**Freshman Orientation to Computer Science and Engineering**

**CSCE 10 – Pass/No Pass Only – 0 Credit Hours**

Sections 001 and 002

Alternately

**CSCE 196 – Graded or Pass/No Pass – 1 Credit Hour**

Sections 001 and 002

Fall 2016 (rev. 9/9/16)

**Coordinator**

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For calendar go to <http://cse.unl.edu/~riedesel> and follow link to appointments; drop in or email for confirmation of meeting time

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**Course Materials**

Syllabus and other materials will be posted at either <http://cse.unl.edu/~riedesel/pub/cse10> or

on Piazza – <http://piazza.com/unl/fall2016/csce10/home>

**Catalog Description**

CSCE 10 - *Introduction to CSE:*Required pass/no pass course designed to help incoming first-year CSE students in their transition into the University of Nebraska-Lincoln and the Computer Science and Engineering department. The course introduces various departmental resources and policies, explores possible career paths, fields, and opportunities available to a computer scientist or computer engineer. Assignments may include attending department orientations and lectures, a student organization meeting, and on-campus activities including Career Fair, E-Week, and Research Fair.

**Course Organization**

Class will be held weekly from 6:30-7:20pm on Wednesdays and Thursdays throughout the semester. An expected 290 students will be enrolled, approximately split 145 - 145 Wednesday – Thursday respectively. The room, Avery 115, is quite large and the sections will be handled the same, so students are welcome to switch back and forth, if space permits. Attendance rosters will be availing for initialing during each session.

This is not a typical lecture course. No text is required. Activities will be experiential in nature and include tours, interviews, events, and projects, generally with follow-up reports and essays for submission and grading. Class sessions will include guest speakers and panels, especially panels of students who will share with you their experiences at UNL, in organizations, work, research, etc. These sessions will be informal and interactive.

Note that the 0 credit hour makes the course tuition free, but the amount of work to be expected will be closer to that of a 1 credit hour course. Assuming you reasonably pace the activities, you can plan on an hour for class attendance and another hour or two for an activity each week.

**Grading**

There will be no exams and nothing during finals week. There will be activities that involve attendance at events outside the regular class time. In order to pass, students must accumulate sufficient points in three different categories:

1. *Attendance:* Attendance is worth 1 point for each session – a minimum of 12 points must be earned.
2. *Outside-class Required Activities:* These two required activities are worth 1 point each.
3. *Foundation:* Foundation Activities are worth 1 point each – At least 5 points must be earned.
4. *Broadening:* Broadening Activities are worth 1 point each – At least 5 points must be earned.

Moreover, a minimum total of 27 points overall must be earned. (Doing the minimum of each of the categories earns only 24 of the required 27 points!)

For activities that involve handing in reports and essays, submission will be electronic. Deadlines for the most part will be floating, with work due anytime before midnight Wednesday of dead week, December 7 (official last day for any UNL homework to be due). However, because of the large class size and limited TA grading capacity, the pace of submissions will be restricted beginning midnight Sunday of Fall Break (no restrictions through October 16). Until that time, the number of submissions is not limited.

Specifically, at most one submission will be accepted on the last week with guaranteed grading (dead week – December 5-7), at most two submissions the last two weeks, at most three submissions the last three weeks, etc. with at most eight submissions the last eight weeks (beginning October 17). A week is deemed to begin at midnight Sunday. For example, submitting one per week is fine. Submitting four the week of Fall Break and another four by midnight November 12 is fine. Basically, the number of remaining submissions should not be more than the number of remaining weeks. If TAs have sufficient time to grade more, they will be allowed to do so, but no guarantees are being made that that will happen.

Activity report submissions deemed inadequate to earn a point may be returned, revised, and resubmitted, with the original submission date still valid if the work was deemed by the grader to at least be a sincere effort.

Double dipping (using the same activity for multiple points) is not permitted.

As part of earning the 27 overall points, students will be required to participate in two outside-class activities. *Each activity has a firm deadline that cannot be waived (see “Important Dates” below).* For each activity, you will be asked to complete a survey. The survey will include a set of demographics questions, a set of questions pertaining to computer science and software engineering concepts, and questions regarding your attitudes towards computing. You will also be asked for permission to release your course grade in CSCE 155A, CSCE 155E, CSCE 155H, CSCE 155N, CSCE 155T, RIAK 183 or SOFT 160. This information will be used in the study as a measure of student learning.

