MAJOR TO CAREER GUIDE
B.S. Physics with a Computational Concentration
College of Sciences

Mission of the College of Sciences
The College of Sciences offers programs in life sciences, chemistry, geoscience, mathematical sciences, physics and astronomy, and water management. The college has created a well-rounded curriculum by combining practical and empirical knowledge with scientific fundamentals and principles, which provides a solid foundation for a successful career in the sciences and other professional programs. The student-faculty relation-ship, hands-on research, and community service help ensure that students who graduate are prepared for whatever path they choose.

www.unlv.edu/sciences

About the Computational Physics Career
Computational Physics combines physics, computer science and applied mathematics in order to provide scientific solutions to realistic and often complex problems. Areas of application include the nature of elementary particles, the study and design of materials, the study of complex structures (like proteins) in biological physics, environmental modeling, and medical imaging. A computational physicist understands not only the workings of computers and the relevant science and mathematics, but also how computer algorithms and simulations connect the two.

Value of the Computational Physics Degree
The rapid advances in the power of computers has been the primary driving factor in the recent developments in science, engineering, and technology related fields in industry. As a result, computational physicists are in great demand, and numerous jobs are available in both industry and academia. Our graduates will present to the job market and graduate schools, people who possess an in-depth education in physics, mathematics and computing, as well as valuable skills in complex problem-solving and team work.

UNLV Academic Advising for Science Majors:

Academic Advisors who are eager to meet with students about their academic goals and to assist in constructing a plan for graduation. Advisors can also help students understand how their experiences at UNLV can lead to a career in their desired field.

College of Sciences Advising Center
Phone: 702-895-2077
Campus Location: MPE-A 130
www.unlv.edu/sciences/advising

Computational Physics BS Career Options
- A graduate degree in physics in areas such as biophysics, condensed matter physics, particle physics, astrophysics to name a few, is required.
- Career in High-performance and scientific computing, in the energy and aerospace sectors, with chemical and pharmaceutical companies, with environmental management agencies.
- Employment in firms that develop scientific software, as well as computer games.
- Research career in an academic, industrial, or national laboratory;
- Teaching career in physics
- Job in Wall Street (Wall Street employers are interested in people with a background in computational physics)

UNLV Student Organizations: Computational Physics

Students are encouraged to get involved with these societies and groups early on!

UNLV Society of Physics Students
https://sites.google.com/site/unlvsp/
Sigma Pi Sigma (SPS) http://www.sigmapisigma.org/

Websites for professional physics organizations:

American Physical Society  http://aps.org/
American Association of Physics Teachers
http://aapt.org/
American Institute of Physics http://www.aip.org/

Graduate Program: Physics M.S. and PhD
Our department offers both the masters and doctoral degree in physics; both degrees require a research thesis. Before considering our physics department as a possible place to pursue an advanced degree, it is best to explore our faculty’s research interests located on the Physics and Astronomy Home Page overlap with your interests.

http://physics.unlv.edu/jobs.html
Helpful Career Information

Visit the Career Occupational Handbook to learn more about a specific occupation:

http://www.bls.gov/ooh/

The OCH covers hundreds of occupations and describes: What They Do, Work Environment, How to Become One, Pay, and more. Each profile also includes BLS employment projections for the 2010–20 decade.

Career Exploration/Planning

FOCUS 2: UNLV’s computerized assessment that profiles your interests, abilities, and values and helps you find a career that’s right for you.

http://hire.unlv.edu/careerAssessment.html

Myers-Briggs Type Indicator (MBTI): Assessment designed to identify how you are energized, how you take in information, how you make decisions, and how you approach life.

http://hire.unlv.edu/careerAssessmentMBTI.html

Strong Interest Inventory: Generates an in-depth assessment of your interests among a broad range of occupations, work and leisure activities, and educational subjects.

http://hire.unlv.edu/careerAssessmentStrong.html

UNLV Career Services

Career Services encourages ALL UNLV students to take advantage of their services, which include:

• Assistance with developing a career plan and choosing a major
• Career counseling and guidance on building a RESUME
• Preparing for an interview, assistance with job searching and networking.

Phone: 702-895-3495
Campus Location: SSC-A 2nd Floor
http://hire.unlv.edu/

Internship Opportunities

UNLV’s Hire a Rebel is a free, online recruiting system that helps students, alumni, and employers connect in a variety of ways.

Students can use Hire a Rebel to search for: job and internship listings, on-campus recruiting interviews, employer information sessions, resume book database, & dates for career fairs.

http://hire.unlv.edu/careerLink.html

MEDIAN SALARIES BY DISCIPLINE 2010-2012

<table>
<thead>
<tr>
<th>Career</th>
<th>Salary Range</th>
<th>Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicist</td>
<td>$49,979 - $139,451</td>
<td>$91,000</td>
</tr>
<tr>
<td>Medical Physicist</td>
<td>$73,759 - $189,274</td>
<td>$122,800</td>
</tr>
</tbody>
</table>

www.payscale.com