UNIVERSITY CURRICULUM COMMITTEE
WESTERN KENTUCKY UNIVERSITY

REPORT TO THE SENATE:

DATE: **March 5, 2007**
FROM: **Julie Shadoan, Chair**

The University Curriculum Committee submits the following items from the February 22, 2007, meeting for approval by the University Senate:

NOTE: Proposals marked with an "*" were action items by the UCC and are consent items for the Senate. All other items are information items only.

A. UCC Steering Committee:

Revision of Guidelines for Proposals to "Cross-List a Course"*
Revision of Form for Proposals to "Cross-List a Course"*

B. Gordon Ford College of Business:

1. Create New Minor:

   REF # ____: Sales*

2. Revise Minor Program:

   REF #332: Business Administration*

C. Potter College of Arts

1. One-Time Course:

   FLK 405: Kentucky Roots Music

2. Delete Course:

   INT 380: European Folklife
   FLK 463: Intercultural Communication

D. Bowling Green Community College:

1. One-Time Course:

   BIO 099C: Human Anatomy and Physiology Preparation

2. Delete Course:

HINS 291C: Adv. Medical Terminology
CFSC 191C: Child Development
CFCS 192C: Working with Young Children and Families

3. Suspend Course:

GRM 102C: Elem. German Contd.

4. Create Community College Equivalent Course:

LEA 200C: Intro. To Leadership Studies

5. Revise Course Catalog Description:

INS 275C: Web and Media Design

E. Ogden College of Science and Engineering:

1. One-time Course:

MATH 142: Mathematics for Life Sciences

2. Revise Course Number:

CM 326: Construction Law
CM 362: Construction Scheduling

3. Revise Course Pre/Co-reqs:

CM 337: Applied Strength of Materials
BIOL 328: Immunology
BIOL 441: Cell Biology

4. Delete Course:

EE 360: Continuous Control Systems
EE 435: Power Systems III
EE 439: Power Systems Harmonics
EET 111: Electricity
EET 113: Electricity I Lab
EET 121: Electricity II
EET 123: Electricity II Lab
EET 261: Electronic Circuits I
EET 263: Electronic Circuits I Lab
EET 271: Electronic Circuits II
EET 273: Electronic Circuits II Lab
EET 281: Digital Circuits
EET 283: Digital Circuits Lab

EET 301: Circuit Design
EET 303: Circuit Design Lab
EET 317: Electricity & Machinery
EET 351: Digital Systems I
EET 353: Digital Systems I Lab
EET 369: Co-op in EET
EET 371 : Communication Systems
EET 373 : Lab Communication Systems
EET 377: Adv Communication System
EET 379: Adv Communication System Lab
EET 401: AC/DC Machines
EET 403: Lab AC/DC Machines
EET 405: Elec. Power Transmission
EET 417: Elect & Instrumentation
EET 419: Lab Electron & Instrumentations
EET 427: Programmable Logic Controllers
EET 428: Programmable Controllers Lab
EET 459: Control System Theory
EET 460: Lab Control System
EET 481: Advanced Electronics
EET 483: Advanced Electronics Lab
EET 490: Senior Seminar in EET
EET 491: Digital Systems II
EET 492: Digital Systems II Lab
EET 493: EET Senior Project
MA 096: Intermediate Algebra

5. Delete Program:

REF # 538: Electrical Engineering Technology

6. Create New Course:

CM 250: Contract Documents*
CM 400: Construction Administration*
BIOL 150: Investigative Biotechnology Core I*
BIOL 151: Investigative Biotechnology Core II*
BIOL 153: Investigative Biotechnology Module*
BIOL 199: Intro. To the Research Experience*
BIOL 232: Principles of Wildlife Ecology & Management*
BIOL 275: Colloquia*
BIOL 312: Bioinformatics*
CHEM 111: Intro. To Forensic Chemistry*

7. Multiple Course Revisions:

CM 356: Basic Structural Design*
BIOL 407: Virology*
BIOL 495: Molecular Genetics*
EE 200: Electrical Engineering Design II*

8. Create Minor Program:

REF #____: Investigative Biotechnology*

9. Revise Program:

REF #533: Construction Management*
REF #764: Recombinant Genetics*
REF #361: Floodplain Management*

General Guidelines for Proposals to Create an Equivalent Course

- This form is used to create an equivalent course in another university department/unit excluding the Bowling Green Community College. To create an equivalent course at BGCC, use the Proposal to Create a Community College Equivalent Course form.

- Proposals to create equivalent courses are **consent** items on the UCC agenda.

- Each proposal to create an equivalent course must be accompanied by a completed Course Inventory Form that lists the equivalent courses. Proposals lacking the form will not be considered by the UCC and will be returned to the sponsoring department/unit.

- An equivalent course must have the same number, title, abbreviated title, credit hours, prerequisites or corequisites, and catalog course listing as the existing course.

- If the existing course is to be equivalent with more than one department/unit, all proposed equivalent courses should be included on one proposal form. For multiple equivalency proposals, a rationale must be given for each course deemed equivalent. A separate Course Inventory Form must be submitted for each equivalent course.

- Proposals to create equivalent courses must be approved by the department/unit in which the existing course is listed and each department/unit in which the course in which the course is proposed to be equivalent. If the departments/units are in different colleges, each college curriculum committee must approve the proposal for equivalency. Approval through each different department/unit and college may be sought concurrently.

NOTE: Creating an equivalent course is not the same as cross-listing a course. The cross-listing process occurs when building the schedule of classes for a specific term, and courses are to be taught at the same time by the same instructor (e.g. PSY 412/412G). Equivalent courses may, but are not required, to be cross-listed unless the courses are taught by the same instructor at the same time.

Proposal Date:

Enter College Name Here
Department of _____
Proposal to Create an Equivalent Course
(Consent Item)

Contact Person: Name, email, phone

1. Identification of existing course:

1.1 Current course prefix (subject area) and number:
1.2 Course title:
1.3 Credit hours:

2. Identification of proposed course prefix(es) and numbers:

3. Rationale for creation of equivalent course:

4. Proposed term for implementation:

5. Dates of prior committee approvals:

_____Department/Division: _____

_____Curriculum Committee _____

Professional Education Council _____
(if applicable)

General Education Committee _____
(if applicable)

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Gordon Ford College of Business
Western Kentucky University
Office of the Dean
745-6311

REPORT TO THE UNIVERSITY CURRICULUM COMMITTEE

Date: February 22, 2007

FROM: Gordon Ford College of Business Curriculum Committee

The Gordon Ford College of Business Curriculum Committee submits the following items for consideration:

Type of Item	Description of Item and Contact Information
Action	Proposal to Create a New Minor Program Contact: Dr. Lukas Forbes Lukas.forbes@wku.edu Phone: 5-2993
Action	Proposal to Revise a Program Minor in Business Administration Contact: Dr. Robert Reber Robert.reber@wku.edu Phone: 5-2490

Ford College of Business
Department of Marketing
Proposal to Create a New Minor Program
(Action Item)

Contact Person: Dr. Lukas Forbes, Lukas.forbes@wku.edu, 270.745.2993

1. Identification of program:

1.1 Program title: Minor in Sales
1.2 Required hours in minor program: 18
1.3 Special information: This will be an interdisciplinary program housed in the Marketing department and coordinated with various departments across campus. It is suitable for any student who will have personal selling responsibilities in their career, both directly or indirectly.
1.4 Catalog description: The sales minor provides an attractive option for students interested in professional selling. Combination of a sales minor with a variety of fields such as finance, accounting, management, advertising, communication, health care and hospitality services, public relations, fashion retailing and numerous others would provide very strong career options. The minor in sales (reference number XX) requires 18 semester hours. All students must complete a 12 hour core composed of MKT 220, 325, and 425 along with COMM 263. Three of the remaining credits must be chosen from COMM 345 or PSY 350, and three of the remaining credits must be chosen from MKT 323, 424 or 427 (or other MKT course approved by Marketing Department head). Sales minors must earn a "C" or higher in all marketing classes used as part of the minor on the degree program. At least 6 credits in the sales minor must be unduplicated from courses counted in the major. More detailed information is available from the Department of Marketing.

2. Rationale:

2.1 Reason for developing the proposed minor program:

- This minor will be the only minor of its type offered in the state of Kentucky and the surrounding 4 states. It will provide outstanding recruiting potential to attract top high school students interested in sales.
- This minor aligns with business demands for trained, effective sales people. This minor will increase the ability for the College of Business (and University in general) to interact with the surrounding business community.
- The minor is needed for the Center for Professional Selling to receive certification and for the University to begin a sales certification program.
- This minor will align itself with the formation of a branch of Pi Sigma Epsilon, that national sales fraternity, at WKU
- This minor will provide a means for students with majors in other disciplines such as engineering, health services, biology, computer

science, physical education, art, education, theatre and dance, and others to understand enough about sales to impact their careers in their own fields.

- This minor provides education in a field not currently addressed by WKU.

2.2 Projected enrollment in the proposed minor program: It is believed that the number of sales minors will be substantial. Departmental expectations are that this minor will exceed 100 students within 3-5 years. Using the University of Akron as an example, they formed a Sales Center and Sales minor and, within 5 years, have over 350 minors.

2.3 Relationship of the proposed minor program to other programs now offered by the department: This proposed minor is a wonderful complement to our existing marketing major and minors in that it allows the students to specialize in sales. Currently, approximately 60% of all students taking business classes will have their first or second job in sales, so this minor allows students to gain valuable expertise in an area in which they are likely to be employed

2.4 Relationship of the proposed minor program to other university programs: This minor would be a wonderful complement to existing majors in which students will major in one area but perform numerous sales activities (e.g., a finance major who will work as a financial planner; an advertising major who will sell advertising space).

2.5 Similar minor programs offered elsewhere in Kentucky and in other states (including programs at benchmark institutions): Currently, there is not one other University in the state of Kentucky that offers a sales minor. This minor allows our University to be a state leader in this much needed area.

2.6 Relationship of the proposed minor program to the university mission and objectives: This minor will be the only one of its kind offered in the state of Kentucky. This minor will assist in recruiting efforts for students interested in this field. Additionally, this minor will more adequately prepare students for a field they may likely work within. Additionally, students with a sales course focus have salaries up to 25% higher upon graduation, which will increase our student's value in the market place. This minor has also been highlighted by the business community as a wonderful "next step" in the course offerings at Western.

3. **Objectives of the proposed minor:**

The sales minor will:

- enhance student learning in a much needed area.

- enhance the interface between the business and sales community in the region and the University by providing for the development of sales laboratories in actual businesses along with speakers/guest lecturers for classes in professional selling.

- broaden the availability of sales courses for regular students and members of the community throughout the University.

- establish effective collaboration between the College of Business and other colleges at Western with respect to professional selling.

- enhance the potential for grants related to program development in sales.

4. Curriculum:

Proposed Curriculum for a Minor in Sales
Total Sales Minor: 18 Credits
(6 which have to be unduplicated)

REQUIRED COURSES: (12 Credits)

COMM 263	Fundamentals of Communication & Culture
MKT 220	Basic Marketing
MKT 325	Personal Selling
MKT425	Advanced Personal Selling

ELECTIVE COURSES: (3 Credits)
Pick one course from:

COMM 345	Advanced Public Speaking
PSY 350	Social Psychology

MARKETING ELECTIVE: (3 Credits)
Pick any one course from:

MKT323	Services Marketing
MKT 424	Sales Management
MKT 427	Entrepreneurial Marketing

Or any marketing elective approved by the Department Head.

5. Budget implications:

The addition of this minor will have minor budgetary implications. The course offerings found within this major will be instructed by existing faculty and do not require additional resources. In addition, highly qualified local business professionals have offered to teach some classes or serve as guest speakers. Our department is also coordinating with departments outside the college of business to develop courses for sales.

6. Proposed term for implementation: Fall 2007

7. Dates of prior committee approvals:

Department/Division: ____1/18/2007_____

GFCB Curriculum Committee _____1/31/2007_____

University Curriculum Committee _____2/22/2007_____

University Senate _____

Attachment: Program Inventory Form

Proposal Date: October 27, 2006

Gordon Ford College of Business

Proposal to Revise a Program

(Action Item)

Contact Person: Bob Reber e-mail: Robert.reber@wku.edu Phone: 745-6311

1. Identification of the programs:

1.1 Current program reference number: 332
1.2 Current program title: Minor in Business Administration
1.3 Credit Hours: 24-33

2. Identification of proposed program changes:

Request exception to the policy that half the credit hours in a major or minor must be upper level (300-400) courses.

3. Catalog statement of proposed policy: (changes noted in bold italics)

***Current program*:**		***Proposed program:***	
Course	**Hours**	**Course**	**Hours**
ACCT 200—Financial Accounting	3	ACCT 200—Financial Accounting	3
ACCT 201—Managerial Accounting	3	ECON 202—Microeconomics OR	
ECON 202—Microeconomics	3	ECON 203---Macroeconomics	3
ECON 203---Macroeconomics	3	CIS 141—Computer Literacy	3
CIS 141—Computer Literacy	3	MATH 116—College Algebra	3
MATH 116—College Algebra	3	FIN 330—Principles of Fin. Mgt.	3
ECON 206—Statistics	3	***MGT 210—Organization & Mgt.***	***3***
FIN 330—Principles of Fin. Mgt.	3	***MKT 220—Basic Mkt. Concepts***	***3***
MGT 300—Legal Environment	3	***Upper level business elective with at***	
MGT 310—Organization & Mgt.	3	***least two areas represented***	***9***
MKT 320—Basic Mkt. Concepts	3		

3. Rationale for proposed program change:
The college recently approved moving three core courses to lower division to allow students to take key courses earlier and to facilitate transfer of courses from the community colleges. These same courses, however, are still instrumental in providing the foundations for the functional areas of business and therefore are best for the minor.

