of prior committee approvals:**

   Chemistry Department  
   OCSE Curriculum Committee  
   Graduate Council  
   University Senate  

   3/15/10  
   3/26/10  
   4/8/2010

Attachment: Bibliography, Library Resources Form, Course Inventory Form
College of Education and Behavioral Sciences  
School of Teacher Education  
Proposal to Create a New Course  
(Action Item)

Contact Person: Vicki H. Metzgar, vicki.metzgar@wku.edu, 270.745.3343

1. **Identification of proposed course:**
   1.1 Course prefix (subject area) and number: SMED 530
   1.1 Course title: Literacy Support for Diverse Learners in Mathematics and Science
   1.2 Abbreviated course title: Ltcy Supp for Div Lrnrs SMED
   1.3 Credit hours and contact hours: 3 hours
   1.4 Type of course: Lecture
   1.5 Prerequisites: Successful completion of at least one graduate SMED course
   1.6 Course catalog listing: Designing literacy instruction for diverse learners in mathematics and science.

2. **Rationale:**
   2.1 Reason for developing the proposed course:

   WKU has been awarded a grant from the U.S. Department of Education to fund a five-year project in which WKU partners with Jefferson County (Louisville), Kentucky Public Schools to recruit and train students who hold an undergraduate degree in Mathematics or Science and who wish to pursue a Master of Arts in Education degree and the Alternate Route to Teacher Certification through a newly-funded program referred to as GSKyTeach. The proposed course will be part of a sequence of courses leading to the MAE for GSKyTeach graduate students. Graduate students preparing to become secondary science or mathematics teachers need to develop skills that enable them to recognize students with special needs, design instruction that is content rich and adapted to the specific needs of students with disabilities, incorporate literacy strategies that enhance students’ skills to learn from print, and implement lessons with fidelity that will enhance the growth of all students. Moreover, graduate students must become adept at delivering instruction in their content areas so that students will be able to master the content of science or mathematics and achieve at a high level.

   2.2 Projected enrollment in the proposed course:
2.3 Relationship of the proposed course to courses now offered by the department:

EDU 522 – Fundamentals of Differentiated Instruction is offered in the Master of Arts in Education degree. This course is designed for individuals who already hold teaching certification, and it includes strategies to address the needs of a variety of learners, including gifted students. However, it does not address mathematics and science instruction specifically, nor does it provide instruction in Literacy.

EXED 533 - Curriculum for Learning and Behavior Disorders is a course in the Exceptional Education MAE program for teachers of students with Learning and Behavior Disorders. This Exceptional Education course does not specifically focus on Math and Science Literacy as does the proposed course. In contrast, EXED 533 places focus on curricular materials, strategies, and practices validated for students with Learning and Behavior Disorders.

EXED 535- Seminar: Curriculum for the Moderately & Severely Disabled is part of the MAE program for teachers of Moderately or Severely Disabled students. This course is a Seminar which requires other coursework to serve as its foundation. There is not a specific EXED course that is similar to the proposed SMED course, and none contain curriculum related to Literacy.

LTCY 524 -Teaching Reading Skills in the Content Areas: The description for this course states that it concentrates on, “reading and study skills strategies and techniques to increase student achievement in content-area classes.” This is currently offered for MAE candidates in the School of Teacher Ed; however, it does not address the needs of exceptional students, nor does this course narrow the depth of focus to science and mathematics only. LTCY 524 is currently offered exclusively for the Master of Arts in Education for Literacy Education candidates.

SMED 530 is designed specifically to meet the needs of graduate students in the GSKyTeach program, who will have with no foundational knowledge or education background. Although there are other Exceptional Education and Literacy courses in the School of Teacher
Education, the proposed course will be tailored for Mathematics and Science instruction, exclusively.

2.4 Relationship of the proposed course to courses offered in other departments:

There are no courses in other departments related to the needs of exceptional students and literacy in mathematics and science education.

2.5 Relationship of the proposed course to courses offered in other institutions:

There is not a course of this design and rigor at a benchmark or other institution.

3. Discussion of proposed course:

3.1 Course objectives: At the conclusion of this course, students will be able to:

- design instruction that will meet the literacy needs of diverse learners
- apply course concepts to help diverse learners master vocabulary, especially in the content area of science or mathematics
- measure reading comprehension in secondary science or mathematics for diverse learners
- promote reading/study skills in secondary science or mathematics for diverse learners
- demonstrate strategies for instruction in the content areas of science and mathematics that promote student achievement for all subgroups of students
- demonstrate skills for co-teaching and collaboration

3.2 Content outline:

The course outline will focus on:

- math and science inquiry lessons
- reading experiences that challenge, motivate, and involve all students
- instruction for exceptional learners in the classroom.
- co-teaching and collaboration with special educators and other related service personnel serving a diverse student population
- inclusion of students with special needs (including, but not limited to, language, cultural, socioeconomic, gifted education, and special education students)
- Culturally Responsive teaching
- Cooperative Learning
• educational technology to improve instruction
• integration of literature into mathematics and science instruction
• effects of disabilities on families
• legal issues in education

3.3 Student expectations and requirements:

SMED 530 students will:

• create and evaluate instructional tasks that build students' content knowledge; assess students' content knowledge based on evidence including videotapes of teaching, written artifacts of student work, and written analyses of teaching
• submit lesson plans and teach multi-day high school mathematics or science lessons on an assigned topic, including planning for teaching literacy in the content area and special modifications made to lessons for students with special needs (these will include observations and comments by Mentor Teachers, Master Teachers, and by the course instructor.)
• participate in in-class activities (e.g., Functions, Lesson Labs, Math or Science Lesson in Spanish, and Nature of Science Simulation)
• observe and analyze classroom instruction and data on student participation and performance with regard to equitable and diverse instructional approaches that afford all students an opportunity to learn
• employ relevant technologies in teaching (e.g., presentation, computer simulation, and graphical analysis & representation software); analyze how technology can affect classroom interactions
• read and analyze research results and theoretical literature on inclusion in Science and Mathematics classrooms and cite these results in analyses of their own teaching and reports to their peers
• create a significant portion of their Teacher Work Sample and demonstrate beginning competency as measured by applicable teacher certification standards
• Demonstrate competency in designing mathematics and science instruction that enhances students’ literacy growth (e.g. vocabulary, competency, fluency)

Assessment of student work will include grades for designing appropriate plans, demonstrating instructional skills, especially related to meeting the needs of students with special needs, promoting literacy in mathematics and science, and ensuring that all students achieve at a high level, and collecting and using student data to analyze teaching and modify plans as needed. Assessments will also include grades for written reports that are submitted for planning, data analysis, and reflection, as well as portions of the Teacher Work Sample that are submitted to the instructor.

3.4 Tentative texts and course materials:


4. **Resources:**
   4.1 Library resources:
       Current Library holdings are sufficient
   4.2 Computer resources:
       Current WKU resources are sufficient. Public school resources will be utilized during this course, and instructional technology will/must be planned accordingly.

5. **Budget implications:**
   5.1 Proposed method of staffing:
       Current staff are sufficient
   5.2 Special equipment needed:
       There is no special equipment necessary to teach this course.
   5.3 Expendable materials needed:
       Current materials available are sufficient
   5.4 Laboratory materials needed:
       No laboratory materials will be required for this course

6. **Proposed term for implementation: Fall 2010**

7. **Dates of prior committee approvals:**

   School of Teacher Education: 02/22/2010

   CEBS Curriculum Committee 03/02/2010

   Professional Education Council 03/17/2010
Graduate Council

4/8/2010

University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form
College of Education and Behavioral Sciences  
School of Teacher Education  
Proposal to Create a New Course  
(Action Item)

Contact Person: Vicki H. Metzgar, vicki.metzgar@wku.edu, 270-745-3343

1. Identification of proposed course:
   1.1 Course prefix (subject area) and number: SMED 560
   1.2 Course title: Developing Professional Learning Communities for Instructional Improvement
   1.3 Abbreviated course title: Dev PLCs for Instr Improvement
   1.4 Credit hours and contact hours: 3 hours
   1.5 Type of course: S
   1.6 Prerequisites: Admission to GSKyTeach program and permission of instructor
   1.7 Course catalog listing:

   Students form secondary professional learning communities with Mentor and Master Teachers and analyze student performance data to improve teaching/learning.

