

Ultrasonics II Lab

NDT - 1214 101

Course Student Learning Outcomes

- Complete calibration and performance tests.
- Complete a procedure based on a specific code.
- Understand and evaluate relevant and nonrelevant discontinuities.
- Complete the appropriate evaluation form and identify the location and size of all rejectable discontinuities.
- Accept/Reject components based on a specific procedure.
- Demonstrate effective problem solving.
- Demonstrate higher-order skills such as analysis, synthesis, and evaluation.
- Apply scientific methods to the inquiry process.

College Wide Student Learning Outcomes

- Develop critical literacies - reading, writing, speaking, listening - that they apply in various contexts.
- Understand and use the elements of effective communication in interpersonal, small group, and mass settings.
- Approach practical problems by choosing and applying appropriate mathematical techniques.
- Use and interpret information represented as data, graphs, tables, and schematics in a variety of disciplines.

- Apply mathematical theory, concepts and methods of inquiry appropriate to program specific problems.
- Demonstrate effective problem solving.
- Demonstrate higher-order skills such as analysis, synthesis, and evaluation.
- Apply scientific methods to the inquiry process.

Course Prerequisites

Concurrent with NDT 1213

Transfer/Certification/Licensure/Employment Information

National Standards CP-105, CP-189, ASNT-TC-1A, NAS 410.

Engagement Plan

Office WPC 157E

Preferred contact is by email – Use Canvas's email system for this course. Email are typically responded to within 24 hours. Emails received on Friday after 3:00 pm or holidays will be responded to by noon the next business day.

801-957-2159 (Voice mail available for messages)

Office hours: Available by appointment.

In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.

Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.

Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

Keys for Success (how to succeed in the course)

Students will learn advanced applications of ultrasonic inspection. Emphasis is placed on familiarizing students with the components and controls of ultrasonic equipment and calibration.

Follow the outline of Skillsshops.

<https://www.slcc.edu/seea/programs/workshops-calendar.aspx>

Skillshops are designed to help you develop the habits that are necessary for success in college.

Topics address issues that impact you both in and out of the classroom an every session involves hands-on activities, giving you the opportunity to apply the material in practical ways with help from Orientation & Student Success staff.

Course Content Advisory

Not applicable

Additional Materials

- Ruler (preferably 1/10th scale and metric)
- Calculator
- Grease Pencil or Colored Pencils

Brief Description of Assignments/Exams

Assignments will include the training and operation of multiple ultrasonic machines using transverse/ shear measurements and flaw detection. With specific emphasis on AWS standard of inspection.

Equipment covers many of the common ultrasonic machines used in the industry.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Introduce Yourself	Discussion	0

Grading Scale

Grading Scale and Criteria

A = 94-100 %	B- = <84-80 %	D+ = <70-67 %
A- = <94-90 %	C+ = <80-77 %	D = <67-64 %
B+ = <90-87 %	C = <77-74 %	D- = <64-61 %
B = <87-84 %	C- = <74-70 %	E = <61-0 %

Individual assignments (labs) will be scored based on the following:

- 100 % Exemplary. All aspects of the work completed above the minimum levels specified. Well written. Free of grammatical error. Evidence of careful analysis.
- 90 % Very good. One or more of the above elements is missing or lesser quality.
- 80% Well done. Two or more of the above elements is missing or of lesser quality.
- 70 % Acceptable. Task was completed at the minimum levels specified. Most aspects of the assignment were completed. Little or no evidence of careful analysis or application.
- 60% Not acceptable. Many aspects of the assignment are missing or completed at sub-standard level

Late Work

One of the best ways to be successful in this course is to submit all assignments by their due date. In the event that you will not be able to meet a due date, contact your instructor as soon as possible. If you are unable to contact the instructor ahead of the due date, you will be expected to provide documentation such as a doctors note to be allowed to turn in an assignment late.

Incomplete:

A grade of Incomplete cannot be given in this class. Students who are unable to complete the coursework for any reason (including extended illness) are advised to withdraw. If you stop attending class and do not withdraw by the college deadline you will receive a failing grade (E). You must officially withdraw to receive a withdrawal grade (W). The W grade is not used to compute your GPA but may affect your eligibility for financial aid.

Extra Credit:

Extra credit can be issued on case by case basis.

Academic Integrity

Code of Student Rights and Responsibilities can be located at:

https://www.slcc.edu/policies/policies/student_affairs/8.1.050.aspx

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements.

By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)

Additional Policies

None