5. Proposed term for implementation: Fall, 2007.

6. Dates of prior committee approvals:

Gordon Ford College of Business
Curriculum Committee: 11/08/06

University Curriculum Committee _____

University Senate _____

Attach program inventory forms

Potter College of Arts & Letters
Western Kentucky University
745-2345

REPORT TO THE UNIVERSITY CURRICULUM COMMITTEE

Date: February 22, 2007

The Potter College of Arts & Letters submits the following items for consideration:

Type of Item	Description of Item & Contact Information
Information	One-Time Only Course Offering (Fall 2007) FLK 405 Kentucky Roots Music Contact: Michael Ann Williams Michael.Williams@wku.edu x 55898
Consent	Delete Course INT 380 European Folklife Contact: Michael Ann Williams Michael.Williams@wku.edu x 55898
Consent	Delete Course FLK 463 Intercultural Communication Contact: Michael Ann Williams Michael.Williams@wku.edu x 55898

Proposal Date: January 11, 2007

Potter College of Arts and Letters
Department of Folk Studies and Anthropology
Proposal to Delete a Course
(Consent Item)

Contact Person: Michael Ann Williams
michael.williams@wku.edu, 5-5898

1. Identification of course:

1.1 Current course prefix (subject area) and number: FLK 463
1.2 Course title: Intercultural Communication
1.3 Credit hours: 3

2. Rationale for the course deletion: Course is no longer taught in the department.

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

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Folk Studies and Anthropology Department ____1/22/07_____

Potter College Curriculum Committee __2/1/07_____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 11, 2007

Potter College of Arts and Letters
Department of Folk Studies and Anthropology
Proposal to Delete a Course
(Consent Item)

Contact Person: Michael Ann Williams
michael.williams@wku.edu, 5-5898

1. Identification of course:

1.1 Current course prefix (subject area) and number: INT 380
1.2 Course title: European Folklife
1.3 Credit hours: 3

2. Rationale for the course deletion: The prefix is no longer used for regular courses.

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

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Folk Studies and Anthropology Department _____1/22/07_____

Potter College Curriculum Committee ____2/01/07_____

Graduate Council _____

University Senate _____

Attachment: Course Inventory Form

Bowling Green Community College
of Western Kentucky University
Office of the Dean
780-2556

REPORT TO THE UNIVERSITY CURRICULUM COMMITTEE

DATE: 9 February 2007

FROM: The Curriculum Committee of the Bowling Green Community College

The Curriculum Committee of the Bowling Green Community College submits the following items for consideration:

Type of Item	***Description of Item and Contact Information***
Information Only	**One-Time-Only Course Offering** BIO 099C Human Anatomy and Physiology Preparation Contact: Deborah Lively deborah.lively@wku.edu Phone: 780-2540
Consent	**Proposal to Delete a Course** HINS 291C Advanced Medical Terminology Contact: Karen Sansom karen.sansom@wku.edu Phone: 780-2567 CFSC 191C Child Development CFSC 192C Working with Young Children and Families Contact: Deborah Lively deborah.lively@wku.edu Phone: 780-2540 **Proposal to Suspend a Course** GRM 102C Elementary German Continued Contact: Deborah Lively deborah.lively@wku.edu Phone: 780-2540 **Proposal to Create a Community College Equivalency Course** LEA 200C Introduction to Leadership Studies Contact: Ashley Chance-Fox ashley.chance@wku.edu Phone: 745-8962 Heather Strode heather.strode@wku.edu Phone: 780-2584 **Proposal to Revise a Course Catalog Description** INS 275C Web and Media Design

	Contact: George Kontos george.kontos@wku.edu Phone: 780-2588

Proposal Date:
11/10/2006

Bowling Green Community College
Department of Healthcare Information Systems
Proposal to Delete a Course
(Consent Item)

Contact Person: Karen Sansom, Karen.sansom@wku.edu Phone: 780 2567

1. Identification of course:

1.1 Current course prefix (subject area) and number: HINS 291C
1.2 Course title: Advanced medical Terminology
1.3 Credit hours: 2

2. Rationale for the course deletion:
This course has not been taught since Spring 1993. It is a cross-referenced class for a certificate program that is no longer being taught. It is not listed in the course catalog. This course is being deleted from the Course Inventory per request of the Registrars Office.

3. Effect of course deletion on programs or other departments, if known:
There will be no effect on the program, students, or other programs or departments by deleting this course.

4. Proposed term for implementation:
Fall 2007

5. Dates of prior committee approvals:

Department/Division:	11/13/06
Curriculum Committee	02/08/07
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: November 7, 2006

Bowling Green Community College
Liberal Arts and Sciences Division
Proposal to Delete a Course
(Consent Item)

Contact Person: Deborah Lively, Deborah.lively@wku.edu, 780-2540

1. Identification of course:

1.1 Current course prefix (subject area) and number: CFSC 191C
1.2 Course title: Child Development
1.3 Credit hours: 3

2. Rationale for the course deletion:

The course has not been offered by the Community College for several years as students wishing to take this course do so at the main campus.

3. Effect of course deletion on programs or other departments, if known:

None

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Liberal Arts & Sciences Division: ____November 14, 2006

BGCC Curriculum Committee ____February 9, 2007__

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: November 7, 2006

Bowling Green Community College
Liberal Arts and Sciences Division
Proposal to Delete a Course
(Consent Item)

Contact Person: Deborah Lively, Deborah.lively@wku.edu, 780-2540

1. Identification of course:

1.1 Current course prefix (subject area) and number: CFSC 192C
1.2 Course title: Working with Young Children and Families
1.3 Credit hours: 3

2. Rationale for the course deletion:

The course has not been offered by the Community College for several years as students wishing to take this course do so at the main campus.

3. Effect of course deletion on programs or other departments, if known:

None

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Liberal Arts & Sciences Division:	November 14, 2006
BGCC Curriculum Committee	February 9, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: November 7, 2006

Bowling Green Community College
Liberal Arts and Sciences Division
Proposal to Suspend a Course
(Consent Item)

Contact Person: Deborah M. Lively, Deborah.lively@wku.edu, 780-2540

1. Identification of course:

1.1 Current course prefix (subject area) and number: GRM 102C
1.2 Course title: Elementary German Continued
1.3 Credit hours: 3

2. Rationale for the course suspension:

There has been no demand for this course in several years. We do anticipate the chance to offer GRM 101C in the future; therefore, we wish to suspend instead of delete the course.

3. Effect of course suspension on programs or other departments, if known:

None

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Liberal Arts & Sciences Division:	November 14, 2006
BGCC Curriculum Committee	February 9, 2007
General Education Committee	_____
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: 01/26/07

Bowling Green Community College
Department of Leadership Studies
Proposal to Create a Community College Equivalent Course
(Consent Item)

Contact Persons:

Ashley Chance Fox
Ashley.Chance@wku.edu
5-8962

Heather Strode
Heather.Strode@wku.edu
0-2584

1. Identification of course:

1.1 Current course prefix (subject area) and number: LEAD 200
1.2 Course title: Introduction to Leadership Studies
1.3 Credit hours: 3

2. Identification of proposed Community College course:

2.1 Community College number: LEA 200C
2.2 Community College title: Introduction to Leadership Studies
2.3 Credit hours: 3

3. Proposed term for implementation: Summer 2007

4. Dates of prior committee approvals:

Liberal Arts and Sciences Division: ___01/31/07_____

BGCC Curriculum Committee ____02/09/07_____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: February 8, 2007

Department of Business and Computer Studies
Proposal to Revise Course Catalog Listing
(Consent Item)

Contact Person: George Kontos, george.kontos@wku.edu, (270)780-2588

1. Identification of course:

1.1 Course prefix (subject area) and number: INS 275C
1.2 Course title: Web and Media Design
1.3 Credit hours: 3

2. Current course catalog listing:
Prerequisites: BT 180C or instructor's permission
Includes study of technical aspects, design, and limitations in presentation graphics and Internet based media. (fall, spring, on demand).

3. Proposed course catalog listing:
Prerequisites: BT 180C or instructor's permission
Examines technical aspects, design, and limitations in Internet-based media and presentation graphics. Includes study of software for designing and publishing web pages and web sites. Emphasis is on both planning and creating the web site.

4. Rationale for revision of the course catalog listing:
The proposed course description will more accurately describe what students will learn as a result of taking the class.

5. Proposed term for implementation:
Fall 2007

6. Dates of prior committee approvals:

Business and Computer Studies Division:	January 24, 2007
BGCC Curriculum Committee	February 9, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

AGENDA

OGDEN COLLEGE OF SCIENCE AND ENGINEERING
OFFICE OF THE DEAN
745-6371

REPORT TO THE UNIVERSITY CURRICULUM COMMITTEE

DATE: February 22, 2007

FROM: OGDEN COLLEGE OF SCIENCE AND ENGINEERING

The Ogden College of Science and Engineering Curriculum Committee submits the following items for consideration:

Type of Item	***Description of Item***
Information	One-time-only offering MATH 142, Mathematics for Life Sciences Contact: Dr. Peter Hamburger Peter.hamburger@wku.edu 5-3652
Consent	Revise Course Number CM 326, Construction Law Contact: Dr. Denise Gravitt Denise.gravitt@wku.edu 5-2176
Consent	Revise Course Number CM 362, Construction Scheduling Contact: denise.gravitt@wku.edu 5-2176
Consent	Revise Course Number BIOL 220, Introduction to Molecular and Cell Biology Contact: Dr. Nancy Rice Nancy.rice@wku.edu 5-5995 PULLED
Consent	Revise Course Number BIOL 221, Introduction to Molecular and Cell Biology Laboratory Nancy.rice@wku.edu 5-5995 PULLED
Consent	Revise Course Prerequisites/Corequisites CM 337, Applied Strength of Materials Contact: Dr. Denise Gravitt Denise.gravitt@wku.edu 5-2176
Consent	Revise Course Prerequisites BIOL 328, Immunology Contact: Dr. Cheryl Davis Cheryl.davis@wku.edu 5-6524
Consent	Revise Course Prerequisites BIOL 411, Cell Biology Contact: Dr. Nancy Rice Nancy.rice@wku.edu 5-5995

Consent	Delete Course EE 360, Continuous Control Systems Contact: Dr. Stacy Wilson Stacy.wilson@wku.edu 5-5848
Consent	Delete Course EE 435, Power Systems III Contact: Dr. Stacy Wilson Stacy.wilson@wku.edu 5-5848
Consent	Delete Course EE 439, Power System Harmonics Stacy.wilson@wku.edu 5-5848
Consent	Delete Multiple Courses EET 111, 113, 121, 123, 261, 263, 271, 273, 281, 283, 301, 303, 317, 351, 353, 369, 371, 373, 377, 379, 401, 403, 405, 417, 419, 427, 428, 459, 460, 481, 483, 490, 491, 492, 493 Stacy.wilson@wku.edu 5-5848
Consent	Delete Course MATH 096, Intermediate Algebra Contact: Linda Pulsinelli Linda.pulsinelli@wku.edu 5-6232
Consent	Delete a Program Ref. #538, Electrical Engineering Technology Contact: Dr. Stacy Wilson Stacy.wilson@wku.edu 5-5848
Action	New Course Proposal CM 250, Contract Documents Contact: Dr. Denise Gravitt Denise.gravitt@wku.edu 5-2176
Action	New Course Proposal CM 400, Construction Administration Denise.gravitt@wku.edu 5-2176
Action	New Course Proposal BIOL 150, Investigative Biotechnology Core I Contact: Dr. Nancy Rice Nancy.rice@wku.edu 5-5995
Action	New Course Proposal BIOL 151, Investigative Biotechnology Core II Contact: Dr. Nancy Rice Nancy.rice@wku.edu 5-5995
Action	New Course Proposal BIOL 153, Investigative Biotechnology Module Nancy.rice@wku.edu 5-5995
Action	New Course Proposal BIOL 199, Introduction to the Research Experience Nancy.rice@wku.edu 5-5995
Action	New Course Proposal BIOL 232, Principles of Wildlife Ecology &

	Management Contact: Dr. Michael Stokes Michael.stokes@wku.edu 5-6009
Action	New Course Proposal BIOL 275, Colloquia Nancy.rice@wku.edu 5-5995
Action	New Course Proposal BIOL 311, Bioinformatics Contact: Dr. Claire Rinehart Claire.rinehart@wku.edu 5-5997
Action	New Course Proposal CHEM 103, Introduction to Forensic Chemistry Contact: Dr. Lowell Shank Lowell.shank@wku.edu 5-4986
Action	Multiple Revisions to a Course CM 356, Basic Structural Design Dr. Denise Gravitt Denise.gravitt@wku.edu 5-2176
Action	Multiple Revisions to a Course BIOL 407, Virology Contact: Dr. Claire Rinehart Claire.rinehart@wku.edu 5-5997
Action	Multiple Revisions to a Course BIOL 495, Molecular Genetics Claire.rinehart@wku.edu 5-5997
Action	Multiple Revisions to a Course EE 200, Electrical Engineering Design II Contact: Dr. Stacy Wilson Stacy.wilson@wku.edu 5-5848
Action	Create a New Minor Program Investigative Biotechnology Contact: Dr. Nancy Rice Nancy.rice@wku.edu 5-5995
Action	Revise a Program Ref. #533, Construction Management Contact: Dr. Denise Gravitt Denise.gravitt@wku.edu 5-2176
Action	Revise a Program Ref. #764, Recombinant Genetics Contact: Dr. Nancy Rice Nancy.rice@wku.edu 5-5995
Action	Revise a Program Ref. #361, Floodplain Management Contact: Dr. Warren Campbell Warren.campbell@wku.edu 5-8988

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Revise Course Number
(Consent Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of course:

1.5 Current course prefix (subject area) and number: CM 326
1.6 Title: Construction Law
1.7 Credit hours: 3

2. Proposed course number: CM 426

3. Rationale for the revision of course number: Proposed course number clearly reflects the level and amount of work expected in the course and the year in which students will be taking the course according to the curricular sequence guide and the prerequisite of senior standing.