Each survey will take approximately 45-50 minutes. You will have the option of taking the survey a third time, at the end of the semester, to earn credit towards your Foundation Activities. Although you are required to participate in the first two surveys in order to pass this course, you may opt out of having your answers used for this research project. Should you choose to participate in the study, the results of the surveys, i.e., the “correctness” of your answers, will in no way affect your course grade. Furthermore, you will be asked to enter the last four digits of your NU ID so that the results from each survey can be linked. This data will be coded to anonymize your responses and ensure the confidentiality of your answers.

The purpose of the surveys is two-fold:

1. Provide data for a research study comparing student learning, retention and attitudes in the new first year software engineering courses with student learning and attitudes in traditional first year computer science core courses. This data will be used to help evaluate and improve computer science and software engineering education at UNL. Your participation in the research study is voluntary. You can refuse to participate or withdraw from the study at any time without harming your relationship with the researchers of the University of Nebraska-Lincoln, or in any way receive a penalty or loss of benefits to which you are otherwise entitled.

2. Introduce students to the UNL Exam Commons in the Digital Learning Center on the first floor of Love Library North (<http://its.unl.edu/dlc>). By taking the surveys in the Exam Commons you will have two opportunities to become familiar with scheduling a time slot to use the facility, and to practice working in the Exam Commons without the pressure of an exam grade.

You may also benefit from these surveys through additional exposure to topics related to software development software engineering.

You may ask questions concerning the research study or have questions answered before agreeing to participate in or during the study by contacting the investigators: Dr. Suzette Person (402.472.5040, sperson@cse.unl.edu) or Dr. Gwen Nugent (402.472.1009, gnugent1@unl.edu).

Expectations are for students to maintain high integrity and to present themselves in a professional manner. Dishonesty is not tolerated (see Academic Integrity section in this syllabus). In the classroom, students will be attentive and courteous to the many speakers and panelists who will be presenting. Failure will result in a request to leave the session and loss of that attendance point.

**Schedule**

Some sessions will be scheduled around availability of guest speakers and timing of special events such as the Fall Career Fair, the local ACM Programming Contest, and Priority Registration for spring semester. These may require modifications to the preliminary schedule.

**Important Dates**

* *First Sessions:* Wednesday and Thursday August 24 and 25
* *Outside-class Required Activity #1:* Take survey in Exam Commons between August 25th 8:00am and September 2nd 5:00pm.**DUE 5:00pm Friday September 2nd. Note that you will need to reserve a time slot before you can take the survey (Go to** <https://dlc-reserve.unl.edu> **to reserve a time slot).**
* *Engineering Involvement Fair:* Tuesday, September 6, 4:30 – 7:30 pm, Union Ballroom in the Student Union. Also see <http://events.unl.edu/engineering/2016/09/06/113181/>
* See also <http://engineering.unl.edu/events/> and <http://cas.unl.edu/get-involved> for opportunities in Engineering College and Arts & Sciences College respectively.
* *Husker Dialogues:* Tuesday, September 13, 5:30-6:45 or 7:30-8:45 pm, Lied Center; see also <http://diversity.unl.edu/husker-dialogues>
* *Education Abroad Fair:* Tuesday September 20, 11:00 am – 2:00 pm, Nebraska Union; also see <http://educationabroad.unl.edu>
* *Engineering Study Abroad Fair:* Wednesday, September 20, 3:30 – 5:00 pm, Othmer Hall; also see <http://engineering.unl.edu/current-students/education-abroad-lincoln/>
* *Fall Career Fair:*Thursday, September 29, 1:00 pm – 5:00 pm at the Pinnacle Bank Arena. Also see <http://www.unl.edu/careers/career-services-events-calendar>
* *Outside-class Required Activity 21:* Take survey in Exam Commons between October 5th 8:00am and October 14th 5:00pm.**DUE 5:00pm Friday October 14th. Note that you will need to reserve a time slot before you can take the survey (Go to** <https://dlc-reserve.unl.edu> **to reserve a time slot).**
* *Priority Registration for Spring:* Monday October 24 – Tuesday November 8, freshmen will have Friday November 4 – Tuesday November 8.

