

QUESTIONNAIRE

The Department of Physics has an ongoing program to assess of the success of the undergraduate program in conveying key concepts and skills. We would appreciate your opinions and comments regarding your undergraduate experience. This self-survey is meant to be done anonymously, although you are welcome to include your name if you wish.

Please rate the exposure to and proficiency attained in the following areas. (Often, but not always, these will be the same.) A ranking of 1 indicates no exposure or minimal proficiency. A ranking of 10 means extensive exposure or high proficiency. Also, for skills/proficiencies that are not covered in a specific course, please list courses or other experiences where proficiency was gained where indicated below.

No exposure / Minimal proficiency ←-1--2--3--4--5--6--7--8--9--10---→ extensive exposure / High proficiency

A. Basic mechanics ($F=ma$, linear and angular motion, equilibrium and statics, energy conservation, etc.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

B. Advanced mechanics (Lagrangian and Hamiltonian formulation, degrees of freedom, constraints.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

C. Basic electromagnetism (electrostatics, Biot-Savart law, Lenz's law, integral form of Maxwell's equations.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

D. Advanced electromagnetism (differential form of Maxwell's equations, boundary value problems.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

E. Special relativity

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

F. Thermodynamics

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

G. Basic quantum physics (particle-wave duality, energy quantization, uncertainty principle, probabilistic interpretation of Ψ , atomic structure)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

H. Advanced quantum mechanics (Schroedinger equation, eigenvalues, stationary states, Hilbert space, perturbation.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

I. Experimental/Laboratory skills

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

J. Electronics/ Computerized data acquisition

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

K. Mathematical modeling of physical phenomena and use of mathematical computer programs (special functions, Fourier analysis, Mathematica, Maple, Matlab, etc.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

L. Analysis/assimilation of scientific information (graphical data, analysis of theories, exposure to current research)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses that taught:

M. Oral and written expression of scientific information (presentations, technical reports, etc.)

Exposure: 1 2 3 4 5 6 7 8 9 10

Proficiency: 1 2 3 4 5 6 7 8 9 10

Courses (or other) that taught:

What did you like best about your experience and education as a physics major at UWM?

What areas do you feel could be improved?

Would you recommend this program to a friend?

What was your approximate overall grade point average

Other comments are welcome. Place on back or on another sheet.