FORM I – SUMMARY PAGE FOR PROPOSAL 

1. **Course Number and Title:** BIOL 3701 – Bioethics

2. **Submitting College:** COST

3. **Department(s) Generating The Proposal:** Natural Sciences- Biology

4. **Effective Date:** Spring 2011

5. **Brief Summary of Proposal:** This revised undergraduate course promotes Responsible Conduct in Research (RCR) with emphasis on issues related to minority health disparities and inequalities. Topics covered include: definition of scientific integrity and misconduct in science; conflict of interest, plagiarism, informed consent, data management, requirements for use of human subjects in research, animal welfare, obligations of parties involved in collaborative research, expectations of mentors and mentees in research, recombinant DNA research technology, laboratory safety, responsible authorship, intellectual property, copy rights and patents. A new unit on emerging minority health disparities and inequalities in health care will be addressed. Literature links significant higher incidence and prevalence if certain diseases among minorities compared to similar white population groups due to inequality and inaccessibility to quality health care. Minority health disparities are prevalent in longevity, obesity, infant mortality, diabetes I and II, hypertension, AIDS and other diseases. The teaching of RCR is required by most federal training grants and graduate schools. Upon completion of this course, our undergraduate students will be better prepared to make informed decision in choosing a career in the area of health disparity and inequalities.

6. **Type of Proposal:** Credit hour change from one to three

7. **Graduate School Endorsement Status:** N/A

8. **Impact on Library Holdings**
   - Existing: N/A
   - Additional: N/A
   - Deletions: N/A

9. **Impact on Existing Programs:**
   The course upgrade will conform to other electives that carry 3 credit hours. Besides, the extensive course syllabus warrants enhancing the course from one to three semester hours. The course will further strengthen the academic preparation of students interested in pursuing careers as related to health disparities in medicine, biomedical research, environmental and public health.

10. **Additional Resources Required**
    - Personnel: None
    - Non-personnel: None
11. **Approvals:**

- **Department Curriculum Committee**  Signature________________________ Date____________

- **Department Chair**  Signature________________________ Date____________

- **College Curriculum Committee**  Signature________________________ Date____________

- **College Dean**  Signature________________________ Date____________

- **New Programs & Curriculum Committee**  Signature________________________ Date____________

- **Faculty Senate**  Signature________________________ Date____________
FORM IV - COURSE CHANGE FORM FOR PROPOSAL #

A. **Course Number**
   Current: Biol 3701          New: Biol 3701

B. **Course Title**
   Current: Bioethics          New: Bioethics

C. **Catalog Description**
   Current:
   A course designed to promote responsible conduct of science. Topics covered include scientific integrity, misconduct in science, conflict of interest, plagiarism, informed consent, data management, human subjects, animal welfare, recombinant DNA research, laboratory safety, responsible authorship, intellectual property, copy rights and patents as well as peer review process.

   New:
   The course is designed to promote responsible conduct of science. Topics covered include scientific integrity, misconduct in science, conflict of interest, plagiarism, informed consent, data management, human subjects, animal welfare, recombinant DNA research, laboratory safety, responsible authorship, intellectual property, copy rights, patents and peer review process. **A unit on issues related to minority health disparities and inequalities will be added.**

D. **Rationale**
   Current literature links significant higher incidence and prevalence of certain diseases among minorities compared to similar white population cohort due to lack of access to quality health care. Documented disparities are prevalent in longevity, obesity, infant mortality, diabetes I and II, hypertension, AIDS and other diseases. Upon completion of this course, the students will be better prepared to make career choices that will address the issue of health disparity and inequalities among various minorities in the future. The course will further strengthen the academic preparation of students interested in pursuing careers related to health disparities in medicine, biomedical research, environmental and public health.

