

The Physics of Sound & Music Lab (Fall 2018)

The Combination *PHYS 102/122* has no prerequisites.

You can use this combination as a lab science or science perspective. Pick One.

Instructor: Michael J. Ruiz, Ph.D.; Lab meets in Rhoades/Robinson Hall, Room RRO 114.

Lab Assignments: Online. You need to BRING 1/8" HEADSETS to lab.

Check to see if you have earbuds with the 1/8" plug on the end.

L1 - T (9:55-11:10), **L2** - W (9:30-10:45), **L3** - W (2:00-3:15), **L4** - R (9:55-11:10)

Office Hours: T (11:15-11:45), W (10:45-11:45), W (1:00-2:00), R (11:15-11:45) until Nov 29.

Look for me in either our lab RRO-114 or in my office RRO-124D.

Lab Schedule: There are 10 labs posted online. Don't hesitate to ask for help in lab.

- Monday: Begins the lab week. Try to finish a few questions before coming to lab.
- After the lab period, complete any remaining questions by that Friday.
- Friday 11:59 pm is the deadline to complete the assigned lab for that week.
- You are on your own if you work beyond Thursday noon. Your internet could go down. However, see p. 2 for an opportunity to do make-up lab work.

Exam Schedule: There are two Lab Exams. One is the Midterm and the other is the Final.

- Exam 1 - Midterm Exam covers Labs 1, 2, 3, 4, and 5. See Calendar on next page.
- Exam 2 - Final Exam covers Labs 6, 7, 8, 9, and 10. Final Exam Week.

Attendance: You receive attendance points for working on lab assignments during the lab period. Attendance and consistent lab work are important for borderline cases.

Holidays, Special Events, Cancellation of Classes Due to Weather. Since our labs are online, the schedule continues as posted. For bad weather, do the lab as a take-home lab.

Official University Travel: Let me know if you need to miss lab due to official university travel at least one week in advance. Since the lab work is online, you will finish the lab ahead of time.

Time: Total time for a science lab ranges among the science departments from 2 hours to 4 hours. Allocate for yourself 1.5 hours in addition to your 75-minute lab period for some work on your own. You might not need all of it. See me if you are taking over 3 hours to complete a lab.

Grading: A (740-800), B(660-739), C(580-659), D(500-579), F(0-499).

250 Points for Lab Assignments (25 assignments per lab, 10 labs: $10 \times 25 = 250$)

100 Threshold (10 per Lab if 18 completed). **But do all 25 for full credit to get 350.**

50 L01-L10 Attendance (5 for on time, 3 for late, 0 if more than half the class is missed)

200 Exam 1

200 Exam 2

800 Total

Borderline cases (within reason) are determined by me based on your lab attendance grade and consistency in working on all the labs.

Week Beginning	Lab Title	Online Due Date
August 20, 2018	L01. Measurement	Friday, August 24, 2018
August 27, 2018	L02. Waves	Friday, August 31, 2018
September 3, 2018	L03. The Oscilloscope	Friday, September 7, 2018
September 10, 2018	L04. Modulation	Friday, September 14, 2018
September 17, 2018	L05. The Just Diatonic Scale	Friday, September 21, 2018
September 24, 2018	<i>PHYS 102 Exam 1 aka E1 (A-G)</i>	No Lab Due.
October 1, 2018	<i>Lab Midterm Exam aka LE1</i>	Covers Labs 1, 2, 3, 4, and 5
October 8, 2018	No Tuesday Lab (Fall Break). Wednesday and Thursday Labs Meet to get ahead because they will not meet during Thanksgiving.	No Lab Due.
October 15, 2018	L06. Harmonics	Friday, October 19, 2018
October 22, 2018	<i>PHYS 102 Exam 2 aka E2 (H-N)</i>	No Lab Due
October 29, 2018	L07. Fourier Synthesis	Friday, November 2, 2018
November 5, 2018	L08. Digital Electronics	Friday, November 9, 2018
November 12, 2018	<i>PHYS 102 Exam 3 aka E3 (O-U)</i>	No Lab Due
November 19, 2018 Thanksgiving Week	L09. Spectrograms Only Tuesday Lab Meets	Friday, November 30, 2018
November 26, 2018	Lab 10. Living Creature Sounds	Friday, November 30, 2018
Final Exam Week	<i>Lab Exam 2</i>	Covers 6, 7, 8, 9, and 10

Lab Make-Up and Final Exam Schedule

Make-Up Lab. To allow for emergencies, you may make up a lab during the week of Nov 26.

Final Exam: Lab Section 1 - Tuesday, December 11, 2018 from 8:00 to 9:30 am
 (aka LE2) Lab Section 2 - Monday, December 10, 2018 from 8:00 to 9:30 am
 (covers labs Lab Section 3 - Wednesday, December 12, 2018 from 11:30 am to 1:00 pm
 6,7,8,9,10) Lab Section 4 - Tuesday, December 11, 2018 from 9:30 to 11:00 am

Course Website: <http://www.uncasound.com>
 Bookmark the Exact Address: <http://www.opus.unca.edu/sound/>

For adverse weather consult your email, the UNCA Home Page, or the radio.