

LABVIEW, CERTIFICATE

(Code 230-601)

For advising, contact the Physics and Astronomy Department.

The **LabVIEW Certificate Program** provides UW-Eau Claire students and engineers in local and regional industry with an in-depth understanding of the computer interfacing and data acquisition software package called LabVIEW. LabVIEW has become an industry standard in this technical area. LabVIEW provides an extensive environment in which a scientist or engineer can accomplish a variety of instrument control, data collection and data processing tasks. The UW-Eau Claire LabVIEW Certificate program has also been designed to provide students with the skills and experiences required to pass the first two levels of professional LabVIEW programming certification offered by National Instruments, which is required for many industry positions that involve LabVIEW programming.

The academic goals of the LabVIEW Certificate Program are:

1. to provide students with a working knowledge of electronics which they will get from PHYS 350 and PHYS 360;
2. an understanding of the basics of computer interfacing principles which they get from PHYS 360 and the three LabVIEW courses;
3. an in-depth knowledge of the LabVIEW programming environment which they get from the three LabVIEW courses;
4. an introduction to Field Programmable Gate Arrays (a revolutionary new technology) which they get from the last LabVIEW cRIO course.

To be admitted to the program, UW-Eau Claire students must have completed PHYS 232 with a grade of C or better and be currently enrolled in PHYS 350. Special students must have completed at least 8 credits of electrical engineering coursework equivalent to that in PHYS 350 and PHYS 360.

Code	Title	Credits
Thirteen credits are required for certificate program completion and are drawn from the following course work:		
PHYS 350	Electric and Electronic Circuits	4
PHYS 360	Electronics	4
PHYS 361	LabVIEW Basics	2
PHYS 362	LabVIEW Applications	2
PHYS 363	LabVIEW cRIO	1
Total Credits		13

Note: Students cannot pursue the Physics Major and LabVIEW Certificate to meet graduation requirements for completing a first and second degree program.

Program Learning Outcomes

Students completing this program will be expected to meet the following learning outcomes:

- Demonstrate a working knowledge of electrical circuits and electronics.
- Demonstrate an understanding of the basics of computer interfacing principles.
- Demonstrate an in-depth knowledge of the LabVIEW programming environment.
- Demonstrate familiarity of an introduction to Field Programmable Gate Arrays.