

**E 101: Introduction to Engineering & Problem Solving**  
**College of Engineering**  
**Fall 2008 – Sections 002 and 003**

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**Instructor:** Dr. William F. Hunt, Assistant Professor & Extension Specialist, BAE  
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**Office Hours:** Mondays, between Sections 001 and 002 and up to 30 minutes after Sec 002.  
 Also, by appointment. Please email 1 day in advance.

**Class Meetings:** 341 Daniels Hall: 10:15a - 12:05p Monday (**Section 002**)  
 341 Daniels Hall: 12:25p - 2:15p Monday (**Section 003**)

**Engineering Ambassador:**

Highly qualified undergraduate engineering students, **Engineering Ambassadors**, will assist the instructors throughout all aspects of the course.

**Section 002:**

Name: Chrissy Johnsen

Email: cajohnse@ncsu.edu

**Section 003:**

Name: Verd Cunningham

Email: vacunnin@ncsu.edu

**Course Prerequisites/Restrictive Statements**

This course is open only to first year students in the College of Engineering.

**Goals and Objectives of the Course**

This course is designed to introduce students to the field of Engineering. An objective will be to integrate teamwork, problem solving, and verbal communication skills into a design project within the course in such a way that these skills become the foundation of a successful engineering career. Early understanding of these skills will assist students throughout their undergraduate experience and beyond.

**Multimedia Text** (*All texts will be used throughout the semester*)

***Engineering Student Handbook:***

[ESH] Koehler, B.D., Robbins, M.C., & Lavelle, J.P. *Engineering Student Handbook 2006*, Tavenner Publishing Co. (2006).

***Optional Course Text***

[TEXT] *Introduction to Engineering & Problem Solving*

***Course Website:***

[WEB] *Introduction to Engineering & Problem Solving*, <http://courses.ncsu.edu/>

***College of Engineering -- Undergraduate Student Central:***

[COE] *Undergraduate Student Central:* <http://www.engr.ncsu.edu/>

## E101 Student Learning Outcomes

By the end of the semester, students will be able to:

- describe specifics of the various engineering disciplines and about careers in engineering,
- identify and locate resources and opportunities on campus that assist in achieving unique educational goals,
- work in teams to solve and present engineering problems,
- apply a structured design process to develop a working model,
- understand key concepts of engineering ethics
- present engineering problems and solutions in multimedia presentation modes.

## Class Attendance

Full participation in class is expected of all students. In accordance with NC State University policy instructors in 100- and 200-level courses must keep a record of attendance throughout the semester. **Attendance and promptness are expected.** One absence and/or tardiness will be permitted. *Each additional absence will result in a five-percentage point deduction from the final course grade. Each additional tardy will result in a two-percentage point deduction from the final course grade.* **Attendance at Freshman Engineering Design Day (Tuesday, November 21) and at the College Welcome (Tuesday, September 5) is mandatory.** Also attendance at two Departmental Information Sessions (see below), and one Cooperative Education (Co-Op) session is mandatory.

For your convenience, here is a checklist:

- |   |  |
|---|--|
| <input type="checkbox"/> 8 <sup>th</sup> Annual College Welcome | <input type="checkbox"/> Two Departmental Information Sessions |
| <input type="checkbox"/> Freshman Engineering Design Day        | <input type="checkbox"/> Cooperative Education (Co-Op) Session |

Please see [http://www.ncsu.edu/provost/academic\\_regulations/attend/reg.htm](http://www.ncsu.edu/provost/academic_regulations/attend/reg.htm) for NC State University attendance regulations including a description of excused absences.

## College of Engineering Welcome

The 8<sup>th</sup> Annual *College Welcome* was held **Thursday, August 21, 2008 at 6:00 PM at the Jane S. McKimmon Center**. This event will introduce you to the College of Engineering, and will spotlight a high profile NC State Engineering Alum who will speak during this evening. *Attendance at this event is mandatory.* You will receive a program at the beginning of the event that will have a section you must fill out, tear off, and return to your instructor.

**Note:** If you have a documented class conflict, see your instructor for a possible make-up assignment.

## Departmental Information Sessions

Each department in the College of Engineering will host information sessions during the week in which readings in the Engineering Student Handbook [ESH] are due. Please see the course website for times & locations. Attendance at two of the Information Sessions is mandatory.

## Cooperative Education Session

Throughout your engineering education it is of paramount concern that you gain practical experience. Cooperative Education (Co-Op) is an outstanding opportunity to do just that. You are required to attend one session anytime during the semester. Please see the course website for times & locations.

