

UNIVERSITY OF NEW ORLEANS

**Electrical Engineering & Physics  
Distance Education Graduate Courses  
Fall 2023**

ENEE 5533	Digital Control System Design	Mon / Wed	3:30pm – 4:45pm
ENEE 5575	Data & Computer Communications	Tues / Thurs	3:30pm – 4:45pm
PHYS 5401	Quantum Mechanics I	Tues / Thurs	10:30am – 11:45am
PHYS 5501	Electricity and Magnetism I	Tues / Thurs	9:00am – 10:15am
PHYS 6207	Digital Filtering and Spectral Analysis	Tues / Thurs	3:30pm – 4:45pm
PHYS 6210	Wavelet Applications	Tues / Thurs	2:00pm – 3:15pm

**Course Descriptions**

<b>ENEE 5533</b>	<b>Digital Control System Design</b> Instructor: Nikolaos Xiros	<b>Mon / Wed</b>	<b>3:30pm – 4:45pm</b>
	(Section W001) Prerequisite for ENEE 4533: ENEE 3533. Design and analysis of digital control systems using transform techniques and state-space methods. (Units: 3.00/3.00)		
<b>ENEE 5575</b>	<b>Data &amp; Computer Communications</b> Instructor: Kim D Jovanovich	<b>Tues / Thurs</b>	<b>3:30pm – 4:45pm</b>
	(Section H001) Prerequisites for ENEE 4575: CSCI 1201 and MATH 2108 or MATH 2111. Fundamental concepts of data and computer communications are presented including the open system interconnection (OSI) model, modems, local, metropolitan, and wide area networks (LAN, MAN, WAN), and high speed LANs, packets switching, broadband ISDN, frame relay, asynchronous transfer mode(ATM), and the Internet protocol. (Units: 3.00/3.00)		
<b>PHYS 5401</b>	<b>Introduction to Quantum Mechanics</b> Instructor: Leszek Malkinski	<b>Tues / Thurs</b>	<b>10:30pm – 11:45pm</b>
	Prerequisites: PHYS 3064 and credit or concurrent enrollment in MATH 2221. An introduction to the basic concepts in quantum mechanics. (Units: 3.00/3.00)		
<b>PHYS 5501</b>	<b>Electricity and Magnetism</b> Instructor: Leszek Malkinski	<b>Tues / Thurs</b>	<b>9:00am – 10:15am</b>
	Prerequisites: PHYS 1062 and MATH 2115 or MATH 2134. Fundamentals of electricity and magnetism. (Units: 3.00/3.00)		
<b>PHYS 6207</b>	<b>Digital Filtering and Spectral Analysis</b> Instructor: J. Ioup	<b>Tues / Thurs</b>	<b>3:30pm – 4:45pm</b>
	(Section H001) Prerequisites: PHYS 6206 and MATH 2511 or PHYS 4201. Brief review of transform and random process theory, review of matrix algebra, classical spectral estimation, parametric models for random processes, autoregressive spectrum properties and estimation ARMA spectral estimation, Prony method, minimum variance spectral estimation, eigenvector approaches, multichannel and two-dimensional spectral estimation. (Units: 3.00/3.00)		

**PHYS 6210**

**Wavelet Applications**

**Tues / Thurs**

**2:00pm – 3:15pm**

Instructor: J. Ioup

(Section H001) Prerequisites: PHYS 6209. Distortions and artifacts; Moments and smoothness; Daubechies wavelets; Coiflets; biorthogonal wavelets; Cohen-Daubechies-Feauveau wavelets; FBI fingerprints; Battle-LeMarie wavelets; spline wavelets; Sinc wavelets; multiwavelets; chirplets; curvelettes; Denoising; Image compression; audio, speech, and music compression; Vector map compression; Edge detection; Shrinkage; Synthetic aperture radar; Turbulent flow around Antarctica; Geophysical inversion and migration; Seismic data; Hurricanes; Denoising in underwater acoustics; Classification of underwater mammals; Identification of sperm whales; Differential equations; Random vibration analysis; Medical applications, Feature detection. (Units: 3.00/3.00)

# UNIVERSITY OF NEW ORLEANS

## Registration Information

### Admissions

Applicants for non-probational admission to a graduate program should have at least a 2.5 GPA on a 4-point scale for all undergraduate coursework (2.75 for MBA), a 3.0 GPA on a 4-point scale for all graduate coursework, and satisfactory test scores. Individual programs may have additional requirements.

Students that do not wish to pursue an advanced degree or have missed the application deadline may apply as a non-degree graduate student. Applicants seeking non-degree status are required to submit an official transcript from the institution that awarded their bachelor's degree. No more than 12 graduate credit hours earned while non-degree can be applied towards a degree program.

For more information and to get started on your application, please see <https://www.uno.edu/academics/grad>.

### Registration

Registration for Fall 2023 is ongoing through August 13<sup>th</sup>, 2023 without a late fee. Classes begin on August 14<sup>th</sup>, 2023. All students must satisfy prerequisite requirements for UNO courses or receive consent of the department offering the course. Students should register for classes online.

Please contact Danielle Poole at 228-688-3170 to let her know if you have enrolled in a course so that she can track your paperwork and avoid problems.

Log on to the University of New Orleans homepage located at [www.uno.edu](http://www.uno.edu) for more information on programs and classes. Classes, days, and times listed are subject to change.

### Tuition

A full listing of graduate tuition costs based on credit hours and residency status is available on the UNO website at <https://www.uno.edu/bursar/grad-fees>.

### Important Dates

August 13 <sup>th</sup>	Last day to register without late fee
August 14 <sup>th</sup>	Classes begin
November 29 <sup>th</sup>	Last day of classes
December 1 <sup>st</sup>	Final exams begin

### Student Advisement

Students seeking advice regarding the UNO Ph.D. program in Engineering and Applied Science, the master's program in Applied Physics, or any other UNO degree program should contact Danielle Poole from the Center of Higher Learning at 228-688-3170.

*For more information about the graduate degree programs UNO offers, please see <https://www.uno.edu/academics/grad/programs>.*