2. Rationale:
   2.1 Reason for developing the proposed course:

   In partnership with the Jefferson County Public Schools (JCPS) in Louisville, Kentucky and Ogden College of Science and Engineering, the College of Education and Behavioral Sciences has been awarded a Teacher Quality Partnership Grant from the U. S. Department of Education to establish a teacher residency program, called GSKyTeach. GSKyTeach’s primary purpose is to improve teaching and learning in math and science in underperforming schools by preparing and placing highly qualified and expertly prepared new math and science teachers in high-need high schools.

   Prospective teachers need to be able to work collaboratively within their schools to diagnose student achievement areas in need of improvement and to develop strategies that address the needs identified. Graduate Mathematics and Science students will spend one semester working alongside a Mentor Teacher and be guided by an experienced Master Teacher in secondary schools with traditionally low student achievement. SMED 560 will allow all students in the cohort, along with Mentor and Master Teachers, to come together and meet as a “professional learning community” that will critically examine student achievement in the
schools where they are placed. PLCs will be formed and will design instructional strategies that address low achievement and gaps in achievement in schools where they are placed. Students will then measure whether there is growth in achievement as a result of the implementation of those instructional strategies.

2.2 Projected enrollment in the proposed course:

There will be an initial cohort of 20 students enrolled in SMED 560. During the grant period, the number of students will range from 10-20, depending on funding. This graduate science and mathematics education program should be sustained beyond the grant period, however, when enrollment could be as high as 25-30 students per year.

2.3 Relationship of the proposed course to courses now offered by the department:

There are currently no other courses in the School of Teacher Education dedicated solely to the development of Professional Learning Communities. EDU 522 Fundamentals of Differentiated Instruction; and EDU 524 Educational Assessment are offered as part of the Master of Arts in Education program; however, even though these courses deal with addressing the issues related to low student achievement, neither addresses the relationships among professional colleagues and the collaborative efforts of such colleagues that must take place in order for this kind of work to occur at the departmental or school level in secondary education.

2.4 Relationship of the proposed course to courses offered in other departments:

There are no courses related to Professional Learning Communities in other departments at WKU. In the proposed Teacher Leader Masters curriculum, students will take TCHL 500, which touches on Professional Learning Communities but does not focus on developing them within departments or schools.

2.5 Relationship of the proposed course to courses offered in other institutions:

The University of West Georgia offers a course in Professional Learning Communities in its Educational Leadership program (EDLE 6327). This course is designed more for school administrators who are asked to develop skills to support PLCs in the schools they oversee rather than be participants. (http://coe.westga.edu/ELPS/)
3. Discussion of proposed course:

3.1 Course objectives:

SMED 560 students will be able to
- Lead a Professional Learning Community
- Collect and utilize data from multiple sources to determine and reflect on student learning and uncover “gaps” in learning
- Utilize data to develop instructional improvement plans to meet the developmental learning needs of all students
- Develop indicators and rubrics (both formative and summative) to measure student learning
- Implement instructional improvement plans
- Communicate student performance data, instructional improvement plans, and results of implementation to PLC members and other interested parties
- Develop awareness of and sensitivity to the cultural contexts of the schools in which they teach

3.2 Content outline:

Topics in SMED 560 include
- What is a Professional Learning Community (PLC)?
- Responsibilities for creation of and maintenance of a PLC
- Collection and interpretation of student data
- Changing focus from what is being taught to what students are learning
- Searching for “learning gaps”
- Creating instructional plans based on the results of student data
- Implementing instructional plans
- Professional communication skills

3.3 Student expectations and requirements:

Each SMED 560 student will:
- Work collaboratively with other students, Master Teachers, Mentor Teachers, administrators, and other professionals as indicated on evaluations done by the Mentor Teacher in consultation with others in the PLC and school
- Make a presentation to the PLC to present results of school data collection/analysis and outlines implications for instruction
- Prepare indicators and rubrics (formative and summative) to measure student learning
- Prepare an instructional improvement plan that reflects sensitivity to the cultural contexts of the school
• Work with the Mentor Teacher to implement the instructional improvement plan
• Conduct at least one meeting of the PLC
• Prepare and present a paper that critically reflects on her/his own learning and evaluates the role of the PLC in the learning process

Formative assessments will be completed throughout the semester and will be rated by the instructor. Summative assessments will include oral and written reports detailing the work of the PLC, as well as disposition ratings, which will be evaluated by the instructor.

3.4 Tentative texts and course materials:


4. Resources:

4.1 Library resources:

Current Library resources are adequate for this course.

4.2 Computer resources:

Current Computer resources are adequate for this course.

5. Budget implications:

5.1 Proposed method of staffing:

Tuition will fund the faculty needed for this course.

5.2 Special equipment needed:

No special equipment is needed for this course.

5.3 Expendable materials needed:

Expendable materials needed for this course include common office supplies such as chart tablets, colored markers, and paper.

5.4 Laboratory materials needed:
No laboratory materials are needed for this course.

6. **Proposed term for implementation: Spring 2011**

7. **Dates of prior committee approvals:**

   School of Teacher Education: 02/22/2010

   CEBS Curriculum Committee 03/02/2010

   Professional Education Council (if applicable) 03/17/2010

   Graduate Council 4/8/2010

   University Senate
1. **Identification of proposed course:**
   1.1 Course prefix (subject area) and number: SMED 589
   1.2 Course title: Science and Mathematics Education Internship Seminar
   1.3 Abbreviated course title: Science & Math Intern Seminar
   1.4 Credit hours and contact hours: 3 hours
   1.5 Type of course: Seminar
   1.6 Corequisite: SMED 590
   1.7 Course catalog listing: Connects theory to practice by helping students complete teaching tasks that demonstrate performance related to Kentucky’s New Teacher Standards.

2. **Rationale:**
   2.1 Reason for developing the proposed course:

   In partnership with the Jefferson County Public Schools (JCPS) in Louisville, Kentucky and Ogden College of Science and Engineering, the College of Education and Behavioral Sciences has been awarded a Teacher Quality Partnership Grant from the U. S. Department of Education to establish a teacher residency program, called GSKyTeach. GSKyTeach’s primary purpose is to improve teaching and learning in math and science in underperforming schools by preparing and placing highly qualified and expertly prepared new math and science teachers in high-need high schools. SMED 589 will help students demonstrate the professional skills and knowledge required to teach at the secondary level in science or mathematics. Students will complete a Teacher Work Sample and a Professional Growth Plan to meet the requirements for these competencies. The teaching tasks and reflections of the students will become part of a portfolio of professional competencies.

   2.2 Projected enrollment in the proposed course:

   There will be an initial cohort of 20 students enrolled in SMED 589. During the grant period, the number of students will range from 10-20,
depending on funding. The program will be sustained beyond the grant period, however, and the number of students could be as high as 25-30 per year.

2.3 Relationship of the proposed course to courses now offered by the department:

The College of Education and Behavioral Sciences currently offers masters-level courses leading to Teacher Certification. There are two separate courses; EDU 501 Seminar: Designing Professional Development Plan for one hour credit, and EDU 596 Portfolio Development & Professional Education Growth Plan for two hours credit. The Science and Mathematics Education program will offer SMED 589 as a single, three credit hour course that will encompass the general curriculum from both EDU 501 and 596.

2.4 Relationship of the proposed course to courses offered in other departments:

Since other departments do not offer teacher certification, there is no other department that offers a course similar to the proposed course.

2.5 Relationship of the proposed course to courses offered in other institutions:

Ball State University has a program most similar to the graduate science and mathematics education program, the Woodrow Wilson Indiana Teaching Fellowship, in which persons who hold undergraduate degrees in mathematics or science are recruited to earn a master’s degree and become certified to teach. In the fall semester of their program, the Teaching Fellows must participate in “module activities, and weekly seminars.” Module activities are described as shadowing of key school personnel and performing all duties of regular teaching staff. Fellows also meet regularly in seminar to discuss and reflect on these experiences to improve their own teaching.

The University of Northern Iowa does not offer a master’s degree in Science or Mathematics Education; however, in the undergraduate program students are required to complete and submit a Teacher Work Sample in order to be eligible for teacher certification. This is very similar to the TWS required by WKU.