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept____1/23/2007_____

Ogden College Curriculum Committee _____2/1/2007_____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Revise Course Number
(Consent Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of course:

1.1 Current course prefix (subject area) and number: CM 362
1.2 Course title: Construction Scheduling
1.3 Credit hours: 3

2. Proposed course number: CM 462

3. Rationale for the revision of course number: Proposed course number clearly reflects both the year in which the course is taken by students as suggested in the program curricular sequence guide and the level of critical thinking and work expected from the students.

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept_____1/23/2007____

Ogden College Curriculum Committee _____2/1/2007_____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of course:

1.1 Course prefix (subject area) and number: CM 337
1.2 Course title: Applied Strength of Materials
1.3 Credit hours: 3

2. Current prerequisites: CM 227 or EM 221 or PHYS 227
Current corequisites: CM 339

3. Proposed prerequisites: Prerequisite CM 227, or permission of instructor

4. Rationale for the revision of prerequisites: EM 221 and PHYS 227 have not been taken by any students in the program. The students in the Construction Management major are required to take CM 227. Other students that may transfer into the program can be handled on an individual basis if they do not have CM 227 or an equivalent course. Remove the corequisite because students from multiple majors may take CM 337, but are not all required to take CM 339. Only students required to take CM 339 need to take CM 337 at the same time.

5. Proposed term for implementation: Fall 2007

6. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept.___1/23/2007_____

Ogden College Curriculum Committee _____2/1/2007_____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 22, 2007

Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)

Contact Person: Cheryl D. Davis, Cheryl.Davis@wku.edu; 745-6524

1. Identification of course:

1.1 Course prefix (subject area) and number: BIOL 328
1.2 Course title: Immunology
1.3 Credit hours: 4

2. Current prerequisites:

BIOL 220/221

3. Proposed prerequisites:

BIOL 320/322 or BIOL 327

4. Rationale for the revision of prerequisites:

BIOL 220/221 has undergone a change in course number from BIOL 220/221 to BIOL 320/322. In addition, BIOL 327 (Genetics) now has sufficient molecular content to adequately prepare students for the molecular content of BIOL 328.

5. Effect on completion of major/minor sequence:

The proposed change will open this course to students majoring in the newly revised major, Investigative Biotechnology. The proposed change will have no effect on completion of the major/minor sequence by biology majors, biochemistry majors, or medical technology majors.

6. Proposed term for implementation :
Fall 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: January 22, 2007

Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)

Contact Person: Nancy A. Rice, Nancy.Rice@wku.edu; 745-5995

1. Identification of course:

1.1 Course prefix (subject area) and number: BIOL 411
1.2 Course title: Cell Biology
1.3 Credit hours: 3

2. Current prerequisites:

BIOL 220/221and junior or senior status or consent of instructor

3. Proposed prerequisites:

BIOL 320/322 or BIOL 327

4. Rationale for the revision of prerequisites:

BIOL 220/221 has undergone a change in course number from BIOL 220/221 to BIOL 320/322. In addition, BIOL 327 (Genetics) now has sufficient molecular content to adequately prepare students for the molecular content of BIOL 411.

5. Effect on completion of major/minor sequence:

The proposed change will open this course to students majoring in the newly revised major, Investigative Biotechnology. The proposed change will have no effect on completion of the major/minor sequence by biology majors, biochemistry majors, or medical technology majors.

6. Proposed term for implementation :
Fall 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Ogden College of Science and Engineering
Department of Engineering
Proposal to Delete a Course
(Consent Item)

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 55848

1. Identification of course:

1.1 Current course prefix (subject area) and number: EE 360
1.2 Course title: Continuous Control Systems
1.3 Credit hours: 3.0

2. Rationale for the course deletion:

EE 360 was created when the electrical engineering program was initially created. After discussions with the University of Louisville, the content in this course was moved to the senior year and into the course EE 460.

3. Effect of course deletion on programs or other departments, if known:

There will be no effect on other programs or departments. This course is not required by any other program.

4. Proposed term for implementation:

Fall 2007

5. Dates of prior committee approvals:

Department of Engineering _January 23, 2007___

OSCE Curriculum Committee _February 1, 2007___

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: 1/18/07

Ogden College of Science and Engineering
Department of Engineering
Proposal to Delete a Course
(Consent Item)

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 55848

1. Identification of course:

1.1 Current course prefix (subject area) and number: EE 435
1.2 Course title: Power Systems III
1.3 Credit hours: 3.0

2. Rationale for the course deletion:

EE 435 was created when the electrical engineering program was initially created. This course has never been taught and no plans for teaching this course exist.

3. Effect of course deletion on programs or other departments, if known:

There will be no effect on other programs or departments. This course is not required by any other program.

4. Proposed term for implementation:

Fall 2007

5. Dates of prior committee approvals:

Department of Engineering _January 23, 2007 ___

OSCE Curriculum Committee _February 1, 2007____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: 1/18/07

Ogden College of Science and Engineering
Department of Engineering
Proposal to Delete a Course
(Consent Item)

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 55848

1. Identification of course:

1.1 Current course prefix (subject area) and number: EE 439
1.2 Course title: Power System Harmonics
1.3 Credit hours: 3.0

2. Rationale for the course deletion:

EE 439 was created when the electrical engineering program was initially created. This course has never been taught and no plans for teaching this course exist.

3. Effect of course deletion on programs or other departments, if known:

There will be no effect on other programs or departments. This course is not required by any other program.

4. Proposed term for implementation:

Fall 2007

5. Dates of prior committee approvals:

Department of Engineering _January 23, 2007___

OSCE Curriculum Committee _February 1, 2007____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: 1/18/07

Ogden College of Science and Engineering
Department of Engineering
Proposal to Delete Multiple Courses
(Consent Item)

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 55848

1. Identification of courses:

Course prefix	Course Title	Credit Hours
EET 111	Electricity	3.0
EET 113	Lab Electricity I	1.0
EET 121	Electricity II	3.0
EET 123	Lab Electricity II	1.0
EET 261	Electronic Circuits I	3.0
EET 263	Lab Electronic Circuits I	1.0
EET 271	Electronic Circuits II	3.0
EET 273	Lab Electronic Circuits II	1.0
EET 281	Digital Circuits	3.0
EET 283	Lab Digital Circuits	1.0
EET 301	Circuit Design	3.0
EET 303	Circuit Design Lab	1.0
EET 317	Electricity & Machinery	3.0
EET 351	Digital Systems I	3.0
EET 353	Digital Systems Lab I	1.0
EET 369	Co-op in EET	1.0 - 4.0
EET 371	Communication Systems	3.0
EET 373	Lab Communication Systems	1.0
EET 377	Adv Communication System	3.0
EET 379	Adv Communication System Lab	1.0
EET 401	AC/DC Machines	3.0
EET 403	Lab AC/DC Machines	1.0
EET 405	Elec Power Transmission	3.0
EET 417	Elect & Instrumentation	3.0
EET 419	Lab Electron & Instrumentations	3.0
EET 427	Programmable Logic Controllers	3.0
EET 428	Programmable Controllers Lab	1.0
EET 459	Control System Theory	3.0
EET 460	Lab Control System	1.0
EET 481	Advanced Electronics	3.0
EET 483	Advanced Electronics Lab	1.0
EET 490	Senior Seminar in EET	1.0
EET 491	Digital Systems II	3.0
EET 492	Digital Systems II Lab	1.0
EET 493	EET Senior Project	3.0

2. Rationale for the course deletions:

The Electrical Engineering Technology program is no longer in existence. All of the students with signed degree programs in EET have either graduated or five years have passed since the degree program was filed. These courses will not be offered again.

3. Effect of course deletions on programs or other departments, if known:

There will be no effect on other programs or departments. These courses are not required by any other program.

4. Proposed term for implementation:

Fall 2007

5. Dates of prior committee approvals:

Department of Engineering	January 23, 2007
OSCE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Forms

Proposal Date: January 22, 2007

Ogden College of Science and Engineering
Department of Mathematics
Proposal to Delete a Course
(Consent Item)

Contact Person: Linda Pulsinelli linda.pulsinelli@wku.edu 745-6232

1. Identification of course:

1.1 Current course prefix (subject area) and number: MATH 096
1.2 Course title: Intermediate Algebra
1.3 Credit hours: 4

2. Rationale for the course deletion: The University has not awarded baccalaureate credit for Math 096 (Intermediate Algebra) for many years. After the 2007 May Term, Intermediate Algebra will be offered only by the Community College as DMA 096C, a course that is already in existence. Math 096 will no longer be listed among the offerings of the WKU Mathematics Department.

3. Effect of course deletion on programs or other departments, if known:
According to an agreement between the two mathematics departments, the Community College will continue to offer multiple sections of Intermediate Algebra on the main campus. Thus the impact on WKU students should be minimal.

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Mathematics Department:	January 26, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date:1/22/07

Ogden College of Science & Engineering
Department of Engineering
Proposal to Delete a Program
(Consent Item)

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 55848

1. Identification of program:

1.1 Program reference number: 538
1.2 Program title: Electrical Engineering Technology
1.3 Credit hours: 59

2. Rationale for the program deletion:
This is a program from the old Department of Engineering Technology. No new students have been admitted to this program since 2001, and all outstanding degree programs have expired.

3. Effect on current students or other departments, if known:
No current students are enrolled in this program, and no major or service courses have been offered since 2003. In addition, all students on active military have completed the program.

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Engineering Department/Division: __January 23, 2007__

OSCE Curriculum Committee __February 1, 2007___

University Curriculum Committee _____

University Senate _____

Attachment: Program Inventory Form

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Create a New Course
(Action Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: CM 250

1.2 Course title: Contract Documents

1.3 Abbreviated course title: Contract Documents

1.4 Credit hours and contact hours: 3 credits, 3 contact hours

1.5 Type of course: Lecture

1.6 Prerequisites/corequisites: None

1.7 **Course catalog listing:** Introduction to construction documents including drawings, specifications, contracts, requests for information, change orders, bid packages, addenda, and transmittals. In addition, techniques for reading engineering and shop drawings will be introduced.

2. Rationale:

2.1 Reason for developing the proposed course: This course is needed to cover content area required for accreditation by the American Council for Construction Education. This course will be an introductory course to construction management documents and plan reading skills.

2.2 Projected enrollment in the proposed course: 20 students based on 80 Construction Management majors. This course is also open to other majors.

2.3 Relationship of the proposed course to courses now offered by the department: This will be a new course for the department containing construction management specific topics unrelated to other major's courses offered in the department.

2.4 Relationship of the proposed course to courses offered in other departments: CE 303 is an introductory course covering multiple general construction management topics including brief coverage of the topics that will be concentrated on in this course. This course will be going into detail instruction of all documents related to

construction management projects as well as more coverage and practice at reading all types of plans.

2.5 Relationship of the proposed course to courses offered in other institutions: Other related institutions in the Associated Schools of Construction who also are accredited by the American Council for Construction Education offer this material. Most of the programs offer it in a similar course, although some programs break up the material in to multiple courses according to their needs. Similar courses are:
Ferris State University: CONM 112 Plans & Specifications
Clemson University: CSM 204 Contract Documents
Eastern Michigan University: CNST 302 Contract Documents & Regulations
Illinois State University: TEC 123 Construction Documents & Quantity Takeoff
Michigan State University: CMP 423 Construction Project Management
Northern Kentucky University- CMGT 303 Construction Specifications & Estimating
Southern Illinois University: CNST 341 Plans & Specifications

3. Discussion of proposed course:

3.1 Course objectives: Students will be able to identify construction project documents and their applications. Students will be able to identify and relate items in engineering documents and identify items of interest in shop drawings.

3.2 Content outline: Construction project definitions and phases, construction parties, delivery systems and contract forms, conditions of the contract, project manuals, field reports, field directives, record keeping, engineering and shop drawings reading instruction.

3.3 Student expectations and requirements: Class assignments, exams, and attendance.

3.4 Tentative texts and course materials: Poage, W. (2000). The Building Professional's Guide to Contract Documents, 3rd ed. R. S. Means Co., Inc. ISBN# 0-87629-577-4

4. Resources:

4.1 Library resources: WKU library resources are adequate for the course proposed. See attached list.

4.2 Computer resources: WKU and AMS Dept. computer resources are adequate for the propose course.

5. Budget implications:

5.1 Proposed method of staffing: Current faculty is qualified and available to teach the 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 2007

7. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept_____1/23/2007_____

Ogden College Curriculum Committee _____2/1/2007_____

University Curriculum Committee _____

University Senate _____

Attachment: Bibliography, Lib

COURSE INVENTORY FORM

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Create a New Course
(Action Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: CM 400

1.2 Course title: Construction Administration

1.3 Abbreviated course title: Construction Administration

1.4 Credit hours and contact hours: 3 credits, 3 contact hours

1.5 Type of course: Lecture

1.6 Prerequisites: CE 303

1.7 **Course catalog listing:** Basic principles of construction project administration including finances, legal requirements including permits, cost control, safety and quality management, office organization, site planning, document control, project tracking and risk management.

2. Rationale:

2.1 Reason for developing the proposed course: This course is needed to cover content area required for accreditation by the American Council for Construction Education. This course was previously taught by the Engineering Department as CE 416 due to AMS faculty shortages. Since the appointment of a new Architectural & Manufacturing Sciences Assistant Professor with the appropriate background to teach this class, the AMS department is now going to teach the course. The Engineering Department is planning to delete CE 416 from their roster.

