

## Course Syllabus

**Course Number: SCI2200**

**Course Title: Physics of Sound**

**Course Description:** This course will cover laws and principles that govern sound. This will include propagation, transmission, along with wave boundary interactions. These will then be used to describe the reception of sound.

**Course Length:** 11 Weeks

**Contact Hours:** 44 Hours

**Lecture:** 44 Hours

**Lab:** 0 Hours

**Credit Values:** 4 Credits

### Quarter Credit Hour Definition

A quarter credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for 10-12 weeks, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, studio work, and other academic work leading to the award of credit hours.

### Learning Objectives:

Upon successful completion of the course, the student should be able to:

1. Graph simple harmonic motion.
2. Describe a wave in terms of propagation, amplitude, period, etc. .
3. Illustrate how waves interact in a one dimensional medium.
4. Analyze a complex wave.
5. Describe how sound is generated and perceived in humans.
6. Show how sound is manipulated electronically and in musical instruments.

**Course Prerequisite(s):** MAT1010

**Methods of Assessment:** See Instructor's *Syllabus Addendum* for details.

**Textbooks:** See Instructor's *Syllabus Addendum* for details.

### Academic Dishonesty and Plagiarism:

Students are expected to maintain the highest standards of academic honesty while pursuing their studies at The Art Institute. Academic dishonesty includes but is not limited to: plagiarism and cheating, misuse of academic resources or facilities, and misuse of computer software, data, equipment or networks.

Plagiarism is the academic equivalent of theft, and can occur in any type of course. If you use someone else's words, ideas, facts or work in anyway, you must identify them as a source. Duplication of someone

else's work while handing in your own is intentional plagiarism. Anyone caught plagiarizing material will be required to meet with the Dean of Academic Affairs, and will be subject to immediate disciplinary action. Plagiarism is grounds for dismissal from school. Instructors must immediately refer suspected cases of plagiarism to the Dean.

Cheating is to gain an unfair advantage on a grade by deception, fraud, or breaking the rules set forth by the instructor of the class. Cheating may include but is not limited to: copying the work of others; using notes or other materials when unauthorized; communicating to others during an exam; and any other unfair advantage as determined by the instructor.

**Disability Policy Statement:**

It is Ai policy not to discriminate against qualified students with documented disabilities in its educational programs, activities, or services. The Art Institute of Seattle provides accommodations to qualified students with disabilities. The Department of Disability Support Services assists qualified students with disabilities in acquiring reasonable and appropriate accommodations and in supporting equal access to services, programs and activities at The Art Institute of Seattle.

Students who seek reasonable accommodations should notify Disability Support Services at 1-855-855-0567 or [dss@aii.edu](mailto:dss@aii.edu) of their specific limitations and, if known, their specific requested accommodations. Students will be asked to supply medical documentation of the need for accommodation. Classroom accommodations are not retroactive, but are effective only upon the student sharing approved accommodations with the instructor. Therefore, students are encouraged to request accommodations as early as feasible with Disability Support Services to allow for time to gather necessary documentation. If you have a concern or complaint in this regard, please contact Student Resolution at [studentresolution@edmc.edu](mailto:studentresolution@edmc.edu). Complaints will be handled in accordance with the school's Internal Grievance Procedure for Complaints of Discrimination and Harassment.