**Note:** There is no make-up assignment for an absence.

**Surveys**

- Students will complete a *Teamwork / Peer Review Rubric* at the end of the semester. This instrument will only be used as a tool for determining grade inequities among team members.
- During the last week of class each student will complete a *Course Evaluation*.

**Grading**

This course will follow NC State University Policy on grading. Late assignments will not be accepted unless previously approved. Questions about grades must be made within one week of the return of the assignment.

<b>FEDD Design Project (Team)</b>	<b>35%</b>
<i>Final Team Presentation</i>	25%
<i>Design Day Participation &amp; Attendance</i>	5%
<i>FEDD Team Contract</i>	5%
<b>HW #1: Resume (Individual)</b>	<b>15%</b>
<b>HW #2: Degree Plan (Individual)</b>	<b>15%</b>
<b>Team Presentation</b>	<b>15%</b>
<b>Midterm / Final Exam</b>	<b>20%</b>
❑ <b>8<sup>th</sup> Annual College Welcome</b>	<i>(see Class Attendance)</i>
❑ <b>Departmental Information Sessions (2)</b>	<i>(see Class Attendance)</i>
❑ <b>Cooperative Education (Co-Op) Session</b>	<i>(see Class Attendance)</i>

**FEDD Design Project**

A design project with content from various engineering disciplines will be completed by the semester end and presented at the 9<sup>th</sup> Annual *Freshman Engineering Design Day* to be held during the week before Thanksgiving (**Tuesday, November 25, 2008**) at the **McKimmon Center**.

*Note: A list of these projects is available on the E 101 web page.*

**HW #1: Resume, HW #2: Degree Plan, & Team Presentation**

See the E101 course website for information regarding these assignments.

**Grading Scale**

A+	>98	B+	87 – 89.9	C+	77 – 79.9	D+	67 – 69.9	F	<60
A	93 – 97.9	B	83 – 86.9	C	73 – 76.9	D	63 – 66.9		
A-	90 – 92.9	B-	80 – 82.9	C-	70 – 72.9	D-	60 – 62.9		

## Recommended Extracurricular Activities

### *Engineering Career Fair*

September 30 & October 1                      9:30 AM - 4:00 PM                      McKimmon Center  
Sponsored by the College of Engineering and the Engineers' Council.

### *Leadership Development Series*

The College of Engineering and the Engineers' Council have sponsored a college-wide membership to the Leadership Development Series. This enables all students, faculty and staff to attend LDS workshops **free of charge**. You may even pursue a leadership certificate. View a list of the workshops, and sign up at <http://csleps.ncsu.edu/>.

## University Policies

All NC State University policies can be found at the following web page:

[http://www.ncsu.edu/provost/academic\\_policies/index.html](http://www.ncsu.edu/provost/academic_policies/index.html).

Three of these policies are reprinted below for your convenience:

### *Progress Toward Undergraduate Degree Completion*

The objective of this regulation is to encourage timely matriculation into degree programs and reasonable progress toward graduation. For more information regarding this policy, we recommend that you review this website: [http://www.ncsu.edu/provost/academic\\_regulations/ProgressReg.html](http://www.ncsu.edu/provost/academic_regulations/ProgressReg.html)

This regulation applies to all NC State undergraduate degree-seeking students who entered either as first-time freshmen or transfers beginning fall semester 2003.

### *Instructor's Academic Integrity Statement*

1. North Carolina State University requires that all students abide by the Code of Student Conduct. For a complete statement of this policy and consequences of violation of this Code, please see [http://www2.ncsu.edu/prr/student\\_services/student\\_conduct/POL445.00.1.htm](http://www2.ncsu.edu/prr/student_services/student_conduct/POL445.00.1.htm)
2. The students and faculty of NC State University believe that the willingness of students to affirm and adhere to the essential values of honesty and integrity in all their academic endeavors is exemplified in the Honor Pledge: **I have neither given nor received unauthorized aid on this test or assignment.** It is this instructor's understanding and expectation that the student's signature on any test or assignment means that the student neither gave nor received unauthorized aid.
3. The instructor will not tolerate plagiarism or cheating. Violators will be subject to sanctions as described in the Code of Student Conduct.

### *NC State Policy on Working with Students with Disabilities*

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653.

[http://www.ncsu.edu/provost/offices/affirm\\_action/dss/](http://www.ncsu.edu/provost/offices/affirm_action/dss/)

For more information on NC State's policy on working with students with disabilities, please see

[http://www.ncsu.edu/provost/hat/current/appendix/appen\\_k.html](http://www.ncsu.edu/provost/hat/current/appendix/appen_k.html)