2.2 Projected enrollment in the proposed course: 20 students based on 80 Construction Management majors. This course is also open to other majors as long as they have taken the appropriate prerequisites.

2.3 Relationship of the proposed course to courses now offered by the department: This will be a new course for the department as a cap stone type course relating all previous courses of the Construction Management program. This course will not cover estimating and scheduling techniques (CM 362 & CM 363) but

will show how they, among the other program related courses, are components of construction administration processes.

2.4 Relationship of the proposed course to courses offered in other departments: This course is replacing CE 416 so that it may now be taught in the appropriate department by Construction Management program faculty. CE303, required in the Construction Management program does introduce topics of construction administration, but does not go into detail that this course will. Students in other majors may still take this course.

2.5 Relationship of the proposed course to courses offered in other institutions: Other related institutions in the Associated Schools of Construction, who also are accredited by the American Council for Construction Education, offer this material in the senior year. Most of the programs offer it in a similar class, although some programs break up the material in to multiple classes according to their needs. Similar cap stone type courses are:

Ferris State University: CONM 499 Construction Project Management
University of Wisconsin: AEC 472 Management of Construction
Clemson University: CSM 453 Construction Project Management
Eastern Kentucky University: CON 425 Project Organization & Supervision
Eastern Michigan University: CNST 450 Fundamentals of Construction Project Management
Illinois State University: TEC 394 Construction Management & Administration
Indiana State University: MCT 450 Construction Management
Michigan State University: CMP 423 Construction Project Management
Purdue University- BCM 450 Construction Documentation & Administration
Southern Illinois University: CNST 452 Construction Management

3. Discussion of proposed course:

3.1 Course objectives: Students will be able to identify and evaluate issues surrounding construction projects administration including documents and digital data collection and storage options. Students will be able to identify safety planning and quality program issues and consider risk management options.

3.2 Content outline: Delivery systems, rights and responsibilities, financial considerations, project documentation & control, electronic data systems, law & labor relations, safety planning, quality planning, risk assessment and control, pre & post construction issues, value engineering, change processes, claims and disputes.

3.3 Student expectations and requirements: Class assignments, article reviews, exams, term paper, presentation and attendance.

3.4 Tentative texts and course materials: Fisk. E., & Reynolds, W. (2006). *Construction project administration*, 8th ed. Upper Saddle River, NJ: Pearson Education Inc.

4. Resources:

4.1 Library resources: WKU library resources are adequate for the course proposed. See attached list.

4.2 Computer resources: WKU and AMS Dept. computer resources are adequate for the propose course.

5. Budget implications:

5.1 Proposed method of staffing: Current faculty is qualified and available to teach the course.

5.2 Special equipment needed: None

5.3 Expendable materials needed: None

5.4 Laboratory materials needed: None

6. Proposed term for implementation: Spring 2008

7. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept_____1/23/2007____

Ogden College Curriculum Committee _____2/1/2007_____

University Curriculum Committee _____

University Senate _____

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: January 9, 2007

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

Contact Person: Nancy Rice Email: nancy.rice@wku.edu Phone: 745-5995

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 150
1.2 Course title: Investigative Biotechnology Core I
1.3 Abbreviated course title: Biotechnology Core I
1.4 Credit hours and contact hours: 5.0
1.5 Type of course: C (Lecture / Lab)
1.6 Prerequisites/corequisites: None
1.7 Course catalog listing:

Student-directed learning emphasizing structure and function of molecules, cells and tissues, basic research skills, basic computing in biology, and history of biology. Lab fee required.

2. Rationale:

2.1 Reason for developing the proposed course:

This course is being developed as part of the larger B.S. in Recombinant Genetics (Investigative Biotechnology) program revision – a revision designed to modernize the current curriculum into a highly research intensive major thus allowing students to learn biology through the pedagogical mechanism of investigative, discovery-based learning. This course represents the first in a two part series that will provide the foundational content and skill sets required for success in this highly research-driven major. This course will introduce student-directed, problem-based learning at the introductory level and will be taught modularly to provide maximum flexibility for all students and instructors.

2.2 **Projected enrollment in the proposed course:** 10- 20 students based upon current enrollment in the RGT major although significant growth is anticipated due to the modernization of the proposed curriculum. It is anticipated that enrollment growth will also occur as students from other areas enroll to gain biotechnology skill sets that can be applied to their particular discipline, *e.g.* agriculture, psychology, etc.

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

There is some *content* overlap between the BIOL 150 course and the introductory BIOL 120-121 course; however, there is very little overlap in the pedagogical *mechanism* by which that content is presented. BIOL 150

will be team-taught as independent modules, will incorporate specific skill sets through applied-learning of content specifically designed for student success in biological *research*, and will expand the content into areas of data handling and history.

Students who decide to change from a biology major to an IB major and have had BIOL 120/121 will have the following modules waived:

- Structure and function of molecules
- Cells and tissues

Students who decide to change from an IB major to a biology major may have the requirement of BIOL 120/121 waived only if they have passed both BIOL 150 and BIOL 151.

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

This course will be open to students of all departments and will likely be taken by those wishing to gain a basic knowledge of biotechnology in order to apply it to their specific research area or discipline of study. No other department offers any courses at the 100-level that overlap with the content of the proposed course. Biochemistry [CHEM 446] does discuss structure and function of biological molecules at a much advanced level.

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

No other institutions offer anything similar to the proposed course at the *introductory* level. Most universities, and all of our benchmark institutions, offer introductory biology as a single course, or series of two courses, that are taught as traditional content-based courses and cover basic cellular and molecular biology followed by organismal and population biology or some variation on this theme. None of these traditional courses appear to be taught as core concept units, focus on research skill sets, or formally introduce history at the introductory level to students. There are some universities that offer courses in Biotechnology/ Molecular Biology Techniques (Florida Atlantic University [BSC 4403L]; Montclair State university [BIOL 435]; Northern Arizona University [BIO 349L]) or certifications in Biotechnology (Ball State University, California State University, Fresno); however, these are restricted to upper-level students. No other Kentucky college or university teaches anything similar to the proposed course.

3. Discussion of proposed course:

3.1 Course objectives:

This course is the first course in a two-semester series that will provide students in the IB major the foundational skill sets needed to successfully complete the highly research-driven major; the course will be team-taught as five, 3-week modules and will introduce inquiry-based, student-directed learning at the introductory level to teach the curriculum (see 3.2). Each module will be independently assessed by the module instructor with the

average of all module assessments culminating in the final grade for the course.

3.2 Content outline:

Structure and function of molecules

- Basic biological chemistry - atoms, bonding and molecular forces
- Proteins
- Carbohydrates
- Lipids
- Nucleic Acids

Cells and tissues

- Membranes and membrane structure
- Cell structure with comparisons (prokaryotes, plant and animal)
- Cytoskeleton
- Intracellular compartmentalization and trafficking
- Cell cycle/cell death/cell division
- Cell adhesion
- Development / embryology

Basic Research Skills I

- Lab safety and etiquette
- Pipetting
- Solution preparation
- Calculation and preparation of dilutions
- Proper technique for cleaning and maintaining lab glassware
- Proper use and function of common lab equipment
- Sterile technique
- Data recording
- Basic principles of scientific writing

Basic computing in Biology

- Basic intro to computers (Word, PPT, Excel, web etc. – P/F exam that can be used to test out of this part of module)
- Basic logic, decision trees
- Intro to databases and searching
- Bioinformatics resources like NCBI
- Bioinformatics tools
- Basic statistics
- Regression and best fit modeling
- Graphical representation of data
- Basics in programming

History of Biology

- Theology and Natural Theology (-1900)
- Medicine and Natural Philosophy (1800-)
- Professionalization of Science (1850-1925
- Democratization of Science (1915-)
- Industrialization of Science (1940-)
- Traditions of experimental and theoretical biology research.

3.3 Student expectations and requirements:

Students will be expected to actively participate in all course modules including discussion and reading assignments; satisfactory mastery of course material will be assessed through both written and practical exams.

3.4 Tentative texts and course materials:

Alberts, B. et al. 2004. *Essential Cell Biology*. Garland Science. 740 pp
Magner, Lois. 2002. *A History of the Life Sciences.* Marcel Dekker. 512 pp.
Lesk, Arthur (2002) An Introduction to Bioinformatics. Oxford University Press. 310pp

4. Resources:

4.1 Library resources:

Adequate; see Library Resources Form and Bibliography

4.2 Computer resources:

The department currently has:

- 13 laptops with wireless internet capabilities and basic statistical and graphing software that are located on a mobile cart to support various coursework
- Bioinformatics server with over 200 analysis programs
- 50 copy license to use VectorNTI analysis software

5. Budget implications:

5.1 Proposed method of staffing:

Regular faculty

5.2 Special equipment needed:

None

5.3 Expendable materials needed:

Negligible

5.4 Laboratory materials needed:

The biology department is currently equipped for any laboratory exercises that will be incorporated into the course. Some consumable supplies and reagents will be needed and will be covered by a lab fee.

6. Proposed term for implementation:

Fall 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007__
OCSE Curriculum Committee	February 1, 2007_____
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: January 9, 2007

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

Contact Person: Nancy Rice Email: nancy.rice@wku.edu Phone: 745-5995

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 151
1.2 Course title: Investigative Biotechnology Core II
1.3 Abbreviated course title: Biotechnology Core II
1.4 Credit hours and contact hours: 5.0
1.5 Type of course: C (Lecture / Lab)
1.6 Prerequisites/corequisites: BIOL 150
1.7 Course catalog listing:

Student-directed learning emphasizing: origin of life and evolutionary process, genomics and inheritance, bioenergetics and carbon flow, basic research skills, and bioethics. Lab fee required.

2. Rationale:

2.1 Reason for developing the proposed course:

This course is being developed as part of the larger B.S. in Recombinant Genetics (Investigative Biotechnology) program revision – a revision designed to modernize the current curriculum into a highly research intensive major thus allowing students to learn biology through the pedagogical mechanism of investigative, discovery-based learning. This course represents the second in a two-part series that will provide the foundational content and skill sets required for success this highly research-driven major. This course will introduce student-directed, problem-based learning at the introductory level and will be taught modularly to provide maximum flexibility for all students and instructors.

2.2 **Projected enrollment in the proposed course:** 10- 20 students based upon current enrollment in the RGT major, although significant growth is anticipated due to the modernization of the proposed curriculum. It is anticipated that enrollment growth will also occur as students from other areas enroll to gain biotechnology skills sets that can be applied to their particular discipline, *e.g.* agriculture, psychology, etc.

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

There is some *content* overlap between the BIOL 151 course and the introductory BIOL 120-121 and BIOL 122-123 courses; however, there is very little overlap in the pedagogical *mechanism* by which that content is presented. BIOL 151 will be team-taught as independent modules, will

incorporate specific skill sets through applied- learning of content specifically designed for student success in biological *research*, and will expand the content into areas of scientific policy, ethics, and data handling.

Students who decide to change from a biology major to an IB major and have had BIOL 120/121 and/or 122/123 will have the following modules waived:

- Bioenergetics and carbon flow (120)
- Origin of life and evolutionary process (122)

Students who decide to change from an IB major to a biology major may have the requirement of BIOL 120/121 waived only if they have passed both BIOL 150 and BIOL 151.

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

This course will be open to students of all departments and will likely be taken by those wishing to gain a basic knowledge of biotechnology in order to apply it to their specific research area or discipline of study. No other department offers any courses at the 100-level that overlap with the content of the proposed course. There is a course in Biomedical Ethics that is taught through the Philosophy and Religious Studies department [PHIL 322].

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

No other institutions offer anything similar to the proposed course at the *introductory* level. Most universities, and all of our benchmark institutions, offer introductory biology as a single course or series of two courses that are taught as traditional content based courses and cover basic cellular and molecular biology followed by organismal and population biology or some variation on this theme. None of these traditional courses appear to be taught as core concept units, focus on research skill sets, or introduce biological ethics at the introductory level to students. There are some universities that offer courses in Biotechnology/ Molecular Biology Techniques (Florida Atlantic University [BSC 4403L]; Montclair State university [BIOL 435]; Northern Arizona University [BIO 349L]) or certifications in Biotechnology (Ball State University, California State University, Fresno); however, these are restricted to upper-level students. No other Kentucky college or university teaches anything similar to the proposed course.

3. Discussion of proposed course:

3.1 Course objectives:

This course is the second course in a two-semester series that will provide students in the IB major the foundational skill sets needed to successfully complete the highly research-driven major; the course will be team-taught as five, 3-week modules and will introduce inquiry-based, student-directed learning at the introductory level to teach the outline curriculum (3.2). Each module will be independently assessed by the module instructor with the

average of all module assessments culminating the final grade for the course.