E. **Library Resource Statement:** Library resources will be updated to include books and journals on minority health research.
   - Existing: No change
   - Additional: No change
   - Deletions:

F. **Credit Hours**
   Current: One          New: Three
G. **Pre-requisites**
   Current: Biol 1108  
   New: Biol 1108  
   Deletions:

H. **Syllabus:** Attached

I. **Similarity to or Duplication of Existing Courses:** N/A

J. **Textbook Change (include title, author and ISBN#):**

K. **Grading Method**
   Current: See syllabus  
   New: No change
Course Description: Bioethics (1-0-1)
A course designed to promote responsible conduct of science. Topics covered include scientific integrity, misconduct in science, conflict of interest, plagiarism, informed consent, data management, human subjects, animal welfare, recombinant DNA research, laboratory safety, responsible authorship, intellectual property, copy rights and patents as well as peer review process.
Prerequisite: Biol 1108

Expected Student Learning Outcomes (SLO):
After the completion of this course, the student will:
1. Have the basic educational knowledge on practicing responsible conduct in research and have some insight how grant proposals and manuscripts are reviewed.
2. Determine what constitutes a plagiarism, fabrication and falsification in biomedical research.
3. Determine if IRB and IACUC approvals are needed to conduct biomedical/behavioral research when using human subjects and animals, respectively.
4. Will be more knowledgeable in practicing safe laboratory procedures consistent with the regulatory agencies.
5. Understand responsible authorship and characteristics of mentor-mentee relationships.
6. Have knowledge on the regulation and procedures involved on the ownership of data, intellectual property such trade secrets, trademarks, copy rights and patents.
7. Knowledgeable on issues related to minority healthcare and inequalities.

Required Textbook and Supplemental Readings:
Required Text: Scientific Integrity by Francis L. Macrina, 3rd edition (2005), ASM Press Washington, DC
Other Recommended Readings:
ORI Introduction to Responsible Conduct of Research by Nicholas H. Steneck. 2006.
Macrina, FL, Munro, CL. Graduate teaching in principles of scientific integrity. Acad Med. 68(12):879-86. 1993 Dec.
K. Grading: (see attached syllabus)

Assessment Tools:
Activity                      Weight
Classroom Assignments         25%
Midterm                      25%
Term paper                   25%
Final Exam                   25%
Typical Grading Scale based on percentage average:
A > 90, B >80, C>70, D> 60, F< 60
NOTE: No makeup quizzes or exams for unexcused absences. Instructor reserves the right to drop a student from the course due to excessive absences. Five to ten percent points may be deducted for each late assignment, if accepted. Cell phones must be off in classroom.

**Methods of Instruction:** Lecture, discussion, term paper, analysis of case studies and guest speakers. Exams/tests will consist of mainly short answers, case studies, discussions and definitions.

**Class Attendance Policy:** No more than one unexcused absence. Instructor can withdraw a student from the course due to excessive absenteeism.

**Academic Honesty:** Refer to student guide in the catalog

**Disability Clause:** If a student has a documented and declared disability, reasonable accommodations will be provided if requested by the student according to the recommendations of the office of Counseling and Disability Services (CDS) (912) 356-2285/ (912) 303 1650/ (912) 356-2202.

**Core Competencies:** This course will emphasize Reading, Writing, Analytical Thinking, Problem Solving and Speaking.

**Unit I. Ethical Training Practices General**
Student Learning Outcome (SLO): Learn Basic concepts of bioethics and how they are applied in the conduct of biomedical research.
Unit outline:
- Fair performance evaluations, compensation, and benefits
- Responsibility to teach
- Responsibility to mentor
- Responsibility to give credit
- Avoidance of exploitation
- Define ethics and scientific misconduct

**Unit II. Responsible Conduct of Research (RCR)**
SLO: Design research procedures to avoid subjectivity, analyze data without any bias, share research materials and information openly and adhere to rules about safety, animal use and IRB regulations.
Unit Outline:
- Define misconduct
- Research design
- Data selection and analysis
- Data management
- Safety, animal welfare and IRB rules and regulations

**Unit III. Mentoring**
SLO: List characteristics of mentor and mentee, how to select a mentor and become familiar with mentoring guidelines.