3. Discussion of proposed course:

3.1 Course objectives:
• Design instruction using student and classroom context
• Address local and state content standards using instructional unit learning goals
• Measure and report learning results using pre-, post, and formative assessment to guide instruction
• Design instruction for all students that addresses unit learning goals and are aligned with concepts and processes assessed
• Make Instructional decisions based on continuous formative assessment
• Analyze and report learning for all students and significant groups
• Self-reflection and evaluation of teaching and learning

3.2 Content outline:

• Kentucky New Teacher Standards
• Electronic Portfolio System
• Teacher Work Sample
• Professional Growth Plan

3.3 Student expectations and requirements:

Students will:
• Develop learning goals that reflect several types or levels of learning and are significant and challenging
• Connect goals to clearly stated learning outcomes
• Insure that goals are appropriate for the development; pre-requisite knowledge, skills, experiences; and other student needs
• Align goals with national, state or local standards
• Develop an assessment plan to measure learning goals that includes multiple assessment modes (including performance assessments, lab reports, research projects, etc.) and assesses student performance throughout the instructional sequence
• Use content accurately and focus on the big ideas or structure of the discipline
• Organize lessons that move students toward achieving the learning goals
• Utilize a variety of instruction, activities, assignments and resources
• Use contextual information and data to select appropriate and relevant activities, assignments and resources
• Integrate appropriate technology

3.4 Tentative texts and course materials:
There are no specific texts for this course. Graduate Science and Mathematics Education students will have access to content-specific texts within the schools where they are placed. Students will have access to electronic documents related to the Kentucky New Teacher Standards (http://www.kyepsb.net/teacherprep/newteachstandards.asp), the Teacher Work Sample (http://edtech.wku.edu/rtwsc/resources.htm), and the Professional Growth Plan requirements for this course.

4. **Resources:**
   4.1 Library resources:

   Current Library resources are adequate for this course.

   4.2 Computer resources:

   No additional WKU computer resources will be required.

5. **Budget implications:**
   5.1 Proposed method of staffing:

   Faculty costs for SMED 589 will be covered by tuition.

   5.2 Special equipment needed:

   No special equipment is needed for this course.

   5.3 Expendable materials needed:

   There is no additional cost for materials for this course.

   5.4 Laboratory materials needed:

   None required

6. **Proposed term for implementation:** (201030)

7. **Dates of prior committee approvals:**

   School of Teacher Education: 02/22/2010

   CEBS Curriculum Committee 03/02/2010

   Professional Education Council 03/17/2010
Attachment: Bibliography, Library Resources Form, Course Inventory Form
College of Education and Behavioral Sciences  
School of Teacher Education  
Proposal to Create a New Course  
(Action Item)

Contact Person: Vicki H. Metzgar, vicki.metzgar@wku.edu, 270-745-3343

1. **Identification of proposed course:**
   1.1 Course prefix (subject area) and number: SMED 590  
   1.2 Course title: Teaching Internship  
   1.3 Abbreviated course title: Teaching Internship  
   1.4 Credit hours and contact hours: 8 credit hours  
   1.5 Type of course: N  
   1.6 Prerequisite: Admission to GSKyTeach program, Teacher Education, and student teaching; Corequisite: SMED 589  
   1.7 Course catalog listing:  

   Supervised student teaching experience across fall and spring semesters in assigned off-campus site. Students are responsible for own transportation to off-campus site.

2. **Rationale:**
   2.1 Reason for developing the proposed course:

   In partnership with the Jefferson County Public Schools (JCPS) in Louisville, Kentucky and Ogden College of Science and Engineering, the College of Education and Behavioral Sciences has been awarded a Teacher Quality Partnership Grant from the U. S. Department of Education to establish a teacher residency program called GSKyTeach. GSKyTeach’s primary purpose is to improve teaching and learning in math and science in underperforming schools by preparing and placing highly qualified and expertly prepared new math and science teachers in high-need high schools.

   This course is one of a series of new courses proposed as part of the GSKyTeach program. SMED 590 will place students in a student teaching practicum alongside a Mentor Teacher and under the guidance of a Master Teacher and WKU faculty member. The high school courses selected for the student to teach during the internship will reflect the likely teaching assignment students will have during the following year as first-year teachers. Students will spend four days per week for Fall and Spring semesters in a secondary mathematics or science classroom. Students will be required to complete other coursework related to the completion of
requirements for the Science and Mathematics Education master’s degree degree on Friday of each week.
In this supervised internship in the classroom of a Mentor Teacher, student teachers will not only observe and support the Mentor Teacher, but will also be provided structured co-teaching opportunities. Science and Mathematics Education students will progress from assisting the Mentor Teacher to teaching single lessons in a class and teaching an entire day, By the end of Spring semester students will be able to plan and teach for multiple weeks. WKU Faculty members will assess student performance for purposes of grading with cooperation and input from Mentor and Master Teachers in the schools.

2.2 Projected enrollment in the proposed course:

There will be an initial cohort of 20 students enrolled in SMED 590. During the grant period, the number of students will range from 10-20, depending on funding. GSKyTeach should be sustained beyond the grant period, however, when enrollment could be as high as 25-30 students per year.

2.3 Relationship of the proposed course to courses now offered by the department:

SEC 490 is the traditional undergraduate student teaching placement in a secondary classroom for a semester-long internship prior to graduation. SEC 490 requires student teachers to be placed for one entire semester, meeting classes five days per week alongside the supervising teacher. The GSKyTeach SMED 590 course differs in that it will require students to meet classes under the guidance of a Mentor Teacher for four days each week, and it will require students to spend Fall and Spring semesters in order to meet the requirements of the course. SEC 490 offers 10 hours of credit, whereas SMED 590 offers 8 hours of credit.

Other graduate internship courses offered in the School of Teacher Education include EXED 590 Advanced Internship in Exceptional Education, IECE 524 Internship in IECE, and LTCY 695 Internship in Literacy Supervision. These experiences are program-specific and not appropriate for students in the GSKyTeach program.

2.4 Relationship of the proposed course to courses offered in other departments:

There are no other departments that offer student teaching courses. However, several departments offer internship courses in which students acquire professional skills by working in supervised settings. Some examples are PSY 592 Psychology Internship, ADED 589 Internship in Community/Technical College Teaching, CNS 595 Internship, NURS 554
Primary Care Internship, and PS 598 Internship in Public Administration. These and other internship courses are program-specific and thus are not appropriate for students in the GSKyTeach program.

2.5 Relationship of the proposed course to courses offered in other institutions:

The University of Kentucky Department of Curriculum and Instruction offers a Masters of Education for Initial Certification (MIC) degree in which students spend an entire semester in student teaching. Their EDC 746 Student Teaching in Science carries 9 hours of graduate credit and meets five days per week for one semester.

Middle Tennessee State University offers secondary education, and their YOED 4110 Directed Teaching is the student teaching component. This class carries 9 hours of credit, as well, and meets five days per week for a single semester.

The University of Northern Iowa requires a 12 hour, one semester, student teaching assignment for undergraduate and graduate students.

3. Discussion of proposed course:

3.1 Course objectives:

Students will engage in teaching experiences that reflect situations where they will likely be placed as classroom teachers. The experiences will build upon the major themes and skills embedded in the Graduate Science and Mathematics Education course components. Students will demonstrate growth from novice to competent levels in the following areas:

- Recognizing students with exceptional educational needs
- Differentiating instruction for students with special needs
- Incorporating other disciplines through collaborative interdisciplinary teaching
- Using appropriate technology for instruction
- Demonstrating competence in effective classroom management strategies
- Planning and teaching for the safe use of all materials and facilities for instruction in mathematics or science
- Demonstrating best practices in assessment design
- Developing and utilizing effective classroom questioning strategies
- Developing strategies for teaching literacy in the content areas of mathematics or science
- Designing instructional sequences and units
- Planning and teaching lessons that include project based instruction
• Planning and executing the beginning phases of an action research project related to mathematics or science instruction
• Demonstrating competence in working with parents and community
• Participating in a professional learning community to improve instruction

3.2 Content outline:

Not applicable, as no content will be presented. As an internship experience, the proposed course will provide students with supervised practice in teaching math and science secondary school settings.