3.2 Content outline:

Origin of life and evolutionary process

History of Life: key events, fossil record, genetic relatedness, biochemical relatedness, morphological relatedness
Microevolution: adaptation, genetic impacts, genetic variation, development,
Selection: natural selection, sexual selection, genetic drift, mutation, gene flow
Macroevolution: speciation, phylogenies, systematics, comparative methods
Integrating Micro- and Macroevolution: coevolution, human evolution, evolution vs. religion debate, experimentation

Genomics and Heredity

The discovery of DNA as the hereditary material, and why this was a surprise.
DNA structure and properties
RNAs
Gene structure
Transcription, splicing, alternative splicing
Regulation of transcription
Translation
Genetic Basis of Phenotype (central dogma of biology)
Chromatin structure and epistatic basis of heredity
Southern, Northern, and Western Blots
Genomics, Genetics in parallel: SNP Chips, Gene Chips, and Protein Chips

Basic Research Skills II – [Current Biotechnology Certification program]

E. coli biology and culture
Plasmid biology
Bacterial transformation
DNA isolation and quantification
Lab Math
Restriction analysis of DNA
Agarose gel electrophoresis
Polymerase Chain Reaction
Sequencing DNA
Protein extraction
SDS-PAGE electrophoresis

Bioenergetics and carbon flow

Energy and the Cell: Entropy,Free Energy (Gibbs), Oxidation/Reduction
Biological Energy Stores:

Energized membrane, Respiration, Transport, Motility,
ATP Formation:,Substrate-level, Respiration
Modes of Energy Metabolism:
Phototrophy: Oxygenic, Anoxygenic
Chemotrophy; Organotropy,Lithotrophy

Bioethics
Note: All topics will be taught as case-studies.
When does human life begin?
Scientific integrity in research
Cloning and stem cell research
Laws and regulations for protection of human subjects
Animal use in research
DNA ownership

3.3 Student expectations and requirements:

Students will be expected to actively participate in all course modules including discussion and reading assignments; satisfactory mastery of course material will be assessed through both written and practical exams.

3.4 Tentative texts and course materials:

Campbell and Reece. 2005. *Biology.* Benjamin Cummings. 1231 pp
Gilbert, Scott F., Tyler, Anne L. and Zckin, Emily J. (2005) *Bioethics and the New Embryology*. Sinauer. 300 pp
The National Center for Case Study Teaching in Science Case Collection; University of Buffalo;
http://ublib.buffalo.edu/libraries/projects/cases/ubcase.htm
WKU Biotechnology Center Certification Website :
http://biotech.wku.edu/cgi-bin/lecture.cgi

4. Resources:

4.1 Library resources:

Adequate; see Library Resources Form and Bibliography

4.2 Computer resources:

The department currently has:

- 13 laptops with wireless internet capabilities and basic statistical and graphing software that are located on a mobile cart to support various coursework; it is anticipated that this number will increase in the future.
- 50 copy license to use VectorNTI analysis software

5. Budget implications:

5.1 Proposed method of staffing:

Regular faculty

5.2 Special equipment needed:

None

5.3 Expendable materials needed:

Negligible

5.4 Laboratory materials needed:

The biology department is currently equipped for any laboratory exercises that will be incorporated into the course. Some consumable supplies and reagents will be needed and will be covered by a lab fee.

6. Proposed term for implementation:

Fall 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007_____
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, **Course Inventory Form**

Proposal Date: January 9, 2007

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

Contact Person: Nancy Rice Email: nancy.rice@wku.edu Phone: 745-5995

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 153
1.2 Course title: Investigative Biotechnology Module
1.3 Abbreviated course title: Biotechnology Module
1.4 Credit hours and contact hours: 1.0
1.5 Type of course: C (Lecture / Lab)
1.6 Prerequisites: Consent of instructor
1.7 Course catalog listing:

Biotechnology core modules as taught in BIOL 150 and BIOL 151. Lab fee required. May be repeated for a total of 10 credits.

2. Rationale:

2.1 Reason for developing the proposed course:

This course is being developed as part of the larger B.S. in Recombinant Genetics (Investigative Biotechnology) program revision – a revision designed to modernize the current curriculum into a highly research intensive major thus allowing students to learn biology through the pedagogical mechanism of investigative, discovery-based learning. Specifically, as a result of the current "genomics era", we are seeing recombinant DNA technology being applied in numerous fields due to our ability to manipulate and sequence DNA. Many traditional biology students have as their primary interest ecology, zoology, or biodiversity and yet need a foundation in the application of biotechnology to these specialties. This course is being developed to allow those students *not* majoring in IB an opportunity to enroll in single modular components of BIOL 150 and BIOL 151without being required to register for the entire semester course and will meet the need of those students who are on the "cusp" between traditional fields of biology and molecular biology.

2.2 **Projected enrollment in the proposed course:** 10- 20 students per semester based upon the number of biology majors currently within the department wishing to augment their studies with some of the modular content. It is anticipated that enrollment from students from other areas *e.g.* agriculture, psychology, computer science etc. will also occur by this mechanism.

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

This course enhances the current biology curriculum in organismal, population, and environmental biology by providing an opportunity for

students to take an intensive one credit-hour course in order to acquire particular skills or content in biotechnology to supplement their specific studies. No other course in the department allows students to enroll in the particular components of the course that represent a defined skill set needed by the student.

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

This course will be open to students of all departments and will likely be taken by those wishing to gain a basic knowledge of biotechnology in order to apply it to their specific research area or discipline of study. For example, there is a growing field merging psychology with bioinformatics by analyzing polymorphic changes in behavior genes among individuals. The bioinformatics module would be an appropriate course for a psychology major to take to introduce them to this type of research. Likewise a student majoring in computer science would benefit from this module as well. Again, there are no other courses at WKU that offer this content.

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

No other institutions offer anything similar to the proposed course at the *introductory* level. Most universities, and all of our benchmark institutions, offer introductory biology as a single course or series of two courses that are taught as traditional content-based courses and cover basic cellular and molecular biology followed by organismal and population biology or some variation on this theme. None of these traditional courses appear to be taught as core concept units, focus on research skill sets, or introduce biological ethics and history at the introductory level to students. There are some universities that offer courses in Biotechnology/ Molecular Biology Techniques (Florida Atlantic University [BSC 4403L]; Montclair State university [BIOL 435]; Northern Arizona University [BIO 349L]) or certifications in Biotechnology (Ball State University, California State University, Fresno;) however, these are restricted to upper-level students. No other Kentucky college or university teaches anything similar to the proposed course. Additionally, this course particularly novel in its scheduling as modules, in that it allows any student in any department across campus to enroll in specific modular components of BIOL 150 and BIOL 151, attend the class during the part of the semester in which that particular concept is being taught, and not be required to register for the entire semester course. This is particularly advantageous for those students wishing to apply biotechnology to other disciplines. No Kentucky or Benchmark university offers such integration and flexibility in coursework.

3. Discussion of proposed course:

3.1 Course objectives:

This course represents the opportunity for non-IB students, under the guidance of their advisor and with the permission of the instructor, to enroll in IB core modules in order to learn skill sets needed to augment their course of study; a module course will be 3-weeks in duration and will be taught by modern, constructivist pedagogies.

3.2 Content outline:

Any module that is taught in the BIOL 150 and BIOL151 courses may be taken individually as BIOL 153.

3.3 Student expectations and requirements:

Students will be expected to actively participate in all module assignments and discussions; satisfactory mastery of course material will be assessed through either written and/or practical exams as determined by the instructor.

3.4 Tentative texts and course materials:

Alberts, B. et al. 2004. *Essential Cell Biology.* Garland Science. 740 pp
Magner, Lois. 2002. *A History of the Life Sciences.* Marcel Dekker. 512 pp.
Lesk, Arthur (2002) An Introduction to Bioinformatics. Oxford University Press. 310pp
Campbell and Reece. 2005. *Biology.* Benjamin Cummings. 1231 pp
Gilbert, Scott F., Tyler, Anne L. and Zckin, Emily J. (2005) *Bioethics and the New Embryology*. Sinauer. 300 pp
The National Center for Case Study Teaching in Science Case Collection; University of Buffalo;
http://ublib.buffalo.edu/libraries/projects/cases/ubcase.htm
WKU Biotechnology Center Certification Website :
http://biotech.wku.edu/cgi-bin/lecture.cgi

4. Resources:

4.1 Library resources:

Adequate; see Library Resources Form and Bibliography

4.2 Computer resources:

The department currently has:

- 13 laptops with wireless internet capabilities and basic statistical and graphing software that are located on a mobile cart to support various coursework; it is anticipated that this number will increase in the future.
- 50 copy license to use VectorNTI analysis software

5. Budget implications:

5.1 Proposed method of staffing:

Regular faculty

5.2 Special equipment needed:

None

5.3 Expendable materials needed:

Negligible

5.4 Laboratory materials needed:

The biology department is currently equipped for any laboratory exercises that will be incorporated into the course. Students who enroll in modules that require consumable reagents will be assessed a modest laboratory fee.

6. Proposed term for implementation:
Fall 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	___February 1, 2007__
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, **Course Inventory Form**

Proposal Date: January 10, 2007

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

Contact Person: Nancy Rice; nancy.rice@wku.edu; 745-5995

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: Biol 199
1.2 Course title: Introduction to the Research Experience
1.3 Abbreviated course title: Intro to Research
1.4 Credit hours and contact hours: 1
1.5 Type of course: R
1.6 Prerequisites/corequisites: Restricted to majors in 764 – Investigative Biotechnology
1.7 Course catalog listing:

Introduces students to research through laboratory rotations. Each student will participate in 2 different rotations with 2 different faculty members. Pass/Fail grading.

2. Rationale:

2.1 Reason for developing the proposed course:

This course is being developed as part of the larger Recombinant Genetics (Investigative Biotechnology) program revision – a revision designed to modernize the current curriculum into a highly research intensive major thus allowing students to learn biology through the pedagogical mechanism of investigative, discovery-based learning. This course will give entering IB students an opportunity to immerse themselves into the research experience/culture directly following matriculation into the program. Students in this course will have the additional advantage of developing relationships with research faculty early in their scientific career and thus eliminating some of the apprehension involved in talking with "professors". Furthermore, early exposure to research programs allows students to development long-term research projects in a single lab.

2.2 **Projected enrollment in the proposed course**: 5-10 per year based upon current enrollment and projected growth due to the proposed changes to the current curriculum.

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

There are no other introductory research experiences offered as a formal course. The Biology Department does offer upper-level independent research credit (BIOL 399) and facilitates an 8-week "Biotechnology

Certification" program for underclassmen, although this is not formally part of the department's curriculum.

2.4 **Relationship of the proposed course to courses offered in other departments:** No other department in Ogden offers a research introduction at the 100-level. The Chemistry and Geography and Geology Departments offers a 200-level Introduction to Research Methodology (CHEM 295; GEOG 295) for the Ogden Research Scholars; however these courses are seminar courses and do not use a laboratory rotation scheme.

2.5 **Relationship of the proposed course to courses offered in other institutions:** No other institutions (Benchmarks or otherwise) offer an Introduction to Research in Biotechnology at the 100-level.

3. Discussion of proposed course:

3.1 Course objectives:

This course will provide an opportunity for students to participate in two, 8-week laboratory rotations and is modeled after traditional U.S. graduate programs in the biological sciences where entering students rotate through different labs to familiarize themselves with various research projects occurring within particular laboratories in the department. One rotation will be chosen by the student and the other will be chosen through a lottery mechanism of participating faculty.

Content outline:

There is no set content, although it is expected that students will read current and background literature related to the research projects of the chosen laboratory as directed by the faculty member.

3.2 Student expectations and requirements:

Students will be expected to participate in laboratory meetings, assist graduate or upper-level undergraduate students in the lab, and contribute to the research agenda of the laboratory at the discretion of the faculty member. Students will be expected to spend a *minimum* of 2 hours/week for 8 weeks in each rotation laboratory.

3.3 Tentative texts and course materials:

Not applicable; will vary from lab to lab.

4. Resources:

4.1 Library resources:

Adequate; see Library Resources Form and Bibliography

4.2 Computer resources:

None

5. Budget implications:

5.1 Proposed method of staffing:

Regular 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 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, **Course Inventory Form**

Proposal Date: 9/11/2006

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

Contact Person: Michael Stokes e-mail: michael.stokes@wku.edu Phone: 5-6009

1. Identification of proposed course

1.1 Prefix and number: BIOL 232
1.2 Title: Principles of Wildlife Ecology and Management
1.3 Abbreviated title: Princ Wildlife Ecol and Mgmt
1.4 Credit hours and contact hours: 3.0
1.5 Type of course: L (Lecture)
1.6 Prerequisites: Biol 120 and Biol 121 and Biol 122 and Biol 123; or, permission of instructor in place of any or all prerequisites
1.7 Catalog course listing:

Examination of the principles of wildlife ecology and management, including population regulation, habitat management, wildlife diseases and conservation. Primarily for those interested in a career involving wildlife.

2. Rationale

2.1 Reason for developing the proposed course:

The Kentucky Department of Fish and Wildlife now requires applicants for their wildlife-related positions to meet course requirement for Certified Wildlife Biologist as defined by The Wildlife Society. Other state wildlife agencies also have this stipulation for applicants. Our current curriculum is deficient in the wildlife management credit hours available to our students. This course is proposed in direct response to this new requirement.

2.2 Projected enrollment in the proposed course:

We anticipate 25 students per year in this course based upon informal surveys of our students and the the number of students in our program who wish to enter a wildlife-related field.

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

There is little overlap between this course and others in the Department of Biology. However, the applied nature of this course will complement Biol 315 (Ecology) which is primarily a theoretical course, and Biol 459 (Mammalogy) which focuses on taxonomy and evolution of wildlife. It will also complement our Biol 485 course, a practical field biology experience taught as a study abroad course in South Africa and concentrating on both practical wildlife techniques and international issues in wildlife management.

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

There is no overlap between this course and those offered in other departments. Wildlife management positions generally require a degree in biology or in wildlife management, and such courses are always within those departments

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

This is a basic principles course in wildlife management and is a standard offering at most universities with a degree program in wildlife management or in biology with a wildlife emphasis. In Kentucky, EKU offers a similar course as Biol381, Principles of Wildlife Management, and Murray State offers Bio580, Principles of Wildlife Management. Because our Department of Biology has taken an approach that allows students to specialize early in their undergraduate careers, and because this course leads naturally into the courses mentioned in section 2.3, we prefer to offer it at the 200-level. Among our benchmarks, similar courses are offered at Central Missouri State University (BIOL 3721), Ball State (Zool483), and Indiana State (ECOL 458).

