

**BE 3290**  
**Professionalism for Biological Engineers**  
**Spring 2017**

A required course in biological engineering

**Instructor:** W. David Constant, PhD, PE, BCEE, Professor and Head, BAE  
Department

Class Hours: Friday 10:30-12:30.

Location: 229 Tureaud Hall

Office: 149 Doran, 578-3153, cell 324-9470 [dconstant@agcenter.lsu.edu](mailto:dconstant@agcenter.lsu.edu) or [hscons@lsu.edu](mailto:hscons@lsu.edu)

**Credit Hours:** 2

**Course Description:** (2 credits) Prereq: Grade of C or better in CE 2450. This required course explores ethical standards, technical communication, goal setting, professionalism and professional organizations, safety and risk, team dynamics, and proposal preparation.

**Objectives:** To provide focus in professionalism and ethics for biological engineers. NCEES code of conduct; practical applications of these codes and engineering ethics in general will be reviewed and discussed. Professional aspects of biological engineering including resume and proposal writing, professional presentations and publications, as well as real-life ethical and professional challenges will be explored. Includes development of a proposal for a senior design level project. It is “communication intensive”. Proposal development includes keeping an Individual Journal (Computational Notebook type) containing all material in the course and the proposal work as it progresses.

**Texts:** NCEES supplied reference handbook Fundamentals of Engineering Supplied Reference Handbook, NCEES© 2011 by [www.ncees.org](http://www.ncees.org), ISBN 978-1-932613-59-9

**References:** Professionalism Skills for Workplace Success, 3<sup>rd</sup> Ed., Anderson and Bolt, 2013. Ethics in Engineering, 4<sup>th</sup> Ed., Martin and Schinzinger, 2005.  
Frequent look at online cases: [nspe.org](http://nspe.org), [onlineethics.org](http://onlineethics.org), [ethics.state.la.us](http://ethics.state.la.us)

**Proposal Guidelines:** Each student will be involved in developing a proposal for an engineering project, at the level one would find in senior design. The proposal may or may not reflect your actual senior design project. A specific format and content will be followed and proposals will be presented in later class periods this semester. You must keep individual journals of this work as it progresses toward the final proposal. More details on the journals will follow. Put everything you do in this course in your journal – notes, project meetings, homework - everything.

**Student Participation:** Students will share in discussions, preparation and presentation of professionally related work throughout the course.

**Criteria for determining grade:**

Midterm	30%
Proposal/Presentation(30%)/Journal/Class Activity (10%)	40%
Final Exam	30%

**Final course grade** will be determined from the following scale:

100-97 A+  
96-93 A  
92-90 A-  
89-87 B+  
86-83 B  
82-80 B-  
79-77 C+  
76-73 C  
72-70 C-  
69-67 D+  
66-63 D  
62-60 D-  
59-0 F

**Late policy:** One letter grade reduction each late day after an assignment is due.

LSU codes shall be adhered to.

**BE 3290 Spring 2017 Course Outline**

<b>Class, Date</b>	<b>Topic (specifics may be altered at discretion of instructor)</b>
1) 1/13	Introduction, syllabus review, ethical standards
2) 1/20	Professionalism, Resumes and cover letters, tech communication
3) 1/27	Resume analysis, Interviews, Suggested Proposal Topics.
4) 2/3	Ethical Problems, Codes and Intent, Proposal RFP Review
5) 2/10	Risk and Safety/Whistleblowing/ Project Proposals
6) 2/17	Sustainability and Intellectual Property/ Team Assignments
7) 2/24	Project Proposal Discussion, Teamwork and Honesty, Research Integrity (see Martin and Schinzinger 6.1 and Ch. 7 and Anderson and Bolt, Ch. 11) Review for Midterm
8) 3/3	Catch up on Topics as Needed – Proposal Discussions
9) 3/10	<b>Midterm Exam</b>
10) 3/17	Advice from Professionals/Exam Review
11) 3/24	<b>Prelim Proposals Due</b>
12) 3/31	Proposal Prep – Prelim Proposal Review
13) 4/7	Ready for Work – ABET Perspective – e-comm, memos, linkedin (A & B, Ch. 9 and 10)
14) 4/14	Spring Break
15) 4/21	Student Presentations – All Project Proposals Due
16) 4/28	Student Presentations – Continue as needed
17) 5/5	<b>Final Exam</b> – Turn in Journal at 149 E.B.Doran