# OGLALA LAKOTA COLLEGE

## Course Syllabus for Introduction to Engineering II

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## **Course Description:**

This course is designed to give students the opportunity to learn how to solve engineering analysis and design problems through community focused service learning. Students will develop computational skills, sharpen communication skills, and be exposed to professional development in the form of team building, technology tools, and project management. In addition, students will have the opportunity to learn from professional engineers, scientists, and stakeholders through project-based interaction. Prerequisites:

#### **Prerequisites:**

Math 154 or Engr 101

#### **Course Overview:**

Introduction to Engineering course introduces engineering through solving a community-based engineering problem and through guest lecturers to discuss ethics, project-management, and engineering disciplines.

#### **Course Educational Objective:**

The objectives of this course are to provide students with skills to solve basic engineering analysis and design problems, express project results, to work on a team, and to discuss professional ethics.

#### **Course Learning Outcomes:**

Upon completion of this course the student should be able to:

- 1. Complete a small-scale engineering project
- 2. Build team-building skills
- 3. Collect and analyze appropriate data
- 4. Comprehend professional ethical values
- 5. Communicate project results to a general audience

#### **Required Textbook:**

None

#### **Descriptive Reading Load:**

There is no formal reading load for this course.

**Types and Amounts of Writing Expected:** Students in this course will complete a poster about their design problem.

Homework is an opportunity to practice professionalism. All homework involving writing should be completed in paragraph form, which consists of: i) a topic sentence; ii) 3-5 body sentences; and iii) a conclusion or transition sentence. Professional ethics requires referencing the author of any text or pictures that are used in assignments. Plagiarism (i.e. passing off another author's work off as your own) will not be tolerated. Please refer to the Oglala Lakota College Student Handbook for the official policy on plagiarism. Please contact the Instructor if you have questions on plagiarism, or on how to site another person's work. Suspected cases of plagiarism or academic dishonesty will be referred to the OLC Administration.

## Lakota Perspective:

This course stresses **Wolakotakiciapi** or "learning Lakota ways of life in the community". Participants in this course are expected to practice respect for each other, the instructor, and for all living and natural things used during this course.

## **Course Requirements:**

The homework will utilize the Moodle content server via the Internet. As this course is an introductory course, we will use class time to teach these skills over the course of the semester. All homework this semester will be submitted via the Moodle content server.

## Assignments:

We will not have formal weekly assignments. However, weekly progress on a final project is expected.

Grade Component	Final Grade
Weekly discussion/reflection 60%	90-100% A
Final Project 40%	80-89% B
	70-79% C
	60-69% D
	0-59% F

#### **Course Grading:**

## **Homework Policy:**

All homework needs to be submitted by the end of the semester.

## **Special Accommodations:**

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please inform me and we will make appropriate arrangements with the Office of Disability Services.

## Tardiness (From OLC Policy Handbook):

In formulating this policy it is understood that unique problems exist for both students and faculty due to the decentralized nature of OLC. Since classes meet only once per week, it is important that they be held – even if they begin late.

Generally speaking, if an instructor is going to be late getting to a college center for a class, the center staff should always be notified. The following policy applies to cases where this has not

been done:

A student shall be considered tardy for class, if he/she arrives late for class, but during the first hour of the class. A student arriving later than this, may be marked absent. This policy will not interfere with the instructor's prerogative to grade for class participation.

If an instructor is late for a class, students must wait for one-half hour. After this time, the class will be considered cancelled for that week and must be made up.

In the event that no students appear for class at the scheduled starting time, the instructor should wait at least one-half hour before deciding to cancel the class.

All missed classes must be made up.

## Attendance (From Policy Handbook):

Students are required to attend classes regularly. Instructors will submit attendance on-line weekly to the end of the semester.

If a student wishes to be excused from a class, it is the student's responsibility to clear the absence with the instructor. At that time the student must arrange for a make-up assignment. However, an excused absence is the same as an absence until the student has completed work equivalent to being in class. Once the make up assignment is completed, the instructor will then change the absent to present.

A student may be dropped from a course after three consecutive absences and will be dropped by the Registrar after five total absences.

There are NO reinstatements and No exceptions for students who are dropped for five absences.

**Course Philosophy:** You are not studying and learning for the instructor, but for yourself. Grades are important for your academic career; nevertheless, your professional life really begins after you graduate. A deeper understanding of science and engineering will help you not only in your professional career, but also to understand and appreciate your surroundings and life itself.

This is a foundational course in engineering. This is your chance to start build onto your existing knowledge and excel in it. But it is up to you. You have to invest <u>your</u> time. The instructor will work to provide time within the allotted class period and laboratory time outside of the class when students will have the opportunity to work on homework in a collaborative fashion.

## Tips to Succeed in this Course:

Work closely with your mentor on your engineering project. Ask questions.

Actively take part in the class activities. This will help you solve problems in your homework in a collaborative fashion.

<u>Note:</u> The instructor reserves the right to make changes. Students will be informed of any such change.