3. *Discussion of proposed course*

3.1 Course objectives:

To familiarize students with the principles of wildlife ecology, management and conservation.

To provide the basic knowledge in wildife management needed by students interested in pursuing internships or employment in the area of wildlife conservation and management.

To provide a course required for Professional Wildlife Biologist certification by The Wildlife Society.

3.2 Content outline:

- History of wildlife management
- Why wildlife must be managed
- Wildlife in ecological context
- An introduction to population ecology
- Animal behavior and management
- Wildlife habitats and management
- Harvesting of wildlife
- Zoonoses
- Wildlife and society
- Wildlife conservation

3.3 Student expectations and requirements:

Students will attend lectures and display mastery of the material through exams and production of a term paper.

3.4 Tentative texts and course materials:

Bolen, E. and W. Robinson. 2003. Wildlife ecology and management. 5th ed. Prentice Hall, New Jersey, 634 pp.

Other readings as assigned.

4. *Resources*

4.1 Library resources:

See attached bibliography and library resource form.

4.2 Computer resources:

Open student computer labs are adequate.

5. ***Budget implications***

5.1 Proposed method of staffing:

Regular faculty

5.2 Special equipment needed:

None

5.3 Expendable materials needed:

None

5.4 Laboratory supplies needed:

None

6. ***Proposed term for implementation:*** *Fall, 2007*

Dates of prior committee approvals:

Biology Department	9/15/06
OCSE Curriculum Committee	2/9/07
University Curriculum Committee	
University Senate	

Attachments: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: January 18, 2007

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

Contact Person: Nancy Rice; nancy.rice@wku.edu; 745-5995

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 275
1.2 Course title: Colloquia
1.3 Abbreviated course title: Colloquia
1.4 Credit hours and contact hours: variable from 1 –3 hours each
1.5 Type of course: S
1.6 Prerequisites/corequisites: Consent of instructor
1.7 Course catalog listing:

Issues of contemporary, historical or intellectual significance in Biology, often with ethical implications will be weighed and debated. May not be used to satisfy the general education requirement in natural sciences. May be repeated with a maximum of 3 hours counting for the Biology or Investigative Biotechnology major.

2. Rationale:

2.1 Reason for developing the proposed course:

This course is being developed as part of the larger Recombinant Genetics (Integrative Biotechnology) program revision – a revision designed to modernize the current curriculum into a highly research intensive major thus allowing students to learn biology through the pedagogical mechanism of investigative, discovery-based learning. This course will specifically provide students with special topics of study that are not necessarily foundational courses to augment their overall required curriculum. Some potential examples include: Scientific Public Policy, Proteomics, Women in Science, Prenatal Immunology, Molecular Motors, and Molecular Forensics.

2.2 **Projected enrollment in the proposed course**: 10-20 per year based upon current enrollment and projected growth due to the proposed changes to the current curriculum. Additionally, it is anticipated that students from other departments in Ogden College and elsewhere will also enroll in this course as some will be cross-listed as a 200-level honors colloquia as well.

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

There are no other special topics courses taught at the 100 or 200-level in the department. The Biology Department does offer an upper-level special topics course (BIOL 475).

2.4 **Relationship of the proposed course to courses offered in other departments:** Most other departments in Ogden College offer a 400-level special topics course, *e.g*. chemistry, physics, agriculture, geography and geology; however, none offer a colloquia series at the lower-level that can be interdisciplinary and also complement our rapidly growing University Honor's program, a program of focus in improving academic quality at Western. The University Honor's program offers 200- and 300-level interdisciplinary colloquia.

2.5 Relationship of the proposed course to courses offered in other institutions:
Most of our benchmark institutions and several Kentucky institutions offer lower-level colloquia courses in biology, *e.g*. Ball State University [BIOL 299X, as well as a standard 400-level course in genomics and proteomics]; University of California-Fresno [Biol 189]; Missouri State University [BIO 197]; Eastern Michigan University [BIO 177/178/179]. Kentucky schools include Transylvania University [BIO 2424].

3. Discussion of proposed course:

3.1 Course objectives:
This course will allow students to explore selected biological issues of contemporary, historical or intellectual significance, often with ethical implications to be weighed and debated. The course will emphasize critical thinking, independent reading, and discussion.

3.2 **Content outline:**
Not applicable; will vary from course to course.

3.3 Student expectations and requirements:
Students will be expected to actively read and participate in all discussions regarding the topic under investigation. Student assessment will be through the culmination of a final analysis paper by the student.

3.4 Tentative texts and course materials:
Not applicable; will vary from course to course.

4. Resources:

4.1 Library resources:
See Library Resources Form and Bibliography sheet

4.2 Computer resources:
None

5. Budget implications:

5.1 Proposed method of staffing:
Regular 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 2007

7. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, **Course Inventory Form**

Proposal Date: 11/20/06

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

Contact Person: Claire Rinehart, claire.rinehart@wku.edu, 745-5997

1. Identification of proposed course:

1.1 Course prefix (subject area) and number: BIOL 312
1.2 Course title: Bioinformatics
1.3 Abbreviated course title: Bioinformatics
1.4 Credit hours and contact hours: 4
1.5 Type of course: C
1.6 Prerequisites: BIOL 150 or BIOL 120 or BIOL 113, and BIOL 283 or MATH 203 or MATH 329 or STAT 301
1.7 Course catalog listing:
Presentation of the theoretical underpinnings and the computational methods of nucleic acid and protein sequence analyses used in genomic work. An associated laboratory component will provide project-based application of these methods.

2. Rationale:

2.1 Reason for developing the proposed course:

The number of DNA sequences added to GenBank, a publicly-funded national repository, is growing exponentially, and new information bases in proteomics, gene expression, and metabolomics are expanding just as rapidly. As a result, the field of Bioinformatics has emerged in the last 12 years designed to mine answers to important biological and medical questions from these information bases. Therefore, the addition of a course to introduce the tools and methods of this growing field is needed to keep our curriculum current.

2.2 Projected enrollment in the proposed course:

20-30 /yr. It is anticipated that enrollment will be not only from biology and IB majors, but from students in other areas looking to gain biotechnology skill sets that can be applied to their particular discipline, *e.g.* agriculture, psychology, computer science, etc.

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

The bioinformatics course will support nearly all the fields of biology. As a result of the current "genomics era", we are seeing bioinformatics being applied in numerous fields due to our ability to manipulate and sequence DNA. Many traditional biology students have as their primary interest ecology, evolution, or biodiversity and yet need a foundation in the application of bioinformatics to these specialties in order to compare genomes from different species. This work will provide a better

understanding of how species have evolved and help us understand the function of human genes by examining their counterparts in simpler model organisms. This course will meet the need of those students who are on the "cusp" between traditional fields of biology and bioinformatics.

2.4 Relationship of the proposed course to courses offered in other departments: Bioinformatics tools rely on computer and mathematical algorithms that are taught in the Departments of Mathematics and Computer Science. However, the proposed course is not directly equivalent to any other course taught in these departments as it is an application of such algorithms in a biological context.

2.5 Relationship of the proposed course to courses offered in other institutions: A survey of our benchmark institutions revealed that many of them already offer bioinformatics courses Ball State [BIO 495], California State -Fresno [CSci 101], Eastern Michigan University [BIOL 401], Missouri State University [CSC 487], Stephen Austin University [CHE471/BTC548], Towson State [MBBB 401], University of Northern Iowa [CS 810:065/066] or programs [Univ. of Northern Iowa] at the undergraduate level. Since bioinformatics is a relatively new field, the expertise across the country is still typically found and taught at the graduate level. Providing a course in bioinformatics at the undergraduate level would therefore fulfill a current deficiency in the program while simultaneously providing an opportunity for our students to increase their competitiveness for positions in biotechnology. In Kentucky, the University of Louisville in combination with Eastern Kentucky University has a joint M.S. program; no state institution offers an undergraduate courses in bioinformatics.

3. Discussion of proposed course:

3.1 Course objectives:

- Help students access the sources of information and the information flow in biological systems.
- Introduce students to the wide range of information databases and give them hands-on experience in accessing, researching, and contributing to bioinformatic databases.
- Develop student competency in using bioinformatics tools.
- Develop student problem-solving skills in bioinformatics.

3.2 Content outline:

- Sources of biological information.
- Relationships between information resources help us understand the biological system.
- Pairwise sequence alignments.
- Introduction to probability and statistical analysis of sequence alignments.
- Multiple sequence alignment.
- Sequence database searching for similar sequences.
- Phylogenetic analysis.
- RNA structure predictions.
- Gene prediction and regulation.
- Protein structure, analysis and proteomics.

- Microarray analysis.
- Sequence Assembly and finishing methods.
- Bioinformatics programming using Perl and Perl modules.
- Computational approaches in comparative genomics.

3.3 Student expectations and requirements:

- In-class exams/quizzes will be given to evaluate student's grasp of terminology and ability to apply concepts.
- Projects that require the application of bioinformatics tools will be graded and feedback given to the students.
- The final exam will require the presentation of a poster representing the results of a semester-long project.

3.4 Tentative texts and course materials:

Mount, D.W. (2004) Bioinformatics:sequence and genome analysis, 2nd ed., Cold Spring Harbor Laboratory Press.
Pevsner, J. (2003) *Bioinformatics and Functional Genomics*, Wiley-Liss
Baxevanis A.D. and Ouellette B.F., Eds 2005 *Bioinformatics: A Practical Guide to the Analysis of Genes and Proteins*, 3rd ed., John Wiley & Sons, New York.

4. Resources:

4.1 Library resources:

Adequate. See Library Resource Form.

4.2 Computer resources:

- 13 laptops with wireless capabilities, on a mobile cart to support labs.
- Bioinformatics server with over 200 analysis programs
- 50 copy license to use VectorNTI analysis software.

5. Budget implications:

4.3 Proposed method of staffing: Regular Faculty
4.4 Special equipment needed: none
4.5 Expendable materials needed: none
4.6 Laboratory materials needed: none

6. Proposed term for implementation:

Fall 2007

7. Dates of prior committee approvals:

Biology Department	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 1/12/2007

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

Contact Person: Lowell Shank email: Lowell.shank@wku.edu Phone: 5-4986

1. Identification of proposed course:

1.1 Course prefix and number: CHEM 111
1.2 Course title: Introduction to Forensic Chemistry
1.3 Abbreviated course title: Intro to Forensic Chemistry
1.4 Credit hours and contact hours: 3
1.5 Type of course: C (Lecture/Lab)
1.6 Prerequisites/corequisites: None
1.7 Course catalog listing:

A combination of lecture and in-class laboratory activities designed to introduce the fundamentals of forensic chemistry including evidence collection and preservation, arson investigation, poisons and toxicity, determination of time of death, the chemistry of explosions, and DNA/blood analysis. In-class laboratory constitutes 20 percent of the class.

2. Rationale:

2.1 Reason for developing the proposed course:

Interest in the field of forensic science is growing as a result of the many forensic related programs on TV. Students need a scientific understanding of forensic principles along with a basic chemistry foundation to be able to separate fact from fiction. This course should make an effective Category D-I (DL) general education elective because it will give students the opportunity to improve their capacity for critical thinking and their understanding of the scientific method and its application to "real-world" problems.

2.2 Projected enrollment in the proposed course:

150 students in two sections, one of which will be a second biterm

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

The only course relating to forensic chemistry offered in the chemistry department is at the senior/graduate level.

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

There are no courses offered at Western that have significant content overlap with Introduction to Forensic Chemistry.

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

No similar courses are currently offered in the Commonwealth of Kentucky. However, Northern Kentucky University is in the process of developing a new course similar to this one. The textbook that will be used for CHEM 103 is a new textbook that has

been introduced by Freeman to anticipate a demand for such courses.

3. Discussion of proposed course:

3.4 Course objectives:

Introduction to Forensic Chemistry will explain chemical principles in a clear and accessible way, and draw on the many intriguing examples afforded by forensic science to illustrate chemical concepts.

3.5 Content outline:

- Introduction to general and forensic chemistry
- Evidence collection and preservation
- Atomic clues and the periodic table
- Chemical evidence/chemical reactions
- Concepts of energy
- Properties of solutions I: aqueous solutions
- Properties of solutions II: intermolecular forces
- Drug chemistry
- Chemistry of polymers
- Chemistry of addiction
- Arson investigation
- Chemistry of explosions
- Determining time of death
- Bombs and nuclear terrorism
- Poisons and toxicity
- Blood/DNA analysis

3.6 Student expectations and requirements:

A series of laboratory exercises and short quizzes will be administered. Grades on these assignments and a final exam will be used to determine the grade in the course.

3.7 Tentative texts and course materials:

Johll, M.E., 2007: Investigating Chemistry; A Forensic Science Perspective, W.H.Freeman and Company, 458 pp

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:
Solvents and necessary chemicals
5.4 Laboratory materials needed:
Test tubes, beakers, dispensing bottles, micro pipets, and well plates

6. Proposed term for implementation: Fall 2007

7. Dates of prior committee approvals:

Chemistry Department:	____1/12/2007_____
OCSE College Curriculum Committee	____2/1/2007_____
General Education Committee	_____
University Curriculum Committee	_____
University Senate	_____

Attachment: Bibliography, Library Resources Form, **Course Inventory Form**

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Make Multiple Revisions to a Course
(Action Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of course:

1.1 Current course prefix (subject area) and number: CM 356
1.2 Course title: Basic Structural Design
1.3 Credit hours: 3

2. Revise course title:

2.1 Current course title: Basic Structural Design
2.2 Proposed course title: Applied Structural Design
2.3 Proposed abbreviated title: Applied Structural Design
2.4 Rationale for revision of course title: Proposed title better reflects course content.

