Submit original with signatures + 1 copy + electronic copy to UAF Governance. See [http://www.uaf.edu/uafgov/faculty/cd](http://www.uaf.edu/uafgov/faculty/cd) for a complete description of the rules governing curriculum & course changes.

### TRIAL COURSE OR NEW COURSE PROPOSAL

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Office of Research Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared by</td>
<td>Kelly Hochstetter</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:k.hochstletter@uaf.edu">k.hochstletter@uaf.edu</a></td>
</tr>
<tr>
<td>College/School</td>
<td>NA</td>
</tr>
<tr>
<td>Phone</td>
<td>x7832</td>
</tr>
<tr>
<td>Faculty Contact</td>
<td>Kelly Hochstetter</td>
</tr>
<tr>
<td></td>
<td>John Blake</td>
</tr>
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</table>

1. **ACTION DESIRED**
   (CHECK ONE):
   - [ ] Trial Course
   - [ ] New Course **X**

2. **COURSE IDENTIFICATION:**
   - Dept: LAS
   - Course #: 601
   - No. of Credits: 2
   - Course is intended to prepare graduate students for careers in research and to fulfill funding agency requirements that all funded graduate students receive instruction in the responsible conduct of research. As proposed the course will meet twice weekly for one hour per session: 28 sessions x 60 minutes/session = 1680 minutes, which qualifies for 2 credits.

3. **PROPOSED COURSE TITLE:**
   - Responsible Conduct of Research

4. **CROSS LISTED?**
   - YES/NO: No
   - If yes, Dept: NA
   - Course #: NA
   (Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

5. **STACKED?**
   - YES/NO: No
   - If yes, Dept: NA
   - Course #: NA

6. **FREQUENCY OF OFFERING:**
   - Every Fall and Spring
   - (Every or Alternate) Fall, Spring, Summer — or As Demand Warrants

7. **SEMESTER & YEAR OF FIRST OFFERING** (if approved)
   - Spring 2010 AND WINTERMESTER

8. **COURSE FORMAT:**
   - COURSE FORMAT:
     - (check one)
     - Mode of delivery (specify lecture, field trips, labs, etc)
     - Lecture and Discussion
     - Full Semester
     - 6 weeks to full semester

9. **CONTACT HOURS PER WEEK:**
   - 2 LECTURE hours/week
   - 0 LAB hours/week
   - 0 PRACTICUM hours/week
   - Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See [http://www.uaf.edu/uafgov/faculty/cd/credits.html](http://www.uaf.edu/uafgov/faculty/cd/credits.html) for more information on number of credits.

10. **COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):**
    - Responsible Conduct of Research. LAS 693 (2 credits). Maintaining the public trust and the respect of your fellow scientists requires a clear understanding of the basic principles under which research is conducted and reported. We trust that researchers behave properly, are objective, and that they will clearly report the facts and their interpretation of the underlying "truth". Researchers behaving badly erode our trust and raise questions about the integrity of the research record. To succeed in today's increasingly complex research environment every new researcher needs to develop their skill in ethical decision making. Using a case based approach this course introduces students to the basic principles and expectations that form the foundation of research integrity. Students will learn to recognize and address ethical dilemmas in research scenarios thus preparing them for situations that will invariably arise during their career.

    Enrollment is open to all interested individuals with senior undergraduate or graduate student standing.
Interested post-doctoral fellows and others with terminal degrees are also invited to enroll. This course fulfills National Science Foundation and National Institutes of Health requirements that funded trainees receive formal instruction in the Responsible Conduct of Research.

11. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)
   
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<tbody>
<tr>
<td>H = Humanities</td>
<td>N = Natural Science</td>
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   Will this course be used to fulfill a requirement for the baccalaureate core? [ ] YES [ ] NO

   IF YES, check which core requirements it could be used to fulfill:
   
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<tbody>
<tr>
<td>O = Oral Intensive, Format 6</td>
<td>W = Writing Intensive, Format 7</td>
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</tbody>
</table>

12. COURSE REPEATABILITY:
   
   Is this course repeatable for credit? [ ] YES [X] NO

   Justification: Indicate why the course can be repeated
   (for example, the course follows a different theme each time).

   NA

   How many times may the course be repeated for credit?

