

Ultrasonics 1 Theory

NDT - 1114 101

Course 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

Corequisite: NDT 1115

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.

Keys for Success (how to succeed in the course)

This course fulfills the Ultrasonics I requirement for the Nondestructive Testing Program at Salt Lake Community College. It is designed not only to teach the information and skills required by the discipline, but also to develop vital workplace skills and to teach strategies and skills that can be used for life-long learning. General Education courses teach basic skills as well as broaden a student's knowledge of a wide range of subjects. Education is much more than the acquisition of facts; it is being able to use information in meaningful ways in order to enrich one's life.

While the subject of each course is important and useful, we become truly educated through making connections of such varied information with the different methods of organizing human experience that are practiced by different disciplines. Therefore, this course, when combined with other General Education courses, will enable you to develop broader perspectives and deeper understandings of your community and the world, as well as challenge previously held assumptions about the world and its inhabitants.

How This Course Works

For this three (3) credit-hour course students are expected to spend up to 4+ hours a week completing course activities.

This course has weekly due dates.

As a student you can expect this course to challenge and engage you as a learner. You will be expected to review chapters, engage in class discussions, complete assignments and quizzes as required, and succeed as a student in this course.

Additional Materials

Required Materials and Technology

- Text book of this course will be provided for this semester free of charge.
- Computer, all the course materials is computer based. Computer labs are also provided at all SLCC college campuses.

- In class you will need paper, pencils/ pen, and a scientific calculator.

Brief Description of Assignments/Exams

Assignments Approximately 110 points

One of your first assignments is to complete the syllabus quiz. It is important that you familiarize yourself with the syllabus (this document) and all of the information in the Course Orientation module. This quiz is multiple/choice, true/false and must be taken as many times as necessary to receive a perfect score. This will ensure that course expectations are clear.

Quizzes will consist of the chapter material covered in class and standards in our industry. Quizzes will typically be given on Wednesday at the end of class.

You may retake, up to 3 quizzes where you scored less than 70%. Quiz make up will be given the last week of class, you will need to arrange the make up quiz with the instructor. The highest score a student can receive on a retest will be 70%

Final Approximately 60 points

A comprehensive final test will be given at the scheduled date and time. The final will consist of chapters covered during this first term.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	ASNT Vegas Conference	Discussion	0
	Chapter 1 Review	Quiz	0
	Chapter 3 Quiz	Assignment	18
	Chapter 3 Review	Quiz	0

Due Date	Assignment Name	Assignment Type	Points
	Extra Credit	Assignment	0
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
9/5/25	Syllabus Quiz	Quiz	10
9/8/25	Chapter 1 Quiz	Assignment	20
9/13/25	Chapter 6 Review	Quiz	0
9/15/25	Chapter 6 Quiz	Assignment	12

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 will be issued for theory classes by completion of CBT training quizzes. At the end of each chapter is the review quiz for that chapter each correct answer will issue .1 points of extra credit. You may take the quiz as many times as you would like, canvas will keep the highest score. All the highest score will be totaled and then added to your final grade on the last day of class.

Academic Integrity

"Honesty is an expectation at Salt Lake Community College. This means that each member of the College community will adhere to the principles and rules of the College and pursue academic work in a straightforward and truthful manner, free from deception or fraud. Any attempt to deviate from these principles is academic dishonesty and will be dealt with according to rules of due process as outlined."

"This section establishes the expectation at SLCC for academic honesty and defines situations that constitute academic misconduct. It also presents the due process to be followed when a student violates academic standards."

Forms of Academic Dishonesty:

Cheating: Presenting others' work as one's own or assisting another student to do so in the classroom, lab or the Assessment Center. Cheating may also occur when a student violates the conditions governing an examination. Examples of cheating include, but are not limited to the following:

- using oral, written, visual, or other forms of communication intended to give or receive improper assistance
- looking at or copying another's work
- using unauthorized materials (texts, notes, calculators, etc.)
- taking an exam for another student
- having someone else take an exam
- altering one's work after an exam has been returned and before resubmitting it
- obtaining and/or using an upcoming exam ahead of test time

Misrepresentation: Falsifying information. This includes, but is not limited to the following:

- having another person represent or stand in for oneself in circumstances where one's attendance and/or performance are required
- misrepresenting class attendance
- presenting false academic credentials
- submitting someone else's work as one's own
- submitting work originally submitted for one course to satisfy the requirements of another course without prior consent of the current instructor. It is assumed that the current instructor expects the work to be original.
- forging or using another's signature
- altering or destroying academic records and documents
- presenting false data, experimental or physical results

Out-of-Class Work: Collaborating on or aiding out-of-class work when prohibited by the instructor. Such unauthorized activity includes, but is not limited to the following:

- receiving unauthorized outside help on take-home exams
- consulting with others about homework, laboratory reports, etc.
- copying another's homework, laboratory reports, etc. and submitting it as one's own

“Plagiarism: Using another person's ideas, evidence, or words without proper acknowledgment or conveying the false impression that the arguments and writing in a paper are one's own. Plagiarism includes, but is not limited to the following:

- acquiring by purchase or otherwise, a part of or an entire document of work which is represented as one's own
- representing the ideas, data, or writing of another person as one's own work, even though some wording, method of citation, or arrangement of evidence, ideas, or arguments have been altered
- concealing the true sources of information, ideas, or argument in any piece of work

Other Academic Violations: Violations of academic policy considered as academic dishonesty include, but are not limited to the following:

- removing materials from the library without proper authority
- infringing on the rights of other students to fair and equal access to academic resources
- duplicating course materials expressly forbidden by the instructor
- using tape recorders or other recording devices in a classroom when not specifically authorized to do so by the faculty member or Disability Resource Center
- ignoring or willfully violating class or laboratory instructions or policies....

Sanctions for Academic Dishonesty

“In cases of academic dishonesty, faculty members may impose one or more of the following sanctions:

- Failing the assignment in which the infraction occurred
- Failing the certification of competency in the area in which the infraction occurred
- Failing the course in which the infraction occurred.

“ In addition, in cases where academic dishonesty has been repeated or is of an especially serious nature, the faculty member should notify his/her Academic Administrator and the Director of Student Life and Leadership of the action taken. If the alleged violation occurs during the final examination period of the term, the faculty member may assign the student an “I” grade to indicate a problem or incomplete work at final time. This grade will remain unchanged until the alleged violation is adjudicated.”

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](#)