

PHYSICS

- *WHAT CAN I DO WITH A MAJOR IN PHYSICS?
- *WHAT CAN I DO TO MAKE MYSELF MORE MARKETABLE?
- *WHERE CAN I FIND CAREER INFORMATION?

· CAREER PLANNING · SUNY POTSDAM · 206 SISSON

Web Site: www.potsdam.edu/offices/career

TEL: 315-267-2344

WHAT CAN I DO WITH A MAJOR IN PHYSICS?

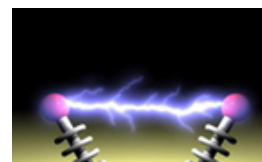
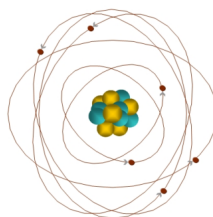
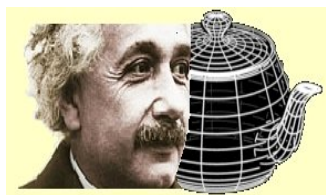
1. Apply the problem solving skills using mathematical reasoning, and utilizing the ability to think logically and creatively.
2. Apply the knowledge to organize and interpret scientific data, build faster electronic components for computers and new instruments that diagnose disease.
3. Work in laboratories, conduct experiments, build models for study, examine the test results and make predictions of the models.
4. Teach science or physics in elementary, secondary and high schools, perform research and development in private industry and government labs.
5. Lend expertise to computing, quality control testing, banking, insurance, management, technical sales, scientific book publishing and to operate hi tech equipment.
6. Join the graduate school in the allied sciences, engineering, math, medicine, law and education for specialization and acquiring unique knowledge of a subfield.

EXAMPLES OF FIELDS OF EMPLOYMENT FOR PHYSICS MAJORS:

- * Academia
- * Business/Industries
- * Government
- * Law
- * Hospitals
- * Utilities Companies
- * Journals
- * Weather Bureaus
- * Airports

SAMPLE JOB TITLES OF SUNY POTSDAM PHYSICS ALUMNI:

- * Assembler
- * Engineer
- * Teacher
- * Senior Manufacturing Engineer
- * Product Engineer
- * Field Technician
- * Associate Power Engineer
- * Physicist
- * Electronic Engineer
- * Technical Support Engineer
- * Instrument & Control Technician
- * Engineering Technician
- * Mechanical Engineer
- * Power Supply and Design Engineer
- * Micro-Analyst
- * Dosimetrist



SAMPLE JOB DESCRIPTIONS

1. Astrophysicist: specializes in the student of the physical aspects of the cosmos or space such as the sun, stars, planets, comets, etc.
2. Biophysicist: studies the physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomenon.
3. Nuclear Engineer: engages in the design, development, monitoring and operation of nuclear power plants to generate electricity and power. Conducts research on nuclear energy and radiation.
4. Meteorologist: analyzes and interprets meteorological data gathered by surface and upper-air-stations, satellites and radar. Prepares reports and weather forecasts for the public and other users.

ENHANCING EMPLOYABILITY:

1. Get involved in the career development process early, *freshman* year.
2. Select minors or elective courses that will demonstrate interest/applicability to your career objectives.
3. Get career-related experience: INTERNSHIPS, summer and/or part-time employment, volunteer. Join a career-related association or organization.
4. Develop the following job search and self-marketing skills: resume writing, cover letter writing, create a portfolio and self-marketing brochure, researching employers, interviewing, networking, and employment searching.
5. Skills to develop: step-by-step problem-solving techniques and mathematical reasoning. Be able to think logically and creatively, to design lab experiments, to develop skills for practical applications in medicine, industry and society (e.g., problems related to energy and environment). To organize and interpret scientific data, to report results of experiments in the presentation or through academic papers, to write grants for funding the work. These efforts require extensive skills in oral and written communications. Interpersonal (people) skills that have little to do with science but everything to do with success in the job market such as teamwork, dealing with clients, managing projects, technical writing, making presentation, and training people.