   NA TIMES

   If the course can be repeated with variable credit, what is the maximum number of credit
   hours that may be earned for this course?

   NA CREDITS

13. GRADING SYSTEM:
   
   LETTER: [X] PASS/FAIL: [ ]

14. PREREQUISITES

   Senior undergraduate or graduate student standing. Interested post-doctoral fellows and others with terminal degrees are also invited to enroll.

   These will be required before the student is allowed to enroll in the course.

   RECOMMENDED

   none

   Classes, etc. that student is strongly encouraged to complete prior to this course.

15. SPECIAL RESTRICTIONS, CONDITIONS

   none

16. PROPOSED COURSE FEES

   $0

   Has a memo been submitted through your dean to the Provost & VCAS for fee approval? [Yes/No] NA

17. PREVIOUS HISTORY

   Has the course been offered as special topics or trial course previously? [Yes/No] Yes

   If yes, give semester, year, course #, etc.: Proposed as a special topics class for Fall semester 2009.

18. ESTIMATED IMPACT

   WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

   Course will fulfill funding agency requirements for responsible conduct in research training. No impact
   on budget, facilities/space other than the need for an assigned classroom.

19. LIBRARY COLLECTIONS

   Have you contacted the library collection development officer (ffkl@uaf.edu, 474-6695) with regard to the adequacy
   of library/media collections, equipment, and services available for the proposed course? If so, give date of contact
   and resolution. If not, explain why not.

   No [X] Yes [ ] Library services are adequate.

20. IMPACTS ON PROGRAMS/DEPTS

   What programs/departments will be affected by this proposed action?

21. POSITIVE AND NEGATIVE IMPACTS
proposed action.

Course will fulfill funding agency requirements for responsible conduct in research training. The intention in offering this as an LAS class is to prevent programs/departments from independently having to develop and staff such a course to fulfill funding agency requirements that apply to their graduate students but are not specifically required in any degree program.

JUSTIFICATION FOR ACTION REQUESTED
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

Course will supplement the traditional mentored approach to training future researchers and will fulfill funding agency requirements for responsible conduct in research training.

APPROVALS:

Signature, Chair, Program/Department of: 

Date 4/30/09

Signature, Chair, College/School Curriculum Council for: 

Date 4/30/09

Signature, Dean, College/School of: GRADUATE SCHOOL/INOS PROGRAM

Date

Signature of Provost (if applicable)
Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

Signature, Chair, UAF Faculty Senate Curriculum Review Committee

Date

ADDITIONAL SIGNATURES: (If required)

Signature, Chair, Program/Department of: 

Date

Signature, Chair, College/School Curriculum Council for: 

Date

Signature, Dean, College/School of: 

Date
I. INTRODUCTION

Maintaining the public trust and the respect of your fellow scientists requires a clear understanding of the basic principles under which research is conducted and reported. We trust that researchers behave properly, are objective, and that they will clearly report the facts and their interpretation of the underlying “truth”. Researchers behaving badly erode our trust and raise questions about the integrity of the research record. To succeed in today’s increasingly complex research environment every new researcher needs to develop their skill in ethical decision making. Using a case based approach this course introduces students to the basic principles and expectations that form the foundation of research integrity. Students will learn to recognize and address ethical dilemmas in research scenarios thus preparing them for situations that will invariably arise during their career.

Enrollment is open to all interested individuals with senior undergraduate or graduate student standing. Interested post-doctoral fellows and others with terminal degrees are also invited to enroll. This course fulfills National Science Foundation and National Institutes of Health requirements that funded trainees receive formal instruction in the Responsible Conduct of Research.

II. PREREQUISITES

Students must have senior undergraduate or graduate student standing in order to register for this course. No specific courses are required, however it is expected that all students are interested in some aspect of scientific or inquiry based research.

III. TEXTS

Required Textbooks:

Committee on Science, Engineering, and Public Policy (2008): On Being a Scientist: Responsible Conduct in Research , 2nd edition. National Academy Press, Washington, D.C. (This text will be provided to all enrolled students by the UAF Office of Research Integrity.)