**Academic Integrity Policy**

Everyone in the Department is expected to understand and abide by our policy. This will be a topic of discussion very early in the course. See <http://cse.unl.edu/ugrad/resources/academic_integrity.php> for the document.

**Students with Disabilities**

Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY

**Class Sessions** *(preliminary and not necessarily in order – attend at least 12 of 16 scheduled)*

1. *Introductions* (8/23-24) – Syllabus and Expectations, Faculty & Pizza following
2. *We Did It, You Can Too!* (8/31-9/1) – Student Panel to discuss first year experiences: work load, study skills, finding resources, group work, integrity, informal education opportunities
3. *Ada Lovelace: First Programmer* (9/7-8) – Modern computer conceived and programmed in the 1840’s
4. *Diversity –* Discussion following up Tuesday’s “Husker Dialogues”
5. *Student Organizations –* Panel of organization leaders discuss activities, opportunities for and benefits of involvement
6. *Study Abroad* – Panel to discuss opportunities for study abroad
7. *Careers* – Career Services representative to discuss preparing for the Fall Career Fair
8. *Employment* – Employer Panel to discuss preparation for internships and eventual employment
9. *Internships* – Student Panel to share experiences in finding internships; sharing of final reports for CSCE 491 *Internship for Credit*
10. *Support Services* – Panel discussing on-campus assistance for counseling, disabilities, appeals, and other resources
11. *Professional Development –* Why you are here, Where you are going, Integrity, Character
12. *Undergraduate Research* – Student Panel to discuss involvement in UCARE, working in our research labs, and relevance to graduate studies
13. *Opportunities* – Panel of recent graduates to discuss how their choices led them to where they are today
14. *Involvement* – Panel to discuss becoming an Undergraduate TA (UTA), independent learning, ACM Programming Contest, Entrepreneurship, faculty committees, and more
15. *Faculty Presentation -* TBD
16. *Debriefings and Course Assessment* – Discussion, Pizza

**Outside-class Required Activities** (both are required)

1. Take Survey #1 in Exam commons between August 25th 8:00am and September 2nd 5:00pm. **Note that you will need to reserve a time slot before you can take the survey (Go to** <https://dlc-reserve.unl.edu> **to reserve a time slot).**
2. Take Survey #2 in Exam commons between October 5th 8:00am and October 14th 5:00pm. **Note that you will need to reserve a time slot before you can take the survey (Go to** <https://dlc-reserve.unl.edu> **to reserve a time slot).**

**Foundation Activities** (do at least 5)

1. Take Survey #3 in Exam commons between November 30th 8:00am and December 10th 5:00pm. **Note that you will need to reserve a time slot before you can take the survey (Go to** <https://dlc-reserve.unl.edu> **to reserve a time slot).**
2. *Write an essay*: “What the Department’s Academic Integrity Policy Means to Me”. (See <http://cse.unl.edu/academic-integrity-policy>) The policy is fairly lengthy in order to cover many complexities, nuances, and rationales. Throughout your time here, it will be assumed that you understand the policy.
3. Learn a computing technology outside the regular classroom – *Report on what and how you learned, include a demonstration project*. This could be picking up SQL using MySQL, JavaScript, LaTeX text formatting, using a game engine, programming Arduinos, etc. The work could be collaborative. Your report will likely include a URL or GitHub account with a project demonstrating what you learned. Being able to learn things on your own and having the drive to do it is invaluable for obtaining good jobs.
4. Visit with at least 3 employers at the Fall Career Fair – *Report on your findings.* (See <http://careers.unl.edu/fall-career-fair-2016>) Starting now while you are freshmen is highly advised. Do it BEFORE you have to.
5. Visit or join tours of at least two research labs in the department *(attendance taken)*. Discover some of the really neat research you can get involved in. (See <http://cse.unl.edu/research-innovation>) Report on it.
6. *Prepare a weekly work schedule* and follow it for at least 3 weeks. Document it with a log, printout, etc. Some student benefit greatly by having a schedule lain out.
7. *Develop a plan of studies to complete your college education*. Having some idea of what you will be doing can help guide you with priorities and scheduling. Think through possible minors, internships, study abroad, availability of technical electives. Consider using the online tool (see <http://cse.unl.edu/undergraduate-advising-center>) Report on it.
8. *Prepare a resume.* Have it reviewed and revised, and posted on Husker Hire Link (see <http://careers.unl.edu/hhl-login>). Whether or not you intend to use it immediately, now is the time to get started.
9. *Prepare a statement of purpose or personal profile.* Why are you here? What have you done? Where do you hope to go? What do you really want to accomplish in life? Build your profile on LinkedIn (<https://www.linkedin.com>) – see <http://blog.hubspot.com/blog/tabid/6307/bid/23454/The-Ultimate-Cheat-Sheet-for-Mastering-LinkedIn.aspx#sm.001kd1bjd14ohds7qug10wyacsopj> and other sites for ideas.
10. *Prepare a plan for a study abroad experience.* Visit with the Education Abroad folks in 110 Love South, see <http://educationabroad.unl.edu> and attend the Study Abroad fairs. Put together a plan that makes sense for you.
11. Visit with an advisor to plan for spring semester *(Sign in when you come in for priority registration advising)*. Even if you think you know exactly what is coming up for you, do check in – there may be opportunities you have not thought of! (Note – this activity does not require a report and is not subject to the last eight week restriction of one per week.)