SAMPLE INTERNSHIP EXPERIENCES:

- * Ames Laboratory
 - A physical science research facility of The Department of Energy with emphasis in material sciences, analytical chemistry, and high-energy physics.
 - Intern will conduct a research project in the fields of sponsoring programs.
- * Argonne National Laboratory
 - Multidisciplinary research facility focusing on basic and applied research in physics, chemistry, environmental-biomedical sciences, computer sciences, engineering, mathematics and material sciences.
 - Interns work with staff scientist or engineer on an ongoing research project in an area of interest.

PREPARING FOR THE JOB SEARCH MARKET:

- * Write an employer targeted resume and cover letter
- * Learn job search strategies
- * Borrow resources from the SUNY Potsdam's Career Planning Library
- * Design a portfolio
- * Network w/ employers at Career/Job Fairs
- * Prepare for an interview
- * Develop networking cards
- * Seek advice from faculty
- * Visit SUNY Potsdam's Career Planning Website at: www.potsdam.edu/offices/career

SOME EMPLOYERS OF SUNY POTSDAM PHYSICS ALUMNI:

- * RLP Associates
- * Lockheed Space Operations
- * Allied Signal
- * Lapp Insulator
- * C.M.E. Associations, Inc.
- * Mini Circuits Lab
- * Core International Corporation
- * D.O. Industries
- * General Motors
- * Assurance Technology

* Chas T. Main * Oneida Research Service

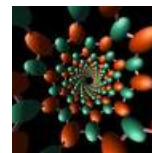
WHERE TO GET INFORMATION AND ASSISTANCE:

1. PHYSICS DEPT., SUNY Potsdam, 220 Timmerman Hall

*Talk with Faculty

*Talk with Students

*Talk with Alumni



2. CAREER PLANNING OFFICE, SUNY Potsdam, 206 Sisson Hall

* Individual Career Assistance

* Job Vacancies

* Workshops/Seminars

* Summer Jobs

* Employer Literature

* Reference File

* Career Assessment Programs

* Career Planning Website

* Career and Job Fairs

* Career Library

* Networking Assistance

* A Major Affair

* Alumni Mentor

* Free Handouts Available

WHAT IF I WANT TO GO TO GRADUATE SCHOOL?

RESOURCES AVAILABLE AT THE CAREER PLANNING OFFICE:

* On-Campus Graduate School Fair

* Graduate School Handout

* GRE, GMAT, MCAT, LSAT, and MAT forms and bulletins
(GRE computerized tests and graduate study books)

* Graduate books – listings of schools and programs

* Financial aid information about graduate school

* Peterson's Graduate Programs (G7F, G7G, G7H, G7I, G7J, G7K)

* Website: www.potsdam.edu/offices/career/graduate

RESOURCES FOR FINDING EMPLOYERS & CAREER INFORMATION:

RESOURCES AVAILABLE AT THE CAREER PLANNING OFFICE:

*Career Guide Opportunity Directory (R8GG)

*Dun's Regional Directories (R8I, R8J, R8K)

* Job Hunter's Sourcebook (R26D)

* The New Careers Directory (I2G)

* Summer Jobs Worldwide (S2A)

* Directory of Public School Systems in the US (R12A)

*The Geophysical Directory (R45B)

* Careers in Biophysics (C7A)

*Landing Your First Jobs: A Guide for Physics Students (C45FF)

* Career Planning Job Search Internet Links: www.potsdam.edu/offices/career/jobsearch/index.cfm

*Additional material found by using Career Planning Library Bibliography

OTHER SOURCES OF INFORMATION:

*American Institute of Physics

One Physics Ellipse

College Park, MD 20740

(212) 661-9404

www.aip.org

*American Board of Health Physics

1313 Dolley Madison Blvd., Suite 402

McLean, VA 22101-3926

(703) 790-1745

www.ncbi.nlm.nih.gov

*American Astronomical Society

2000 Florida Avenue NW, Suite 300

Washington, DC 20009

(202) 328-2010

www.aas.org

*National Science Teachers Association

1840 Wilson Boulevard

Arlington, VA 22201-3000

(703) 243-7100

www.nsta.org

SUNY Potsdam Physics Department.