3.3 Student expectations and requirements:

In the first semester, students will create and teach a lesson each week. Master Teachers and Mentor Teachers will make content assignments and assist. All lesson preparations require approval before being taught. At least four lessons will be designed and taught by the student that demonstrate competence in the following areas: (Lessons may demonstrate multiple abilities)
• Technology
• Differentiating Instruction
• Questioning Strategies
• Assessment
• Incorporating multiple disciplines

During the second semester, students will create and teach an instructional sequence of 3 classes. Once the graduate students have demonstrated adequate skill, they will create and teach six continuous weeks of instruction to include at least one entire unit of instruction in their content area. Master Teachers and Mentor Teachers will make content assignments and assist. All lesson preparations will require approval before being taught. Students will concurrently do a classroom action research project with members of their cohort and their Mentor Teacher. Students will demonstrate competence in the following areas: (Lessons may demonstrate multiple abilities)
• Learning communities
• Action research
• Analysis and insight from data
• Technology
• Project based teaching

The student teaching experience is evaluated continuously through observation,
conferences, and cooperative planning and working together. Principally, the student teacher, supervising teacher and university supervisor are involved in the evaluation process. The final grade is the responsibility of the university supervisor, after consultation with the supervising teacher. An evaluative instrument is completed at mid-term and at the end of the student teaching experience. A copy of these forms are placed in the student's Teacher Education file.

3.4 Tentative texts and course materials: None

4. **Resources:**
   4.1 Library resources: None needed for this internship experience.
   4.2 Computer resources: None needed for this internship experience.

5. **Budget implications:**
   5.1 Proposed method of staffing: Existing faculty
   5.2 Special equipment needed: None
   5.3 Expendable materials needed: None
   5.4 Laboratory materials needed: None

6. **Proposed term for implementation: Fall 2010**

7. **Dates of prior committee approvals:**
   
   School of Teacher Education: 02/22/2010
   CEBS Curriculum Committee: 03/02/2010
   Professional Education Council: 03/17/2010
   Graduate Council: 4/8/2010
   University Senate: 

**Attachment:** Bibliography, Library Resources Form, Course Inventory Form
College of Education and Behavioral Sciences  
School of Teacher Education  
Proposal to Create a New Course  
(Action Item)

Contact Person:  Vicki H. Metzgar, vicki.metzgar@wku.edu, 270-745-3343

1. Identification of proposed course:
   1.1 Course prefix (subject area) and number: SMED 620
   1.2 Course title: Collaborative Research to Improve Mathematics and Science Teaching
   1.3 Abbreviated course title: Colab Rsrch Improve M/S Tchng
   1.4 Credit hours and contact hours: 3 hours
   1.5 Type of course: S
   1.6 Prerequisites: Admission to GSKyTeach program and permission of instructor
   1.7 Course catalog listing: Development of skills needed to design and develop a data based action research project to be implemented during the semester.

2. Rationale:  
   2.1 Reason for developing the proposed course:

   In partnership with the Jefferson County Public Schools (JCPS) in Louisville, Kentucky and Ogden College of Science and Engineering, the College of Education and Behavioral Sciences has been awarded a Teacher Quality Partnership Grant from the U. S. Department of Education to establish a teacher residency program called GSKyTeach. GSKyTeach’s primary purpose is to improve teaching and learning in math and science in underperforming schools by preparing and placing highly qualified and expertly prepared new math and science teachers in high-need high schools.

   The ability of teachers to use student data to analyze the teaching and learning that occurs in a classroom, plan instructional strategies that address places where student achievement falls short, and reflect on the instructional intervention is one area of professional skill where many current secondary teachers fall short. In order to prepare teachers with these skills, it is important to teach students how to conduct meaningful action research as part of their professional skill set prior to certification. SMED 620 will address this need, as it allows student teachers to work with their colleagues, as well as Mentor Teachers, Master Teachers, and WKU Faculty, to develop an action research project based on data drawn
from the classrooms where they are teaching. This project will be planned with the goal of improving the student teacher’s instruction in mathematics or science, and it will provide instruction in research methodologies that will enhance instruction and improve student achievement.

The primary purpose of SMED 620 is to develop the skills and processes for the design and development of a data based action research project. After instruction in research design, validity and reliability issues, and statistical treatment of data, teacher residents will work under the direction of both their Master Teacher and a WKU faculty member to design and develop a sound action research project that will be implemented during the Spring semester of their student teaching experience.

2.2 Projected enrollment in the proposed course:

There will be an initial cohort of 20 students enrolled in SMED 560. During the grant period, the number of students will range from 10-20, dependent on funding. GSKyTeach should be sustained beyond the grant period, however, when enrollment could be as high as 25-30 students per year.

2.3 Relationship of the proposed course to courses now offered by the department:

TCHL560 Action Research has been developed for inclusion in an upcoming revision of the MAE programs for teachers. TCHL 560 is intended for graduate students who already possess teaching certification and are seeking to improve their rank on the current salary scale. SMED 620 will serve a totally different set of graduate students, ones who were not previously certified and who have little or no prior knowledge of issues related to educational research. Since SMED graduate students will have such limited knowledge of educational research, and since their research will necessarily take place in mathematics and science classes, TCHL 560 will not include content needed by SMED students and will not serve as a substitute for SMED 620.

There are several other courses within the School of Teacher Education dealing with the foundations of research and applied research. However, these courses, listed below, do not address conducting action research within K-12 schools.

- ELED 545 Investigations in Classroom Teaching
- MGE 545 Investigations in Classroom Teaching
- EXED 534 Seminar: Research in Exceptional Child Education
- LME 509 Investigations in Educational Technology
2.4 Relationship of the proposed course to courses offered in other departments:

Most of the graduate programs at WKU offer basic research methods coursework. The following list is a representative sample: EDFN 500 Research Methods, EDFN 548 Theory and Methods of Qualitative Research, PSY 512 Seminar in Experimental Design, PE 501 Research Methods, REC 501 Research Methods in Recreation and Sport, and ECON 506 Applied Statistical Methods. There is also a list of coursework offered in statistical analysis, mostly tailored to the needs of the individual department, such as, EDFN501 Educational Statistics, EDFN 601 Applied Statistics and Design, PSY 513 Advanced Statistical Analysis, PSY 563 Psychometrics, and BA 540 Statistical Research Methods. SMED 620 will be an overview of research methods and statistical analysis with an emphasis on designing questions that can be investigated within the confines of the secondary mathematics or science classroom. The content of SMED 620 will cover issues of validity, reliability, and limitations involved with human subject research that will prepare the GSKyTeach candidate to work within the Professional Learning Communities formed concurrently in SMED 560 to initiate an innovative teaching design and to assess its impact on student learning.

2.5 Relationship of the proposed course to courses offered in other institutions:

MTSU offers ELED 6340, Introduction to Educational Research, which, as its letters indicate, is for Elementary Education Majors, and SPED 6710, Action Research, for Special Education Majors. Ball State University offers EDSEC 676 Research in Secondary Education, which leads to the Master’s Thesis course in Secondary Education. The University of Northern Iowa only has Master’s programs in Special Education or leading to administrative certification for the principalship.

3. Discussion of proposed course:

3.1 Course objectives:

The students will:
• gain an understanding of the tenets of action research
• explore a variety of approaches to research
• explore action research as a strategy for school improvement
• define what makes a researchable issue
• review current literature and develop an action research question related to the student’s content area and teaching assignment
• design and implement an action research project within the classes the student is teaching
• reflect on the outcome of the study and present the study’s findings in written and oral form

3.2 Content outline:

• Reflection on educational practice and ways to improve instruction
• Study the strategies, procedures, and tools for effective action research
• Examine data and appropriate interpretations of data
• Determine the impact of action research on teaching and learning with regard to instructional effectiveness
• Research on the ethics of human subjects testing
• Study of the Human Subjects Review Board process and successfully
• Write an IRB proposal and submit it for approval
• Develop and implement an action research project
• Communicate the results of action research

3.3 Student expectations and requirements:

Students will be expected to work with colleagues, Mentor Teachers, and Master Teachers to review student achievement data, identify areas in need of improvement, design appropriate instructional changes to address the areas of need, implement the instructional changes, assess student achievement pre- and post-implementation of changes, and communicate the findings in written and oral presentations. Formative assessment of students’ work will be ongoing, and summative assessment will be completed upon submission and presentation of a final report by each student.

