University of New Orleans
Spring 2022
Course List

PHYS 5205	Physical Applications of Fourier Transform	Tues / Thurs	11:00am – 12:15pm
PHYS 5401	Intro to Quantum Mechanics	Mon / Wed / Fri	10:00am – 10:50am
PHYS 5501	Electricity & Magnetism	Mon / Wed / Fri	9:00am – 9:50am
PHYS 6209	Intro to Wavelet Transforms	Tues / Thurs	2:30pm – 3:45pm
PHYS 6501	Electromagnetic Theory I	Tues / Thurs	3:30pm – 4:45pm
ENEE 5583	Deep Learning	Tues / Thurs	9:30am – 10:45am

Course Descriptions

PHYS 5205   **Physical Applications of Fourier Transform**   **Tues / Thurs**   **11:00am – 12:15pm**
Instructor: Ioup

Prerequisites: PHYS 1062 and either MATH 2115 or MATH 2134. Physical applications of the Fourier transform and series, convolution, and basic theorems; sampling and data treatment; and introduction to Fourier methods in geophysics and optics. (Units: 3/3)

PHYS 5401   **Intro to Quantum Mechanics**   **Mon / Wed / Fri**   **10:00am – 10:50am**
Instructor: Malkinski

Prerequisites: PHYS 3064 and credit or concurrent enrollment in MATH 2221. An introduction to the basic concepts in quantum mechanics. (Units: 3/3)

PHYS 5501   **Electricity & Magnetism**   **Mon / Wed / Fri**   **9:00am – 9:50am**
Instructor: Malkinski

Prerequisites: PHYS 1062 and MATH 2115 or MATH 2134. Fundamentals of electricity and magnetism. (Units: 3/3)

PHYS 6209   **Intro to Wavelet Transforms**   **Tues / Thurs**   **2:30pm – 3:45pm**
Instructor: Ioup

Prerequisites: PHYS 3064 or PHYS 4205. Low and high pass filters and filter banks; down and up sampling; dilation and wavelet equations; matrix representation; maxflat filters; wavelet bases and frames; windows; wavelet transforms, perfect reconstruction; modulation matrices; polyphase for vectors, filters, and filter banks; orthonormality and Condition O; accuracy and Condition Ap; multiresolution; recursion and cascades; dilation equation in the frequency domain; biorthogonal wavelets; eigenvalues and eigenvectors and Condition E; smoothness, splines, and wavelets; multifilters and multiwavelets; physical applications. (Units: 3/3)

PHYS 6501   **Electromagnetic Theory I**   **Tues / Thurs**   **3:30pm – 4:45pm**
Instructor: Puri

Prerequisite: PHYS 4501 and PHYS 4201 or MATH 2221. Electrostatics, magnetostatics, and Maxwell's equations. (Units: 3/3)

ENEE 5583   **Deep Learning**   **Tues / Thurs**   **9:30am – 10:45am**
Instructor: Alsamman

Prerequisites: Consent of department. Introduction to the design of neural networks with deep architectures for advanced machine learning applications. Topics include: dense NN, convolutional NN, recurrent NN, belief nets, autoencoders. May not be taken for credit by Computer Science majors. (Units: 3/3)

University of New Orleans
Registration Information

Admissions

Applicants for non-degree admission to the Graduate School must have a bachelor's degree. Up to 12 hours earned as a non-degree student may be transferred toward a Graduate degree upon approval of the Graduate Program. Applicants for non-probational admission to a Graduate Program should have at least a 2.5 undergraduate average, a 3.0 average in any graduate work taken, and satisfactory test scores. Individual programs may have additional requirements.

Applicants for undergraduate admission who wish to earn a degree must meet UNO undergraduate admission requirements. Students not seeking a degree may apply to be a special student.

All students must satisfy prerequisite requirements for UNO courses or receive consent of the department offering the course.

Registration

Registration for Spring 2022 is ongoing through January 25th, 2022 by 3:00pm without a late fee. Classes begin on January 26th, 2022. Students should register for classes on-line. Please contact Danielle Poole at 228-688-3170 to let her know that you have enrolled so she can track your paperwork and avoid problems. If you have any questions, please contact Danielle Poole at the CHL.

You can also log on to the University of New Orleans homepage located at www.uno.edu for more information on programs and classes on campus. Classes, days, and times listed are subject to change.

Tuition

Resident and non-resident tuition is $1,460 for 3 graduate credit hours (not including any additional fees). A full listing of tuition costs based on other credit hours and residency status is available at https://www.uno.edu/bursar/grad-fees .

Note: The Center of Higher Learning makes every attempt to accurately list tuition rates for our participating universities. It is advisable, however, to check with the University before submitting your final paperwork or payment.

Important Dates

January 25th	Last day to register without late fee (by 3:00pm)
January 26th	Classes begin
May 13th	Last day of classes
May 14th	Final exams begin

Payment

Payment can be made with a personal check**,** credit card, cash, or by a goverment training form.

Student Advisement

Dr. Juliette Ioup (504-280-6715) is available for counseling students who are interested in the UNO Ph.D. program in Engineering and Applied Science, the master's program in Applied Physics, and any other UNO degree program. Please make appointments by contacting Danielle Poole at 228-688-3170.