3. Revise course number:

3.1 Current course number: CM 356
3.2 Proposed course number: CM 447
3.3 Rationale for revision of course number: Proposed course number clearly indicates it is the third course in a sequence of design based courses starting with CM 227, CM 337 and lastly CM 447. Additionally the change better reflects the year in which the course is taken by students.

4. Revise course catalog listing:

4.1 **Current course catalog listing:** Basic design of structural components using the primary building materials of steel, concrete, wood, and masonry. Structural components will include columns, beams, tension members, connections, foundations, and walls.

4.2 **Proposed course catalog listing:** Basic design of permanent and temporary structural components using the primary building materials.

4.3 Rationale for revision of course catalog listing: Proposed catalog description reflects current industry standards as recommended by our industrial advisory board.

5. Proposed term for implementation: Fall 2007

6. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept_____1/23/2007____

Ogden College Curriculum Committee _____2/1/2007_____

University Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: January 23, 2007

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

Contact Person: Claire Rinehart, Claire.Rinehart@wku.edu, 745-5997

1. Identification of course:

1.1 Current course prefix (subject area) and number: BIOL 407
1.2 Course title: Virology
1.3 Credit hours: 3

2. Revise course prerequisites:

2.1 Current prerequisites:
BIOL 220-221 AND a microbiology course

2.2 Proposed prerequisites:
BIOL 150 or BIOL 320

2.3 Rationale for revision of course prerequisites:
Because BIOL 220 was changed to BIOL 320 this prerequisite must be revised. Also, BIOL 150 gives an equivalent introduction to this subject for Ref. #764 majors who are not required to take BIOL 320. Although experience in microbiology can be helpful for this course, it is not an absolute prerequisite.

2.4 Effect on completion of major/minor sequence:
None

3. Revise course catalog listing:

3.1 Current course catalog listing:
Study of bacterial, animal and plant viruses. Emphasis on the molecular aspects of replication, expression, regulation and pathogenesis.

3.2 Proposed course catalog listing:
Study of bacterial, animal and plant viruses. Emphasis is on the molecular aspects of the viral life cycle and pathogenesis.

3.3 Rationale for revision of course catalog listing:
The revision is a more inclusive and accurate description of the course.

4. Proposed term for implementation:
Fall 2007

5. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: January 22, 2007

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

Contact Person: Claire Rinehart, Claire.Rinehart@wku.edu, 745-5997

1. Identification of course:

1.1 Current course prefix (subject area) and number: BIOL 495
1.2 Course title: Molecular Genetics
1.3 Credit hours: 3

2. Revise course prerequisites:

2.1 Current prerequisites:
BIOL 450

2.2 Proposed prerequisites:
BIOL 311 or BIOL 150 and BIOL 151

2.3 Rationale for revision of course prerequisites:
Several years ago BIOL 450 was changed to a laboratory course and is no longer an appropriate prerequisite for BIOL 495

2.4 Effect on completion of major/minor sequence:
Currently this course, while not restricted, is limited to students majoring in Recombinant Genetics (#764) due to the BIOL 450 prerequisite. The proposed change will open this course to other students majoring in Biology.

3. Revise course catalog listing:

3.1 Current course catalog listing:
A study of the molecular basis of genetics and heredity in prokaryotic and eukaryotic organisms.

3.2 Proposed course catalog listing:
A study of the molecular basis of genetics in prokaryotic and eukaryotic organisms.

3.3 Rationale for revision of course catalog listing:
The revision is a more concise and accurate description of the course.

4. Proposed term for implementation:
Fall 2007

5. Dates of prior committee approvals:

Biology Department:	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: *9/22/2006*

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

Contact Person: Stacy Wilson, stacy.wilson@wku.edu, 55848

1. Identification of course:

1.1 Current course prefix (subject area) and number: EE 200
1.2 Course title: Electrical Engineering Design II
1.3 Credit hours: 1

2. Revise course prerequisites/corequisites/special requirements:

2.1 Current prerequisites : EE 180
2.2 Proposed prerequisites: None
2.3 Current corequisites : None
2.4 Proposed corequisites : EE 210
2.5 Rationale for revision of course prerequisites/corequisites requirements: Fundamental circuit theory offered in EE 210 is required to effectively learn simulation tools
2.6 Effect on completion of major/minor sequence: No effect

3. Revise course catalog listing:

3.1 Current course catalog listing: The continuation of the engineering design process including cost constraints and teamwork. Ethics and professionalism will also be discussed. This course includes an introduction to microprocessor and programming techniques.

3.2 Proposed course catalog listing: A continuation of the engineering design process, including an introduction to circuit and math simulation software tools, printed circuit board software and fabrication techniques. Ethics and professionalism will be addressed.

3.3 Rationale for revision of course catalog listing: The proposed description reflects the content of the course.

4. Proposed term for implementation: Fall 2007

5. Dates of prior committee approvals:

Engineering Department/Division:	___9/22/2006_____
Ogden College Curriculum Committee	_February 1, 2007___
University Curriculum Committee	_____
University Senate	_____

Attachment: Course Inventory Form

Proposal Date: January 19, 2007

Ogden College of Science and Engineering
Department of Biology
Proposal to Create a New Minor Program
(Action Item)

Contact Person: Nancy Rice; nancy.rice@wku.edu; 745-5995

1. Identification of program:

1.1 Program title: Investigative Biotechnology
1.2 Required hours in minor program: 24
1.3 Special information: None
1.4 Catalog description:

The minor in Investigative Biotechnology requires a minimum of 24 semester hours in biology. The required courses are BIOL 150, BIOL 151, and BIOL 350. Students, with the aid of their advisors, select additional biology courses to complete the minor; at least 12 hours must be at the 300-level or above.

2. Rationale:

2.1 Reason for developing the proposed minor program:

As a result of the current, rapidly expanding "genomics era", we are seeing recombinant DNA technology being applied in numerous fields due to the ability to manipulate and sequence DNA. Many students have as their primary interest psychology, computer science, agriculture, forensics, etc. and need a foundation in the application of biotechnology to these specialties. Therefore, the IB minor is being developed to allow those students *not* majoring in IB an opportunity to receive introductory training in biotechnology in order to merge molecular biology skill sets with their respective areas of study.

2.2 Projected enrollment in the proposed minor program:

We anticipate approximately 15-20 students in the minor initially; yet as other disciplines begin to use biotechnology in their areas of study, it is anticipated that this program will rapidly expand.

2.3 Relationship of the proposed minor program to other programs now offered by the department:

The proposed minor will augment the current biology curriculum in that it offers a foundation in biotechnology skills to two different sets of students in our department:

- those students who are not pursing post-graduate education in molecular biology yet are interested in post-baccalaureate technical/industry positions in biotechnology

- the many students in our department interested in applying biotechnology skills to problems in ecology, evolution, and biodiversity

2.4 Relationship of the proposed minor program to other university programs:

No other program at Western offers training in biotechnology. Since there are many biotechnology-related fields, the proposed minor would be appropriate for those students majoring in agriculture, psychology, computer science, and even journalism, thus providing a significant background in biotechnology to be applied to their respective disciplines. Integration of biotechnology skills with classic disciplines will ultimately give our students a selective edge for jobs on the cutting edge of science.

2.5 Similar minor programs offered elsewhere in Kentucky and in other states (including programs at benchmark institutions):

No other universities in Kentucky offer a minor in Biotechnology; thus a program of this nature at Western would provide a much needed course of study to advance the economy of Kentucky (the closest program geographically is at the University of Missouri-St. Louis) and a unique opportunity for the recruitment of students. Benchmark institutions that offer such a program include Eastern Illinois (a 2+2 program with Lakeland College in Biotechnology/Biochemistry) and Missouri State University (Biotechnology and Microbiology). Other benchmarks do offer certifications - CSU-Fresno, Ball State, and Florida Atlantic University. Many other top universities offer such a degree option as well. Some of these include: North Carolina State, Univ. of California-Fullerton; Purdue, University of Southern California; Tufts; McGill; Cal Poly –Pomona; Lehigh University

2.6 Relationship of the proposed minor program to the university mission and objectives:

The minor in Investigative Biotechnology will help to prepare all of our students to meet the challenges of rapidly changing technologies and explosions in information. The Biotechnology Core courses will provide hands-on experience in this field. By increasing the depth and sophistication of the training our students receive, we will provide a competitive workforce for industry as well as future leaders that will push Kentucky to the leading edge of biotechnology.

3. Objectives of the proposed minor:

- Train undergraduates in the foundational content and skill sets of biotechnology
- Engage students in hands-on, student-directed learning
- Provide an opportunity for students in other disciplines of study to acquire biotechnology skills applicable to their area of interest
- Produce skilled graduates who are competitive for biotechnology positions

4. Curriculum:

Total Hours: **13 h – Core courses**
11 h - Advisor approved biology electives
24 total hours

Curriculum: **Core Courses (13 hrs)**
Biol 150 : IB Core I (5)
Biol 151 : IB Core II (5)
Biol 350 : Recombinant Gene Technology (3)

5. Budget implications:
None

6. Proposed term for implementation:
Fall 2007

7. Dates of prior committee approvals:

Biology Department	January 25, 2007
OCSE Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Program Inventory Form

Proposal Date: January 23, 2007

Proposal Date: January 23, 2007

Ogden College of Science & Engineering
Department of Architectural & Manufacturing Sciences
Proposal to Revise A Program
(Action Item)

Contact Person: Name: Denise Gravitt
email: denise.gravitt@wku.edu
phone: 745-2176

1. Identification of program:

1.4 Current program reference number: 533
1.5 Current program title: Construction Management
1.6 Credit hours: 128

2. Identification of the proposed program changes:
Add new courses AMS 140, AMS 180, AMS 398, CM 250, CM 400, ECON 150, PHIL 321, Program Elective, Management Elective, and Science Elective.

Revise existing course numbers of CM 326 to CM 426, CM 362 to CM 462 and CM 356 to CM 447.

Delete courses CE 370, CE 371, CE 416, ECON 202, GEOL 111, GEOL 113, MATH 132, MGT 301.

Increase program credit hours to 129.5

3. Detailed program description:

See attached page.

4. Rationale for the proposed program change: Program faculty intend to apply for American Council of Construction Education (ACCE) accreditation. In order to meet ACCE guidelines for content, some new courses needed to be created and other revisions made for content area coverage. Changes to existing course numbers are proposed to better reflect sequences needed to complete the prerequisites and the year in which the courses are taken by students. A course title change for CM 356 (447) is proposed to accurately reflect current industry standards as suggested by our industrial advisory board.

5. Proposed term for implementation and special provisions (if applicable): Fall 2007

6. Dates of prior committee approvals:

Architectural & Manufacturing Sciences Dept_____1/23/2007_____

Ogden College Curriculum Committee _____2/1/2007___

University Curriculum Committee _____2/22/2007__

University Senate _____

Attachments: Program Inventory Form & #3.

3. Detailed program description:					
(Program Credit Hours)		128	129.5		
CONSTRUCTION MANAGEMENT (OLD)		**73**	**75.5**	**CONSTRUCTION MANAGEMENT (NEW)**	
			1	**AMS 140**	**Intro to Occupational Safety**
Architectural Drafting	AMS 202	3	3	AMS 202	Architectural Drafting
Construction Methods and Materials	AMS 261	3	3	AMS 261	Construction Methods and Materials
Industrial Statistics	AMS 271	3	3	AMS 271	Industrial Statistics
Architectural Documentation	AMS 320	4	4	AMS 320	Architectural Documentation
Survey of Building Systems	AMS 325	3	3	AMS 325	Survey of Building Systems
			1.5	**AMS 398**	**Internship I**
Tech Mgmt/Supervision/Team Bldg	AMS 430	3	3	AMS 430	Tech Mgmt/Supervision/Team Bldg
Senior Research	AMS 490	3	3	AMS 490	Senior Research
Surveying I	CE 160	3	3	CE 160	Surveying I
Surveying I Lab	CE 161	1	1	CE 161	Surveying I Lab
Construction Management	CE 303	3	3	CE 303	Construction Management
Construction Management Lab	CE 304	1	1	CE 304	Construction Management Lab
Equipment & Methods	CE 316	3	3	CE 316	Equipment & Methods
Materials of Construction	**CE 370**	**2**			
Construction Materials Lab	**CE 371**	**1**			
Construction Administration	**CE 416**	**3**	**3**	**CM 400**	**Construction Administration**
Applied Statics	CM 227	3	3	CM 227	Applied Statics
			3	**CM 250**	**Contract Documents**
Applied Strength of Materials	CM 337	3	3	CM 337	Applied Strength of Materials
Applied Strength of Materials Lab	CM 339	1	1	CM 339	Applied Strength of Materials Lab
Applied Soil Mechanics & Foundations	CM 346	**3**	3	CM 346	Applied Soil Mechanics & Foundations
Construction Estimating & Bidding	CM 363	3	3	CM 363	Construction Estimating & Bidding
Construction Law	CM 326	**3**	3	**CM 426**	Construction Law
Basic Structural Design	CM 356	3	3	**CM 447**	**Applied Structural Design**
Construction Scheduling	CM 362	3	3	**CM 462**	Construction Scheduling
Introductory Accounting Financial	ACCT 200	3	3	ACCT 200	Introductory Accounting Financial
Introductory Accounting Managerial	ACCT 201	3	3	ACCT 201	Introductory Accounting Managerial
Business Law	**MGT 301**	**3**	**3**	**MGT Elective**	**MGT 305, 308, 312, 361; AMS 390**
Human Resources Management	MGT 311	3	3	MGT 311	Human Resources Management
GENERAL EDUCATION		**46**	**46**		
Category A					**Category A**
	ENG 100	3	3	ENG 100	
	ENG 300	3	3	ENG 300	
	Foreign Lang	3	3	Foreign Lang.	
	Public Speaking	3	3	COMM 161(145)	Public Speaking
Category B					**Category B**
	ENG 200	3	3	ENG 200	
	Category B-II	3	**3**	**AMS 180**	Architecture & Civilization
	Category B-II	3	**3**	**PHIL 321**	Morality and Business
Category C					**Category C**
	HIST 119/120	3	3	HIST 119/120	Western Civilization
	ECON 202	3	3	**ECON 150**	Introduction to Economics
	Category C	3	3	Category C Elect.	
Category D					**Category D**
Intro to College Chemistry	CHEM 116	3	3	CHEM 116	
Fundamentals of Gen Chem Lab	CHEM 106	1	1	CHEM 106	
	PHYS 201	4	4	PHYS 201	
	MATH 122	3	**3**	MATH 122	
Category E					**Category E**
	Cultures	3	3	Culture Elective	
Category F					**Category F**
	SFTY 171	1	1	SFTY 171	
	PE	1	1	PE	
OTHER REQUIREMENTS		**9**	**8**		
University Experience/AMS	AMS 175	2	2	AMS 175	University Experience/AMS
Calculus of a Single Variable II	**MATH 132**	**3**	**3**		**Program Elective**
The Earth	**GEOL 111**	**3**	**3**		**Science Elect.**
The Earth Laboratory	**GEOL 113**	**1**			