Students will:

3.4 Tentative texts and course materials:


4. Resources:
   4.1 Library resources: Present resources are adequate.
   4.2 Computer resources: Present resources are adequate

5. Budget implications:
   5.1 Proposed method of staffing: Existing staff
   5.2 Special equipment needed: None
   5.3 Expendable materials needed: None
   5.4 Laboratory materials needed: None

6. Proposed term for implementation: Spring 2011

7. Dates of prior committee approvals:

   School of Teacher Education: 02/22/2010
   CEBS Curriculum Committee 03/02/2010
   Professional Education Council 03/17/2010
   Graduate Council 4/8/2010
   University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form
1. Identification of proposed course:
   1.1 Course prefix (subject area) and number: SMED 630
   1.2 Course title: Action Research Seminar
   1.3 Abbreviated course title: Action Research Seminar
   1.4 Credit hours and contact hours: 1 hour
   1.5 Type of course: S
   1.6 Prerequisite: SMED 620
   1.7 Course catalog listing:

   Students present results of instructional innovation and develop conclusions about practice or process implemented in secondary math or science classroom.

2. Rationale:
   2.1 Reason for developing the proposed course:

   In partnership with the Jefferson County Public Schools (JCPS) in Louisville, Kentucky and Ogden College of Science and Engineering, the College of Education and Behavioral Sciences has been awarded a Teacher Quality Partnership Grant from the U. S. Department of Education to establish a teacher residency program called GSKyTeach. GSKyTeach’s primary purpose is to improve teaching and learning in math and science in underperforming schools by preparing and placing highly qualified and expertly prepared new math and science teachers in high-need high schools.

   The proposed course will be part of the graduate science and mathematics education program. SMED 630 will be the culminating course for students. The cohort of graduate science and mathematics education students will present the results of Action Research projects completed during their student teaching experience.

   2.2 Projected enrollment in the proposed course:

   There will be an initial cohort of 20 students enrolled in SMED 630. During the grant period, the number of students will range from 10-20, depending on funding. GSKyTeach should be sustained beyond the grant
period, however, when enrollment could be as high as 25-30 students per year.

2.3 Relationship of the proposed course to courses now offered by the department:

In the School of Teacher Education, there are some graduate seminar courses, such as EDU 601 Seminar: Designing the Professional Development Plan and EDU 596 Portfolio Development & Professional Education Growth Plan, but these courses are designed to develop plans for professional growth, and not for dissemination of the results of an action research project.

2.4 Relationship of the proposed course to courses offered in other departments:

Although many other departments offer coursework which includes seminars, no other departments offer education seminars related to action research.

2.5 Relationship of the proposed course to courses offered in other institutions:

MTSU: 4260 Problems in Education. One to three credits. This course is designed to allow graduate education students to research and study educational issues as part of their graduate program and report on them. [http://www.mtsu.edu/ucat/0911/2009-11_Courses.pdf](http://www.mtsu.edu/ucat/0911/2009-11_Courses.pdf)

The University of Northern Iowa offers 190:389 a Doctoral Seminar (1 hour) This course is offered as part of a series of courses dealing with educational research questions. ([https://access.uni.edu/cgi-bin/ccd/catalog.cgi?dept=190](https://access.uni.edu/cgi-bin/ccd/catalog.cgi?dept=190))

Ball State University offers EDGEN 500: Analysis of Contemporary Educational Issues. (1–8 hours) Crucial contemporary issues in education are studied to determine their origin, status, and significance; to search for possible solutions through in-depth analysis; and to arrive at logical and practical positions. ([http://cms.bsu.edu/App_Media/1/0/9/%7B109A2369-0BFD-41D7-8BBA-7D4549CCAAF%7DTeacher%27s%20College.pdf](http://cms.bsu.edu/App_Media/1/0/9/%7B109A2369-0BFD-41D7-8BBA-7D4549CCAAF%7DTeacher%27s%20College.pdf))

3. Discussion of proposed course:

3.1 Course objectives:

At the conclusion of the course, students will be able to:

- Conduct a critical analysis of Action Research project data
- Evaluate oral reports on Action Research findings of their peers
• Collaboratively plan for instructional improvement in Math and Science
• Lead a community of professional learners

3.2 Content outline:
Students will:
• Analyze data from an Action Research Project related to student achievement gaps and instructional innovations to address these gaps
• Draw conclusions from the data analysis as relates to instructional innovations
• Prepare and submit a written report that incorporates analysis of these data and interpret the findings and implications of the project
• Present an oral report of the findings and implications for instructional changes to the cohort and faculty
• Critically evaluate their peers’ reports
• Collaborate with colleagues to plan for instructional improvements
• Lead seminar sessions

3.3 Student expectations and requirements:
Students will be assessed by submission of a written report and presentation of an oral report of the results of an Action Research project related to instructional improvements in secondary mathematics and/or science classes. Assessments will be based on the relevance of the research question to student achievement and leadership to present the student’s instructional innovations to improve student achievement. Further, the assessment will be based on the level of collaboration, artifacts gathered from the instructional innovation, the level of inquiry on which the research project was based, and the interpretation of results from the research project.

3.4 Tentative texts and course materials: None required

4. Resources:
4.1 Library resources: Present resources are adequate.
4.2 Computer resources: Present resources are adequate.

5. Budget implications:
5.1 Proposed method of staffing: Existing staff are adequate.
5.2 Special equipment needed: None required.
5.3 Expendable materials needed: None required.
5.4 Laboratory materials needed: None required.
6. Proposed term for implementation: Summer 2011

7. Dates of prior committee approvals:

   School of Teacher Education: 02/22/2010
   CEBS Curriculum Committee 03/02/2010
   Professional Education Council 03/17/2010
   Graduate Council 4/8/2010
   University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form
1. Identification of proposed course:
   1.1 Course prefix (subject area) and number: EDU 699
   1.2 Course title: Specialist Project
   1.3 Abbreviated course title: Specialist Project
   1.4 Credit hours and contact hours: 1 to 6 hours (6 hours total)
   1.5 Type of course: R—Research
   1.6 Prerequisite: Instructor permission
   1.7 Course catalog listing: Independent research related to a topic in education

2. Rationale:
   2.1 Reason for developing the proposed course: The School of Teacher Education presently has SEC 699 and ELED 699, specialist project courses for students in the EdS programs in elementary and secondary education. The recent creation of the School of Teacher Education has led to an effort to develop single courses that could serve students in more than one program area. Thus, the decision was made to create EDU 699 for use in any EdS program in the School of Teacher Education. The faculty intend to delete ELED 699 and SEC 699 once the proposed new course is approved.
   2.2 Projected enrollment in the proposed course: It is estimated that up to 20 students per year may enroll. This is based on recent development of a grant-supported program to recruit students in history.
   2.3 Relationship of the proposed course to courses now offered by the department: As noted above, the School of Teacher Education (STE) currently offers ELED 699 and SEC 699. The proposed course will be the capstone for the EdS in any program area in the STE.
   2.4 Relationship of the proposed course to courses offered in other departments: Most other departments offer a capstone course. All departments that offer the EdS have a 699 course. PSY 699, EDAD 699, and CNS 699 are the other three Specialist Project courses.
   2.5 Relationship of the proposed course to courses offered in other institutions: Other institutions that offer the EdS also require a capstone specialist project. Three examples are: EDL 785 (Independent Study in EdS) at the University of Kentucky, EDS 690 (Capstone Project) at Middle Tennessee State University, and CIED 680 EdS Project at the University of Arkansas.
3. **Discussion of proposed course:**
   3.1 Course objectives: Students will demonstrate skills in identifying an appropriate applied research topic, reviewing appropriate published literature, formulating research questions, designing and conducting a study, and discussing research results.
   3.2 Content outline: Not applicable; students will conduct independent research under the direction of a specialist project committee that will include at least three graduate faculty members.
   3.3 Student expectations and requirements: Students will be expected to complete a specialist project with the approval of committee members, present the project to the committee, and pass an oral defense of the project.
   3.4 Tentative texts and course materials: No texts will be required.

4. **Resources:**
   4.1 Library resources: current resources are adequate
   4.2 Computer resources: current resources are adequate

5. **Budget implications:**
   5.1 Proposed method of staffing: Present staffing is adequate to meet this course.
   5.2 Special equipment needed: none
   5.3 Expendable materials needed: none
   5.4 Laboratory materials needed: none

6. **Proposed term for implementation:** Fall 2010

7. **Dates of prior committee approvals:**

   School of Teacher Education 02/22/2010
   CEBS Curriculum Committee 03/02/2010
   Professional Education Council 3/19/2010
   Graduate Council _4/8/2010_
   University Senate ____________

Attachment: Bibliography, Library Resources Form, Course Inventory Form
Ogden College of Science and Engineering  
Department of Architectural and Manufacturing Sciences  
Proposal to Revise Course Title  
(Consent Item)

Contact Person:  Mark Doggett, mark.doggett@wku.edu, 270.745.6951

1. **Identification of course:**  
   1.1 Current course prefix (subject area) and number: AMS 650  
   1.2 Current course title: Industrial Distribution  
   1.3 Credit hours: 3

2. **Proposed course title:** Supply Chain Management

3. **Proposed abbreviated course title:** Supply Chain Management  
   (max. of 30 characters including spaces)

4. **Rationale for the revision of course title:**  
The revised course title will better match the current course description that reads:  
“An integrated and comprehensive treatment of operations and supply chain issues. Studies on how firms link with supply chain partners to gain a market advantage and competitiveness.”