**Unit IV. Authorship and Peer Review**
SLO: Decide the sequence of authorship, recognize the contribution of each author and credit other people’s work.
Unit Outline
- Authorship criteria
- Recognizing other person’s contribution
- Crediting previous work
d. Duplicate and fragmented publication
e. Avoidance of premature reporting or publishing
f. Reporting in the public media

**Unit V. Use of Humans in Biomedical Research**
SLO: To determine if IRB approval is needed for human research and become familiar with the requirements of IRB approval and informed conduct.
Unit Outline:
a. Informed Consent
b. Institutional Review Board (IRB)
c. Expedited Review
d. Special Populations in Research
e. HIPPA
f. Fetal Tissue and Embryonic Stem Cell Research

**Unit VI. Use of Animal in Biomedical Experimentation**
SLO: Know the role of an Institutional Committee on Animal use (IACUC) and protocols for obtaining IACUC approval.
Unit Outline:
a. Ethical Challenges to the Use of Animal in Research
b. Practical Matters
c. Political Realities

**Unit VII. Conflicts of Interest**
SLO’S: Become familiar with requirements for disclosure and prohibitions, recognize financial reward compromising scientific integrity, objectivity conflicts of commitment and recognize nepotism.

**Unit VIII. Collaborative Research**
SLO: Understand power and challenges of collaborative research, how to formalize collaborations, responsibilities and rewards of collaborating parties, who owns data and how to decide order of authorships.
Unit Outline:
a. Overview, Definition of Collaborative
b. Nature of Collaboration
c. Collaboration Models
d. Responsibilities of Collaborative parties
e. Authorship order
f. Date Ownership

**Unit IX. Data Ownership and Intellectual Property**
SLO: Know who owns data generated in research, legal form of protection of research data, know the difference between trade secrets, trademarks, copyrights and patents.
Unit Outline:
a. Review of Ownership of Research Data
b. Rights in Triangle Personal Property
c. Trade Secrets
d. Trademarks
e. Copyrights
f. Patents
g. Patent Law in the Age of Biotechnology
h. Seeking a Patent
Unit X. Scientific Record Keeping
SLO: Understand why we keep records; define data, data ownership, data retention requirements and laboratory record-keeping policies.
Unit Outline:
  a. Data Storage and Retention
  b. Tools of the Trade
  c. Laboratory Record Keeping Policies
  d. Suggestions for Record Keeping
  e. Electronic Record Keeping

Unit XI. Maintain Confidentiality
SLO: Maintain confidentiality in reviewing publications, grant proposals, confidentiality in privileged personal communications.
Unit outline:
  a. Confidentiality in reviewing manuscripts for publication
  b. Confidentiality in reviewing grant proposals
  c. Confidentiality in privileged personal communications

Unit XII. Issues Related To Minority Healthcare and Inequalities
SLO:
  a. Know how minority characteristics affect quality and access to health care availability
  b. Identify the factors that may lead to differences in health care administered
  c. Identify why preventive care is often missed in persons of lower socioeconomic status
Unit outline:
  a. Educating and training of health care personnel in addressing minority health disparities
  b. Barriers to quality health care for minorities.
  c. List of federal and private resources accessible to minority on health disparities.
  d. Analyzing case studies on minority health disparities.
  e. Focus groups on specific health disparities among minorities.
  f. Surveys in documenting health disparity needs in the local community.
  g. Research ethics with underserved groups.
  h. Community-based healthy needs and intervention strategies.
  i. Health disparity awareness seminars in local community groups such as high schools, churches and other related organizations
  j. An advisory panel to identify and address health disparities in the local community.
  k. Past injustices regarding health care related to minorities.
  m. Moral, legal and ethical issues in health care as related to disparities.