Proposal Date: January 9, 2007

Ogden College of Science and Engineering
Department of Biology
Proposal to Revise A Program
(Action Item)

Contact Person: Nancy Rice, nancy.rice@wku.edu, 745-5995

1. Identification of program:

1.1 Current program reference number: 764
1.2 Current program title: Recombinant Genetics
1.3 Credit hours: 36

2. Identification of the proposed program changes:
We propose to:

- change the program name to **Investigative Biotechnology** to more accurately reflect core course content and pedagogical approach
- change the number of required hours from 36 to 48
- add an additional six new courses to the program: BIOL 150, 151, 199, 275, 312, and 327 in order to modernize the program based upon new advancements in the field
- remove six courses not adequate in content for the program: BIOL 120, 121, 122, 123, 220, 221 in order to focus on teaching skill sets necessary for success in *research*
- add BIOL 369 or BIOL 399 as alternatives to BIOL 450 in order to accurately represent the value of independent investigation in the curriculum
- add BIOL 283 as alternative to MATH 126 since except for high level biophysical chemistry, statistics is more practical than calculus for the molecular biology researcher

3. Detailed program description:
The proposed revised program will:

- incorporate five new courses that will modernize the program with contemporary content and laboratory technique
- use discovery-based/hypothesis testing pedagogy in courses
- engage students early in application of content and techniques through a required *research* experience
- offer a special topics course (BIOL 275) for discussion of contemporary issues in biotechnology
- include an ethics/scientific integrity component to encourage social responsibility and debate of science public policy

The five new courses are briefly summarized below for clarity. The new program will be a 48 hour major, thus eliminating the need for a minor:

- Biol 150 – IB Core I : a modularly taught foundation course teaching content and skill sets required for successful completion of the major
- Biol 151 – IB Core II : continuation of Biol 150
- Biol 199 – Introduction to the research experience : laboratory rotations for freshman IB majors that introduce students to laboratory culture, biological research, and faculty in the department; 2 rotations
- Biol 275 – Colloquia : special topics courses to enhance overall course work
- Biol 312 – Bioinformatics : Deriving knowledge from computer analysis of biological data – in particular storage, retrieval, and analysis of the data

For the following table, bold indicates a change in the program.

Current Program Options (Credit Hrs)	**Proposed Program Options (Credit Hrs)**
This program (reference number 764) meets the needs of students interested in the rapidly growing field of genetic engineering and molecular genetics. Recombinant genetics is expanding in many directions including the production of new pharmaceutical drugs, industrial chemicals, food products, energy sources, pollutioncontrol products and, more recently, methods employed in agriculture. In addition to receiving training for industrial employment, graduates of this program will also have the broad liberal arts training necessary to enter graduate programs. The major requires a minimum of 36 semester hours in biology. The required core courses are: BIOL 120122-123, 220350, 411, 446, 450, and 495. Required supporting courses are: CHEM 120222223, 314 or 340-341/342-343, MATH 126, and PHYS 231332 Any course in the biology curriculum applicable to the biology major may be used as an elective for the recombinant genetics major.	This program (reference number 764) meets the needs of students interested in the rapidly growing field of molecular genetics and **biotechnology**. **Biotechnology** is expanding in many directions including the production of new pharmaceutical drugs, industrial chemicals, food products, energy sources, pollution control products and, more recently, methods employed in agriculture. Graduates of this program will have the broad liberal arts training necessary to enter graduate programs **and the contemporary skills to be competitive for top positions in industry or academia.** The major requires a minimum of **48** semester hours in biology. The required core courses are: BIOL **150, 151, 199, 275, 312, 327,** 350, **369 or 399 or** 450, 411, 446, and 495. Required supporting courses are: CHEM 120-121/222-223, 314 or 340-341/342-343, MATH 126 or **BIOL 283**, and PHYS 231-332. Any course in the biology curriculum applicable to the biology major may be used as an elective for the **Investigative Biotechnology** major **in consultation with the student's advisor.**
BIOL 120 (3) : Bio Concepts - Cells, Met, and Genes	
BIOL 122 (3) : Bio Concepts - Evo, Div, and Ecol	
BIOL 123 (1) : Bio Concepts Lab	
	BIOL 150 (5) : IB Core I
	BIOL 151 (5) : IB Core II
	BIOL 199 (1) : Intro to Res. Experience
	BIOL 275 (3) : Colloquia
	BIOL 312 (4) : Bioinformatics

BIOL 220 (3) : Intro Cell and Mol	
BIOL 221 (1) : Intro Cell Mol Lab	
	BIOL 327 (4) : Genetics
BIOL 350 (3) : Intro to RGT	BIOL 350 (3) : Intro to RGT
	BIOL 369 or 399 or 450 (3)
BIOL 411 (3) : Cell Biology	BIOL 411 (3) : Cell Biology
BIOL 446 (3) : Biochemistry I	BIOL 446 (3) : Biochemistry I
BIOL 450 (3) : Recombinant Gene Technology	
BIOL 495 (3) : Molecular Genetics	BIOL 495 (3) : Molecular Genetics
+ 9 hours of elective credit in Biology	+ 11 hours of elective credit in Biology
Total credit hours = 36	**Total credit hours = 48**
Supporting Course Work	**Supporting Course Work**
CHEM 120-121 (5)	CHEM 120-121 (5)
CHEM 222-223 (5)	CHEM 222-223 (5)
CHEM 314 (5) OR 340-341 (5) AND 342-343 (5)	CHEM 314 (5) OR 340-341 (5) AND 342-343 (5)
MATH 126 (4.5)	MATH 126 (4.5) **or BIOL 283 (4) :** Calculus or **Intro to Biostatistics**
PHYS 231-232 (4)	PHYS 231-232 (4) : Biophysics I
PHYS 332-233 (4)	PHYS 332-233 (4): Biophysics II

4. Rationale for the proposed program change:

The Biology Department proposes the following changes to the Recombinant Genetics major in order to create a contemporary curriculum that is *research driven* [BIOL 199 and BIOL 399], includes integration of bioinformatics [BIOL 150 and BIOL 320] and advanced skill sets [BIOL 150, 151, 275, 312, and 350], and engages students in problem-based, student-directed **experiential** learning. The current RGT major, while rigorous and successful in producing a minimal number of highly competitive students, does very little to provide exposure to modern molecular biology content [BIOL 150-151], bioinformatics [BIOL 312], and practical skill sets [BIOL 150-151, BIOL 283] necessary for success scientist. The proposed changes will serve to modernize the current program resulting in an increase in the number of students in the major as well as an increase in the competitiveness of these students for post-baccalaureate biotechnology jobs and graduate programs. Development of the proposed curriculum will also establish a unique program at Western Kentucky University that is not typically found in undergraduate institutions leading to regional and national distinction in undergraduate education.

5. Proposed term for implementation and special provisions (if applicable):

Term : Fall 2007

6. Dates of prior committee approvals:

Biology Department	__January 25, 2007__
OCSE Curriculum Committee	__February 1, 2007___
University Curriculum Committee	_____
University Senate	_____

Attachment: Program Inventory Form

Proposal Date: December 1, 2007

Ogden College of Science and Engineering
Department of Engineering
Proposal to Revise A Program
(Action Item)

Contact Person: Warren Campbell
warren.campbell@wku.edu
5-8988

1. Identification of program:

1.1 Current program reference number: 361
1.2 Current program title: Floodplain Management
1.3 Credit hours: 21

2. Identification of the proposed program changes: Add the following electives to the program.

GEOL 111 The Earth
GEOL 113 The Earth Laboratory
GEOG 433 Dynamic Meteorology II
GEOG 437 Mesoscale Meteorology
GEOG 438 Physical Meteorology

3. Detailed program description:

Existing Program

Required Courses (13 semester hours):	**Credit**
CE 160/161 Fundamentals of Surveying and Surveying Lab	4 hrs
CE 300 Floodplain Management	3 hrs
GEOG 318 GIS for Engineers*	3 hrs
CE 461 or GEOG/GEOL 310 Hydrology	3 hrs

*Geography or geology students can substitute GEOG 317 for GEOG 318.

Elective Courses (Choose at least 8 semester hours):	**Credit**
GEOG 121 Meteorology	3 hrs
GEOG 207 Hurricanes	1 hrs
GEOG 208 Floods and Droughts	1 hrs
GEOG 209 Natural disasters	1 hrs
GEOG 391 Data analysis and interpretation	3 hrs
GEOG 414 Introduction to Remote Sensing	4 hrs
GEOG 416 Remote Sensing	3 hrs
GEOG 417 GIS Analysis and Modeling	3 hrs
GEOG 419 GIS Application Development	3 hrs
GEOG/GEOL 420 Geomorphology	4 hrs
GEOG 422 Physical Climatology	4 hrs
GEOG 424 Weather Analysis and Forecasting	3 hrs
GEOG 426 Applied Meteorology/Climatology	3 hrs

Proposed Program

Required Courses (13 semester hours):	**Credit**
CE 160/161 Fundamentals of Surveying and Surveying Lab	4 hrs
CE 300 Floodplain Management	3 hrs
GEOG 318 GIS for Engineers*	3 hrs
CE 461 or GEOG/GEOL 310 Hydrology	3 hrs

*Geography or geology students can substitute GEOG 317 for GEOG 318.

Elective Courses (Choose at least 8 semester hours*):	**Credit**
GEOL 111 The Earth	**3 hrs**
GEOL 113 The Earth Laboratory	**1 hrs**
GEOG 121 Meteorology	3 hrs
GEOG 207 Hurricanes	1 hrs
GEOG 208 Floods and Droughts	1 hrs
GEOG 209 Natural disasters	1 hrs
GEOG 391 Data analysis and interpretation	3 hrs
GEOG 414 Introduction to Remote Sensing	4 hrs
GEOG 416 Remote Sensing	3 hrs
GEOG 417 GIS Analysis and Modeling	3 hrs
GEOG 419 GIS Application Development	3 hrs
GEOG/GEOL 420 Geomorphology	4 hrs
GEOG 422 Physical Climatology	4 hrs

GEOG 427 Water Resources	3 hrs
GEOG 431 Dynamic Meteorology	3 hrs
GEOL 445 Aqueous Geochemistry	3 hrs
GEOG 455 Global Environment Change	3 hrs
GEOG 474 Environmental Planning	3 hrs
GEOG 477 Special Topics in Geographic Information Systems†	3 hrs
CE 351 Introduction to Environmental Engineering	3 hrs
CE 378/379 Boundary Surveying and Lab	4 hrs
CE 380/381 Route Surveying and Lab	4 hrs
CE 462 Hydraulic Engineering Systems	3 hrs

†Requires project in floodplain related area

GEOG 424 Weather Analysis and Forecasting	3 hrs
GEOG 426 Applied Meteorology/Climatology	3 hrs
GEOG 427 Water Resources	3 hrs
GEOG 431 Dynamic Meteorology	3 hrs
GEOG 433 Dynamic Meteorology II	**3 hrs**
GEOG 437 Mesoscale Meteorology	**3 hrs**
GEOG 438 Physical Meteorology	**3 hrs**
GEOL 445 Aqueous Geochemistry	3 hrs
GEOG 455 Global Environment Change	3 hrs
GEOG 474 Environmental Planning	3 hrs
GEOG 477 Special Topics in Geographic Information Systems†	3 hrs
CE 351 Introduction to Environmental Engineering	3 hrs
CE 378/379 Boundary Surveying and Lab	4 hrs
CE 380/381 Route Surveying and Lab	4 hrs
CE 462 Hydraulic Engineering Systems	3 hrs

†Requires project in floodplain related area

* At least 2 hours of electives must be 300 or 400 level courses

4. Rationale for the proposed program change: GEOG 111/113 are added because of the recognition that the class and lab cover topics relevant to floodplain management. Plate tectonics have a significant impact on river morphology, a relation explored in detail in a FEMA floodplain management graduate course. The other courses added as electives are recently approved courses with significant floodplain relevance.

5. Proposed term for implementation: Summer 2007

6. Dates of prior committee approvals:

Engineering Department	January 23, 2007
Ogden College Curriculum Committee	February 1, 2007
University Curriculum Committee	_____
University Senate	_____

Attachment: Program Inventory Form