5. **Proposed term for implementation:**  
Fall 2011

6. **Dates of prior committee approvals:**  
AMS Department: 3/21/10  
Ogden College Graduate Curriculum Committee 3/26/10  
Graduate Council 4/8/2010

University Senate

**Attachment:** Course Inventory Form
Ogden College of Science and Engineering
Department of Biology
Proposal to Reactivate a Suspended Course
(Consent Item)

Contact Person: Philip Lienesch, Philip.Lienesch@wku.edu, 5-6006

1. Identification of course:

   1.1 Current course prefix (subject area) and number: BIOL 458G
   1.2 Course title: Fishery Biology
   1.3 Credit hours: 3

2. Rationale for the course reactivation: This course was suspended during the 1990’s due to lack of interest and low enrollment. Recently, interest in fisheries careers has increased and students have been asking for this class. Unlike our other course in fish biology (BIOL 456 Ichthyology), Fishery Biology provides students with the skills needed to obtain employment with state and federal agencies responsible for managing fisheries.

3. Effect of course reactivation on programs or other departments, if known: none

4. Proposed term for implementation: Fall 2010

5. Dates of prior committee approvals:

   Biology Department: 03/05/2010

   OCSE Curriculum Committee 03/26/10

   Graduate Council 4/8/2010

   University Senate

Attachment: Course Inventory Form
Proposal Date: February 15, 2010

Ogden College of Science and Engineering
Department of Biology
Proposal to Make Multiple Revisions to a Course
(Action Item)

Contact Person: Philip Lienesch, Philip.Lienesch@wku.edu, 5-6006

1. Identification of course:
   1.1 Current course prefix (subject area) and number: BIOL 458G
   1.2 Course title: Fishery Biology
   1.3 Credit hours: 3 (2L/2B)

2. Revise course title:
   2.1 Current course title: Fishery Biology
   2.2 Proposed course title: Fisheries Management
   2.3 Proposed abbreviated title: Fisheries Management
   2.4 Rationale for revision of course title: Fisheries Management is a better description of the content of the course and is a title federal/state agencies look for when hiring fisheries biologists. Fisheries Management includes Fisheries Biology plus discussions of the agencies and regulations used to manage fisheries.

4. Revise course prerequisites:
   4.1 Current prerequisites: BIOL 224-225 or permission of instructor
   4.2 Proposed prerequisites: none
   4.3 Rationale for revision of course prerequisites: Students admitted to the Master’s program with an interest in fisheries should have the necessary knowledge to succeed in the class.
   4.4 Effect on completion of major/minor sequence: none

5. Revise course catalog listing:
   5.1 Current course catalog listing: A course dealing with various aspects of populations of freshwater fishes. Emphasis will be directed toward reproduction and development, food and feeding habits, age and growth, population dynamics, pollution effects, culture techniques and fish surveys.
   5.2 Proposed course catalog listing: A study of the factors affecting fish populations. Topics covered include life history traits, sampling techniques, management practices, and policies regulating the management of fish populations. Off-campus and overnight weekend field trips are required.
   5.3 Rationale for revision of course catalog listing: Modern fisheries biologists take a more proactive role in regulating fish populations rather than simply monitoring them. The proposed listing reflects the changing
importance of management actions and regulations in the field. The proposed listing also specifies the new travel requirements.

6. **Revise course credit hours:**
   - 6.1 Current course credit hours: 3 (2L/2B)
   - 6.2 Proposed course credit hours: 4 (2L/4B)
   - 6.3 Rationale for revision of course credit hours: The original course had 2 hours of lecture and a 2-hour lab. I am proposing to change credit hours to 4 (2 hours of lecture and a 4-hour lab) to allow for additional time in the field where the students will apply fisheries management techniques at regional streams and reservoirs.

7. **Proposed term for implementation:** Fall 2010

8. **Dates of prior committee approvals:**

   Biology Department: 03/05/2010

   OCSE Curriculum Committee 03/26/10

   Graduate Council 4/8/2010

   University Senate

**Attachment:** Course Inventory Form
College of Education and Behavioral Science  
School of Teacher Education  
Proposal to Revise A Program  
(Action Item)

Contact Person: Dr. S. Kay Gandy, kagandy@wku.edu, 745-2991

1. Identification of program:  
   1.1 Current program reference number: 119  
   1.2 Current program title: Education Specialist in Secondary Education  
   1.3 Credit hours: 30 hours

2. Identification of the proposed program changes:  
   * modification in admission requirements  
   *drop EDU 601/698  
   *change hour distribution for professional education component and specialization component  
   *create requirement for a research methods or statistics course  
   *eliminate requirement for EXED 516  
   *substitute EDU 699 for SEC 699

3. Detailed program description:

   In addition to meeting the admission requirements of Graduate Studies, applicants must meet the following departmental requirements:  

   Three years of teaching experience at the appropriate level. Up to two years of experience may be waived in favor of equivalent experience; and  

   Four letters of recommendation: two from graduate faculty members and two from professional associates in administrative and/or supervisory roles.  

   This program requires 30 hours beyond a master’s degree.

   In addition to meeting the admission requirements of Graduate Studies, applicants must meet the admission requirements for the School of Teacher Education and, if applicable, the department in which specialization courses are offered.  

   School of Teacher Education Requirements: Three years of teaching experience at the appropriate level. Up to two years of experience may be waived in favor of equivalent experience; and  

   Four letters of recommendation: two from graduate faculty members and two from professional associates in administrative and/or supervisory roles.  

   Students must hold initial or advanced certification in an area consistent with the focus of study.
Students must have an overall 3.0 average in specialized field coursework.

Students must submit with their application a Statement of Purpose essay of approximately 750 words. The essay should discuss the applicant’s personal, professional, and/or academic preparation for advanced graduate study, and how the EdS. degree with a specific concentration will fit into the applicant’s future professional development.

This program requires 30 hours beyond a master’s degree.

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<thead>
<tr>
<th>Professional Education Component*—5 hours</th>
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<tbody>
<tr>
<td>EDU 501, EDU 604, EDU 596</td>
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<tr>
<td>*If EDU 501 and EDU 598/596 appear on the transcript, students must enroll in EDU 601 and EDU 698.</td>
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<thead>
<tr>
<th>Related Professional Education Courses—7-13 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum of seven hours of advisor-approved, professional education graduate level courses, including EXED 516**, and SEC 699 (6 hours)</td>
</tr>
</tbody>
</table>

**An approved elective may be substituted if an Exceptional Education course is on the student’s transcript.**

<table>
<thead>
<tr>
<th>Related Specialization Courses—12-18 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum of 12 hours of advisor-approved, subject-related courses pertinent to the area of specialization.</td>
</tr>
</tbody>
</table>

**Note:** There is a limit of 6 hours of workshop and independent study credit that can be used on a Specialist program. Only three of those 6 hours can be one credit hour courses. A total of 24 hours of non-professional education courses is required for the MAE and Specialist program combined.

<table>
<thead>
<tr>
<th>Professional Education Component—3 hours</th>
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<tbody>
<tr>
<td>EDU 604 (Management of the Learning Environment)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Research Methods or Statistics—3 hours</th>
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</thead>
<tbody>
<tr>
<td>EDFN 501 (Educational Statistics) or subject-related research methods or statistics course pertinent to the area of specialization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Related Professional Education Courses—6 to 9 hours (advisor-approved professional education courses)</th>
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</table>

<table>
<thead>
<tr>
<th>Related Specialization Courses—9 to 12 hours (advisor-approved, subject-related courses pertinent to the area of specialization)</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Specialist Project—6 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 699 (Specialist Project) 6 hours</td>
</tr>
<tr>
<td>OR</td>
</tr>
</tbody>
</table>

4. **Rationale for the proposed program change:**
   *Additional requirements add a higher level of expectation for EdS applicants*
   *There is no longer a state requirement that students need to develop a portfolio
Assessment for the EdS as required in EDU 601 and EDU 698 and therefore these courses are no longer needed to satisfy state requirements.
* Changes in hour requirements allow an even balance between content areas and pedagogy.
  * The addition of a research methods or statistics course will better prepare students for their specialist projects.
  * Teacher candidates are required to take exceptional education courses as part of initial certification course work (undergraduate or graduate), so there is no longer a need to require EXED 516 in advanced graduate programs.
  * The EDU 699 course substitution will allow for more flexibility in the EdS program.