On-line training and resources:
UAF Web-based training program in the Responsible Conduct of Research
http://www.uaf.edu/ori/RCR_Course/about.html

Federal Office of Research Integrity website http://ori.dhhs.gov/

Other resources:
Students will be directed to relevant publications, university policies and regulations, research committee documents and resources as needed throughout the course.
IV. GRADING

Each student is expected to complete the following assignments:

- Complete the UAF Web-based training program in the Responsible Conduct of Research [http://www.uaf.edu/ori/RCR_Course/about.html](http://www.uaf.edu/ori/RCR_Course/about.html). Quizzes are available through Blackboard. 25% of the final grade.
- Working individually or in small groups (to be determined based on student enrollment), students will prepare and lead an in-class discussion of a case study, notable experiment with questionable ethics, or a key paper addressing research integrity. Topic requires pre-approval by instructor. 25% of the final grade.
- Class participation (includes attendance, discussion and completion of ungraded assignments), counting for 50% of the final grade. **Class attendance is mandatory as part of your class participation. Any student missing more than three class-days without prior excused absence may, at the discretion of the instructor, forfeit all class participation points.**
- **Total Points for Semester: 100 points, Final Grade Distributed as Follows:**
  - A+ (100-98); A (97-94); A- (93-90)
  - B+ (89-87); B (86-84); B- (83-81)
  - C+ (79-77); C (76-74); C- (73-71)
  - D+ (69-67); D (66-64); D- (63-61)
  - ≤60=F

COURSE GOALS AND STUDENT LEARNING OUTCOMES

The purpose of this course is to engage researchers and research trainees in reading about, considering, and discussing the responsible conduct of science. The primary goal is to instill a fundamental understanding of the expectations associated with the conduct of research and to promote best ethical practices that will ensure the integrity of the research record. Readings, case studies, and scenarios will be used to stimulate discussion on the following topics associated with the responsible conduct of research: animal welfare, protection of human subjects in research, data management, mentoring, peer review, research misconduct, publishing, authorship, collaboration, and conflicts of interest. Additional topics may be added to address timely issues.

SUPPORT SERVICES AND DISABILITIES SERVICES

A. You should be aware that the UAF Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. I will work with the Office of Disabilities staff (located at 203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities.

B. Students having difficulties of a personal nature that interfere with normal completion of course requirements may speak with an instructor as warranted, consult a Faculty Advisor at the UAF Academic Advising Center (Gruening Building, 5th floor), or see a counselor at the UAF Center for Health and Counseling (Whitaker Building). You are advised to engage one or more of these resources as needed so as to assure personal problems to not cause academic problems leading to probation, etc.

COURSE POLICIES

A. **Attendance:** Students are expected to be on time for class, attend class regularly, and actively participate in discussion of the assigned readings, case studies, and scenarios. Students having more than three unexcused absences may, at the discretion of the instructor, forfeit all class participation points. Students who are tardy will lose participation points for that day based on how much class time they miss.

B. **Withdrawal:** As established by the university this semester, the last day for student-initiated and faculty-initiated withdrawals (W grade appears on academic record) is Friday, October 30. Students whose participation is determined by the instructor to be less than required by assignments due and attendance will be withdrawn from the course.
C. **Incomplete Grades:** Students should consult with the course instructor and/or their faculty advisor well in advance of final examination week to establish that an incomplete grade for the course is warranted. Students must have been performing minimally at "C" level, completed more than 50% of the required coursework, and have mitigating circumstances to warrant a request for an incomplete.

D. **Late Assignments:** Assignments are to be submitted when due unless previous arrangement has been made with the instructor. Due dates may be extended when there are justified/mitigating circumstances.

E. **Academic Integrity:** UAF students are expected to comply with the Student Code of Conduct (see *Class Schedule*, "Campus Policies"). Students are to avoid committing, attempting to commit, or intentionally assisting in prohibited forms of academic dishonesty, including cheating and plagiarism in the completion of course assignments. Reported violations that result in finding of academic dishonesty according to the university investigative process are subject to disciplinary sanction including warning, probation, denial of benefits, restitution, discretionary sanction, restricted access, suspension, expulsion, or revocation of a degree.

F. **Academic Integrity and On-line Training:** The content of each on-line module should be reviewed prior to attempting the associated quiz. It is permissible to view the quizzes and use them as a learning tool while you review module content. After review of module content you may retake quizzes until you achieve a passing score. However, it is inappropriate to repeatedly retake quizzes without reviewing the module content first. The purposeful subversion of the intent of the on-line course, providing quiz answers to colleagues and/or "gaming" the software is unethical and qualifies as academic dishonesty.