**Broadening Activities** (do at least 5)

1. Get involved in a student organization or program and/or go to the Engineering Student Organization Fair on Tuesday Sept 6 from 4:30-7:30 in the Union Ballroom. *Report on it*.
2. Attend an E.N. Thompson Forum (or comparable) event. Free tickets at <http://tickets.liedcenter.org/single/EventListing.aspx?promo=1672> and see <http://enthompson.unl.edu> for more information. *Report on it.*
3. Attend an international students event such as a dinner, program, etc. (see <http://involved.unl.edu/si-events> for ideas) – *Report on it*.
4. Complete a computing course project that goes beyond the minimum requirements for an A plus any designated extra credit work – *Submit documentation*.
5. Attend a Lied or similar professional fine arts event or exhibit (see <http://www.liedcenter.org>, <http://www.sheldonartgallery.org> and <http://arts.unl.edu/music/school-music-calendar>) – *Report on it.*
6. Take a graded exam/homework to the instructor and point out where you feel you have been awarded too much credit – *Document it. (How did it feel? What was the reaction?)*
7. Attend a sports event for a sport that is new to you (see <http://www.huskers.com> and <http://crec.unl.edu/sportclubs>) – *Report on it*.
8. *Write an essay*: “How Can I Use Computing to Improve My World”.
9. Practice and compete in the local ACM Programming Contest (see <http://ncna-region.unl.edu>, local site still under construction, see invitation on our Piazza site, the coach is Jeff Ifland jifland@cse.unl.edu - often find him outside my office) – *attendance taken*.
10. Team up for a project with someone who differs from you significantly in ethnic/national origin/primary language/religion, and learn something about him/her – *Report on it*.
11. Do a volunteer project (computer-related) to benefit some philanthropic cause – *Report on it.*
12. Participate in the “Certificate in Civic Engagement” – (go to room 222 in the Nebraska Union for information and application – see <http://engage.unl.edu>) – *Document it.*
13. Attend Husker Dialogues for First Year Students on Tuesday, September 13th. *Husker Dialogues:* Tuesday, September 13, 5:30-6:45 or 7:30-8:45 pm, Lied Center; see also <http://diversity.unl.edu/husker-dialogues>

**Submission of Activities Reports**

Most reports/essays/documentations will be a couple pages in length. Begin each with your name and identify the activity (such as “Broadening Activity #7: Attended a Curling Match”). No special formatting or format is required – Word or PDF are fine. In some cases it may be more interesting to document your activity or present your essay by producing a YouTube video. In your written submission to the electronic handin, simply provide brief introduction, a link to your video, and include your responses to the questions below. At the end of each report answer the following four questions:

1. What do you see is the intended purpose of the activity?
2. Did you experience this purpose while doing the activity? Explain.
3. Do you see this as a valid and significant purpose? Explain.
4. What modifications would you suggest (if any) for next year’s class?

**Other Items:**

* The CSE Department has an anonymous contact form that you may use to voice your concerns about any problems in the course or department if you do not wish to be identified. See <http://cse.unl.edu/contact-form>.
* It is CSE Department policy that all students in CSE courses are expected to regularly check their email so they do not miss important announcements.
* TA office hours are in the Student Resource Center (SRC) which is at Avery 13A. See <http://cse.unl.edu/src>
* This syllabus may be updated and expanded as the semester progresses.