5. **Proposed term for implementation: Fall 2010**

6. **Dates of prior committee approvals:**

   School of Teacher Education               02/22/2010
   CEBS Curriculum Committee                 03/02/2010
   Professional Education Council           03/19/2010
   Graduate Council                          4/8/2010
   University Senate                         

**Attachment: Program Inventory Form**
1. Identification of program:

1.1 Program title: Planned Sixth-Year (Rank I) in Library Media Education
1.2 Degree Type: Not Applicable (Teacher Rank Classification)
1.3 Classification of Instructional Program Code (CIP): N/A
1.4 Required hours in proposed major program: Thirty (30) semester hours of unduplicated coursework in addition to the requirements for a Planned Fifth Year (Rank II) or 60 semester hours of unduplicated coursework including a master’s degree.
1.5 Special information: Non-degree Planned Sixth-Year (Rank I) for Kentucky Teachers
1.6 Program admission requirements:
   Admission requirements for the proposed Planned Sixth-Year in Library Media Education (LME) are the following:
   - An application for admission to graduate study.
   - Copies of transcripts for all college work.
   - Evidence of Kentucky Rank II status with Kentucky Media Librarian (KML) certification or Kentucky Rank II status with Instructional Computer Technology Endorsement.  (*Because Rank II status is required and the program is not a degree, no GRE/GAP score is required.*)
   Applicants with a Fifth-Year (Rank II) in a field other than library media or educational technology must complete the MS in LME for initial certification as a Kentucky media librarian at the Sixth-Year (Rank 1) level.
1.7 Catalog description:

The Planned Sixth-Year (Rank I) in Library Media Education is designed to enhance and enrich the skills and knowledge of the certified library media or educational technology specialist.

The Planned Sixth-Year (Rank I) in Library Media Education is open to applicants who meet the following admission requirements:
   - An application for admission to graduate study.
   - Copies of transcripts for all college work.
   - Evidence of Kentucky Rank II status with Kentucky Media Librarian (KML) certification or Kentucky Rank II/5th Year with an Instructional Computer Technology Endorsement.  (*Because Rank II status is required and the program is not a degree, no GRE/GAP score is required.*)
   Applicants with a Fifth-Year (Rank II) in a field other than library media or educational technology must complete the MS in LME for initial certification as a Kentucky media librarian at the Sixth-Year (Rank 1) level.
The Kentucky Rank I classification for certified school personnel requires the completion of a minimum of either (a) 30 semester hours of unduplicated and approved credit beyond the requirements for the Rank II classification (Planned Fifth Year-5th Year) or (b) 60 semester hours of approved and unduplicated graduate level credit including a master’s degree. Students may be required to meet additional admission requirements required by for additional certifications and/or endorsements, and university certificate programs appropriate to a specialization.

The proposed Planned Sixth-Year (Rank I) program in LME will require 30 semesters in unduplicated course work in addition to the requirements for a Planned Fifth Year (Rank II) or 60 unduplicated semester hours including a master’s degree that includes 12 hours in the Professional Education Component and 18 hours in the Specialization Component.

A. Professional Education Component (12 hours):
   EXED 516 Exceptional Child: Perspectives and Issues 3 hrs.
   LTCY 518 Literacy Learning and Technology 3 hrs.
   LME 519 Special Topics: Collaboration, Diversity, Leadership 3 hrs.
   LME 550 Emerging Technology in Education 3 hrs.

B. Specialization Component (18 hours):
   Courses in the specialization must be approved by the designated graduate advisor based on an applicant's prior experience, previous academic work, and career goals.
   
   Content areas for the specialization may include but are not limited to library media education, educational technology, instructional design, literacy, teacher leadership, adult education, information systems, electronic communication, writing, etc.
   
   Additional endorsements, academic certificates, and teacher certifications may include but are not limited to instructional computer technology, school media librarian, gifted-talented education, ESL, reading and writing, environmental education, etc.

2. Rationale:
   2.1 Reason for developing the proposed major program:
   The number of Kentucky Rank II classified media librarians and educational technology specialists with the MS in LME from WKU has significantly increased in the last eight years. This has created demand for a Planned Sixth-Year (Rank I) program in Library Media Education at WKU. The proposed program is designed to enhance and enrich the skills and knowledge of the certified media librarian or educational technology specialist.

   2.2 Projected enrollment in the proposed major program:
Based on current enrollment in the MS in LME program for the Rank II, enrollment in the proposed Planned Sixth-Year (Rank I) program is projected to be 20-30 students per year.

2.3 Relationship of the proposed major program to other programs now offered by the department:
Planned Sixth-Year (Rank I) programs are offered by the School of Teacher Education for elementary, middle grade, and secondary school teachers. The proposed Planned Sixth-Year (Rank I) in LME program does not duplicate these programs. The proposed program will build on the MS in LME by allowing certified media librarians and educational technology specialists to enhance their competence as educators, information specialists, curriculum leaders, instructional partners, and program developers based on their service experiences and position expectations.

2.4 Relationship of the proposed major program to other university programs:
In addition to the School of Teacher Education, three other departments offer Planned Sixth-Year (Rank I) Programs: the Department of Counseling and Student Affairs; the Department of Educational Administration, Leadership, and Research; and the Department of Communication Disorders. The programs in these other departments include course work relevant to their respective disciplines, and the proposed program will not overlap with any of them.

2.5 Relationship of the proposed major program to similar programs offered elsewhere in Kentucky and in other states (including programs at benchmark institutions):
Murray State University offers a Rank I Library Media Specialist to certified teachers for initial certification as a Kentucky school media librarian. Morehead State University offers a Rank I in Educational Technology for Instructional Computer Technology in the “area of technology integration in P-16 curriculum and instructional design.” The University of Kentucky offers a similar Rank I program for certified school media librarians and a Rank I in instructional systems technology with the Instructional Computer Technology Endorsement. In addition, Eastern Kentucky University offers a Planned Sixth-Year (Rank I) program similar to the proposed program at WKU.

Other states do not have a ranked classification/status system for certified teachers like that of the Commonwealth of Kentucky. Similar programs for advanced study in library media or educational technology outside of Kentucky are labeled in various ways, such as a career ladder or plus-30.

The proposed program at WKU will be open to those people who already hold the Kentucky Planned Fifth-Year (Rank II) with a Kentucky Media Librarian (KML) Certificate or Kentucky Planned Fifth-Year (Rank II) with Instructional Computer Technology Endorsement. Certified teachers with the MS in LME from WKU for the Planned Fifth-Year (Rank II) classification may obtain the Planned Sixth-Year
(Rank I) and the Kentucky Media Librarian Certificate (KML) or the Instructional Computer Technology Endorsement.

2.6 Relationship of the proposed major program to the university mission and objectives:
The proposed Planned Sixth-Year (Rank I) in LME program directly supports the goal of Western Kentucky University to provide “quality education and public service to the Southcentral Kentucky region and beyond. Through education and public service, WKU seeks to enhance the quality of life in the region, Commonwealth and beyond.” ([http://www.wku.edu/about.html](http://www.wku.edu/about.html))

The proposed program is aligned with the University’s **mission**: “Western Kentucky University prepares students to be productive, engaged leaders in a global society. It provides service and lifelong learning opportunities for its constituents. WKU is responsible for stewarding a high quality of life throughout its region.”

The proposed Planned Sixth-Year (Rank I) in LME program directly upholds the following Core Values of Western Kentucky University:

- Commitment to assuring quality of programs, competence of graduates, and opportunities for lifelong learning.
- Dedication to the importance of achieving excellence in all programs and for adding value to the degrees and credentials of our students.
- Commitment to contributing to improved quality of life and economic well-being of Kentuckians, especially those in our primary service area, as well as other constituents and stakeholders.