**SESSION STRUCTURE**

- Each session is 1 hour long
- The first session on each topic will typically consist of an instructor lecture and general discussion. You are expected to have completed the assigned readings and relevant part of the on-line training prior to each session.
- Subsequent sessions will use case studies, scenarios and mock reviews to stimulate student discussion and learning.
- The last four class sessions have been reserved for student led discussions on topics approved by the instructors.
<table>
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<tr>
<th>#</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment due</th>
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<tbody>
<tr>
<td>1</td>
<td>9/3</td>
<td>Introduction:</td>
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<td></td>
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<td>• Course goals</td>
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<td>• Overview of topics and expectations</td>
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<td>Macrina: pp. 1-16 &amp;19-31 Online: Research Misconduct</td>
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<tr>
<td>3</td>
<td>9/10</td>
<td>Research Misconduct: Case Studies</td>
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<tr>
<td>4</td>
<td>9/15</td>
<td>Conflict of Interest and Commitment: Lecture &amp; Discussion</td>
<td>Macrina: pp. 159-180 Online: Conflicts of Interest</td>
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<tr>
<td>5</td>
<td>9/17</td>
<td>Conflict of Interest and Commitment: Case Studies</td>
<td>Student led discussion topics finalized</td>
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<tr>
<td>6</td>
<td>9/22</td>
<td>Data Acquisition &amp; Management: Lecture &amp; Discussion</td>
<td>Macrina: pp. 269-289 Online: Data Management</td>
</tr>
<tr>
<td>7</td>
<td>9/24</td>
<td>Data Sharing &amp; Ownership: Lecture &amp; Discussion</td>
<td>Macrina: pp. 211-237</td>
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<tr>
<td>8</td>
<td>9/29</td>
<td>Access to unique models, cell lines, software, tissues, etc. &amp; issues associated with Material Transfers: Case Studies</td>
<td>Student led discussion topics finalized</td>
</tr>
<tr>
<td>9</td>
<td>10/1</td>
<td>Mentor / trainee responsibilities: Lecture &amp; Discussion</td>
<td>Macrina: pp. 39-54 Online: Collaboration &amp; Mentoring</td>
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<td>10</td>
<td>10/6</td>
<td>Mentor / trainee responsibilities: Case Studies</td>
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<td>12</td>
<td>10/13</td>
<td>Collaboration: Case Studies</td>
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<td>13</td>
<td>10/15</td>
<td>Authorship: Lecture &amp; Discussion</td>
<td>Macrina: pp. 61-84 Online: Authorship</td>
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<td>10/20</td>
<td>Authorship: Case Studies</td>
<td>Instructions to Authors Assignment</td>
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<td>15</td>
<td>10/22</td>
<td>Peer Review: Lecture &amp; Discussion</td>
<td>Online: Publication &amp; Peer Review</td>
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<td>Peer Review: Case Studies</td>
<td>Funding Agency &amp; Journal Instructions to Reviewers Assignment</td>
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<td>17</td>
<td>10/29</td>
<td>Publication: Lecture &amp; Discussion</td>
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<td>18</td>
<td>11/3</td>
<td>Publication: Case Studies</td>
<td>Refractions Assignment</td>
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<td>20</td>
<td>11/11</td>
<td>Animal Welfare, IACUC: Lecture &amp; Discussion</td>
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<td>21</td>
<td>11/12</td>
<td>Animal Welfare: Mock IACUC Review</td>
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<td>22</td>
<td>11/17</td>
<td>Human Subject Protections, Rules &amp; Regulations: Lecture &amp; Discussion</td>
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<td>23</td>
<td>11/19</td>
<td>Human Subject Protections, IRB: Lecture &amp; Discussion</td>
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<td>24</td>
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<td>Human Subject Protections: Mock IRB Review</td>
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<tr>
<td>25</td>
<td>11/26</td>
<td>Thanksgiving holiday</td>
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<tr>
<td>26</td>
<td>12/1</td>
<td>Student Led Discussions</td>
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<td>27</td>
<td>12/3</td>
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<td>12/8</td>
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<tr>
<td>29</td>
<td>12/10</td>
<td>Student Led Discussions</td>
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