3. Objectives of the proposed major program:
The proposed Planned Sixth-Year (Rank I) in Library Media Education is designed to enhance and enrich the skills and knowledge of the certified library media or educational technology specialist. It is intended to allow professionals in media librarianship and educational technology to achieve one or more of the following professional objectives:

- Expand their professional knowledge in contemporary content and issues in library media/educational technology.
- Advance their knowledge and skills to meet the needs of professionals in library media/educational technology.
- Expand their pedagogical skills to address literacy and the needs of diverse learners from preschool to adult.
- Enhance their professional effectiveness as library media/educational technology specialists for leadership and service at the local, regional, state, and national levels.
- Offer them broader professional opportunities through additional endorsements and/certifications.
- Advance their skills as library media/educational technology specialists that foster collaboration and communication with colleagues and parents.
4. **Program description:**

4.1 **Curriculum:**

The Kentucky Rank I classification for certified school personnel requires the completion of a minimum of either (a) 30 semester hours of unduplicated and approved credit beyond the requirements for the Rank II classification (Planned Fifth Year-5th Year) or (b) 60 semester hours of approved and unduplicated graduate level credit including a master’s degree. Students may be required to meet additional admission requirements required for additional certifications and/or endorsements, and university certificate programs appropriate to a specialization.

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A. **Professional Education Component (12 hours):**

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- LME 550 Emerging Technology in Education 3 hrs.

B. **Specialization Component (18 hours):**

Courses in the specialization must be approved by the designated graduate advisor based on an applicant's prior experience, previous academic work, and career goals.

*Content areas for the specialization may include but are not limited to library media education, educational technology, instructional design, literacy, teacher leadership, adult education, information systems, electronic communication, writing, etc.*

*Additional endorsements, academic certificates, and teacher certifications may include but are not limited to instructional computer technology, school media librarian, gifted-talented education, ESL, reading and writing, environmental education, etc.*

4.2 **Accreditation, certification, approval, and/or licensure:**

Completion of this program may qualify Kentucky certified personnel for a recommendation for Rank I pay status.

4.3 **Program delivery:**

The program will be offered online.

5. **Resources:**

5.1 **Faculty:**
Because the curriculum encompasses existing courses that are taught regularly, no additional faculty will be required.

5.2 Technological and electronic informational resources (e.g., databases, e-journals): The current Blackboard instructional system at WKU will be used for delivery of instruction. Support from Distance Learning includes a variety of audio/video technologies along with appropriate training. Access to additional online information sources that support existing classes are reviewed regularly by University libraries to determine adequacy.

5.3 Facilities and equipment: Because existing courses comprise the proposed online program, current facilities are adequate.

6. **Proposed term for implementation:** Summer 2010

7. **Dates of prior committee approvals:**

   School of Teacher Education 12/16/09
   CEBS Curriculum Committee 03/02/10
   Professional Education Council 03/17/10
   Graduate Council 4/8/2010
   University Senate

**Attachment:** Program Inventory Form
Gordon Ford College of Business  
Department of Economics  
Proposal to Revise a Program  
(Action Item)

Contact Person:  Dr. Michelle Trawick, michelle.trawick@wku.edu, 5-3397

1. **Identification of program:**
   1.1 Current program reference number: 0410
   1.2 Current program title: Applied Economics
   1.3 Credit hours: 30

2. **Identification of the proposed program changes:**

   Modify the “Options” in the program curriculum:

   - Combine Options I (Applied Analyst), Option II (Social and Policy Issues) and Option III (Advance Academic) into a single program that permits student elective choice

   - Increase statistical/quantitative training component

   - Increase number of 400G hours students may take (currently limited to 6)
3. **Detailed program description:**

<table>
<thead>
<tr>
<th>Current Option I</th>
<th>Current Option II</th>
<th>Current Option III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applied Analyst</strong></td>
<td><strong>Social &amp; Policy Issues</strong></td>
<td><strong>Advanced Academic</strong></td>
</tr>
<tr>
<td>Core (9 hours)</td>
<td>Core (9 hours)</td>
<td>Core (9 hours)</td>
</tr>
<tr>
<td>Econ 502 (Applied Micro)</td>
<td>Econ 502 (Applied Micro)</td>
<td>Econ 502 (Applied Micro)</td>
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<tr>
<td>Econ 503 (Applied Macro)</td>
<td>Econ 503 (Applied Macro)</td>
<td>Econ 503 (Applied Macro)</td>
</tr>
<tr>
<td><strong>Plus:</strong></td>
<td><strong>Plus:</strong></td>
<td><strong>Plus:</strong></td>
</tr>
<tr>
<td>Econ 596 (Applied Project)</td>
<td>Econ 596 Applied Project</td>
<td>Econ 596 (Applied Project) or 599 (Thesis)</td>
</tr>
<tr>
<td>Econ 594 (Forecasting)</td>
<td>Econ 465G (Regression &amp; Econometrics)</td>
<td>Econ 464G (Intro to Mathematical Econ)</td>
</tr>
<tr>
<td>9 Hours From:</td>
<td>12 Hours From:</td>
<td>Electives (6 hours) including up to 6 hours of approved non-economics courses</td>
</tr>
<tr>
<td>Econ 475G (Urban &amp; Regional)</td>
<td></td>
<td>Econ 585 (Topics in Macroeconomics)</td>
</tr>
<tr>
<td>Econ 571 (Public Sector)</td>
<td>Econ 571 (Public Sector)</td>
<td>Econ 571 (Public Sector)</td>
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<tr>
<td>Econ 595 (Labor)</td>
<td>Econ 595 (Labor)</td>
<td>Econ 595 (Labor)</td>
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<tr>
<td>Econ 591 (International)</td>
<td>Econ 591 (International)</td>
<td>Econ 591 (International)</td>
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<tr>
<td>400G Courses</td>
<td>400G Courses</td>
<td>400G Courses</td>
</tr>
<tr>
<td>Electives (6-9 hours) including up to 6 hours of approved non-economics courses and up to 6 hours of 400G econ courses</td>
<td>Electives (6-9 hours) including up to 6 hours of approved non-economics courses and up to 6 hours of 400G econ courses</td>
<td>Electives (9-12 hours) including up to 6 hours of approved non-economics courses;</td>
</tr>
</tbody>
</table>
### Proposed Program

<table>
<thead>
<tr>
<th>Core (12-15 hours)</th>
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<tbody>
<tr>
<td>Econ 502 (Applied Micro)</td>
</tr>
<tr>
<td>Econ 503 (Applied Macro)</td>
</tr>
<tr>
<td>Econ 506 (Applied Statistics)</td>
</tr>
<tr>
<td><strong>Econ 465G (Regression &amp; Econometrics)</strong>*</td>
</tr>
<tr>
<td>Econ 594 (Forecasting)</td>
</tr>
</tbody>
</table>

Plus:

- Econ 596 (Applied Project) or Econ 599 (Thesis)

**Electives (9-12 hours)** including up to 6 hours of approved non-economics courses and **up to 12 hours of 400G courses**

*Waived if student has taken Econ 465 or equivalent as an undergraduate.

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**4. Rationale for the proposed program change:**

The Applied Economics masters program restarted in the Fall of 2007. The proposed program changes take account of information on skills helpful in student job placement, student interest, and staffing capability gathered since the inception of the new program.

Student job placement from WKU graduates and other institutions such as Miami University is strongly correlated with statistical/quantitative/technical skills. The proposal increases the statistics/quantitative requirement from one course to three courses so that the program better prepares students to compete for M.A. level jobs. The three course sequence covers basic regression and econometrics skills (ECON 465G), a wide-ranging course in applied statistics including database management and research methods (ECON 506) and a more advanced course building from these two (Econ 594- Forecasting).

The existing Options overlap to a great extent. Given staffing limitations and course offerings, these options had become indistinguishable in practice. This proposal combines these options, in part, to increase transparency for students and simplicity for administrative tracking and processing. Students considering pursuing a Ph.D. in economics continue to have the flexibility to pursue electives and independent studies in advanced theory courses.
5. **Proposed term for implementation and special provisions (if applicable):**

   Fall 2010.

6. **Dates of prior committee approvals:**

   Economics Department  **February 19, 2010**

   Gordon Ford College of Business Graduate Curriculum Committee  **March 15, 2010**

   Graduate Council  **4/8/2010**

   University Senate  

**Attachment: Program Inventory Form**