Welcome to the

**Physics Education Major**

in the College of Physical and Mathematical Sciences

College Advisement Center
  Website:  https://science.byu.edu/advisement
  Email: science.math.advisement@byu.edu
  Phone:  801-422-2674
  Office:  N-181 ESC

Physics & Astronomy Department
  Website:  physics.byu.edu
  Email: physics_office@byu.edu
  Phone:  801-422-4361
  Office:  N284 ESC

Faculty Advisor –  Adam Bennion
  Email:  adam_bennion@byu.edu
  Phone:  801-422-3095
  Office:  N-319 ESC

Education Advisement Center
  Website:  education.byu.edu
  Email: eac.frontdesk@byu.edu
  Phone:  801-422-3426
  Office:  350 MCKB

Admission into the Physics Education major or minor requires the following:

1) 2.7 minimum high school/college GPA (be in the average of 3.0 for cohort),
2) fingerprint background check,
3) a cohort average ACT score of 21.25 (17 minimum) in English, average cohort score of 21.25 (17 minimum) in math, and an average cohort writing score of 6.60 (5 minimum) or a SAT average cohort verbal score of 543.33, average cohort math score of 532.5, and an average cohort essay score of 5.30.  Anyone who has not taken the writing portion will need to take the Praxis Core Writing test and receive a 165.

Educator:  Apply to the program at educator.byu.edu.  If you have any technical issues, contact the EPP Help Center at 801-422-1190,  [https://epp.byu.edu/](https://epp.byu.edu/).  You should plan to have the application completely done by the time you finish the PHY S 276 class.

STEM Alliance--Connect with STEM employers, mentors, and clubs:  stemalliance.byu.edu

Clubs
   Acoustical Society of America – Contact: Brian Anderson (bea@byu.edu)
   BYU Astronomical Society – Contact: Denise Stephens (denise_stephens@byu.edu)
   Society for Physics Students – Contact: Benjamin Frandsen (benfrandsen@byu.edu)

Learning Outcomes can be found here:  [https://learningoutcomes.byu.edu/Courses/program-courses/694828/Physics+Teaching+BS+/1328](https://learningoutcomes.byu.edu/Courses/program-courses/694828/Physics+Teaching+BS+/1328)
Things to Know

Resources for Graduation Planning

- Flow Charts and Major Academic Plans (MAPs) can be found here: https://science.byu.edu/ advisement/flowcharts.
- Academic advisors in N-181 ESC will help you understand course sequencing and help you plan classes to efficiently fill requirements. They can also help you with study skills and initial career exploration as well as connecting you with correct resources.
- Plan and register from your plan on MyMAP. Your academic advisor can help you understand how to best utilize this resource.
- Evaluate your current program. Periodically major programs are updated. An academic advisor would be happy to review the differences between the programs with you to help you determine what would be best for you.
- Consider meeting with a faculty advisor in your department. Contact info is found on first page of this packet.

Tutoring Resources and Research

- Volunteer peer tutors are available through Y Serve if you need help with a class. Also, if you excel in a subject, consider serving your fellow students by becoming a tutor. Find out more here: https://tutoring.byu.edu/.
- Many departments provide TA Tutorial Labs and research opportunities. Check your department for details:
  - Chemistry and Biochemistry: C-100 BNSN, 801-422-3667, https://www.chem.byu.edu/
  - Computer Science: 3361 TMCB, 801-422-3027, csoffice@cs.byu.edu
  - Geological Sciences: S-389 ESC, 801-422-3918, geology@byu.edu
  - Mathematics: 275 TMCB, 801-422-2061, office@mathematics.byu.edu
  - Mathematics Education: 167 TMCB, 801-422-1735, office@mathed.byu.edu
  - Physics and Astronomy: N-283 ESC, 801-422-4361, physics_office@byu.edu
  - Statistics: 2152 WVB, 801-422-4505, statsec@stat.byu.edu

Prepare Early for a Career

- Check out University Career Services in 2590 WSC and at https://ucs.byu.edu/.
- Consider doing an internship.
  - Attend the STEM and Career Fairs held in fall and winter semesters.
  - Talk to your department about internship opportunities.
  - Use LinkedIn and Handshake (see flyer in this packet) to connect with alumni and apply for jobs/internships. BYU Connect is another great resource for networking (connect.byu.edu).
  - Talk with the college Career Director who can help you search for internships as well as assist you with many other career related strategies (see first page of this packet).
- Consider taking StDev 317 (Career Strategies) your junior year.
- Consider taking either Chem 502, CS 502, Geol 502, Math 502, PHSCS 502, or STAT 502 (1-credit Job Search Class). Class is held for 1 hour per week for eight non-consecutive weeks throughout the semester.
BS in Physics Education (694828) MAP Sheet
Physical and Mathematical Sciences, Physics and Astronomy
For students entering the degree program during the 2022-2023 curricular year.
This major is designed to prepare students to teach in public schools. In order to graduate with this major, students are required to complete Utah State Office of Education licensing requirements. To view these requirements go to http://education.byu.edu/oes/licensing.html or contact the Education Advisement Center, 350 MCKB, (801) 422-3426.

### University Core Requirements

#### Religion Cornerstones
- Teachings and Doctrine of The Book of Mormon
- Jesus Christ and the Everlasting Gospel
- Foundations of the Restoration
- The Eternal Family
- The Individual and Society
  - American Heritage
  - Global and Cultural Awareness
- The Individual and Society
  - American Heritage
  - Global and Cultural Awareness
- Skills
  - First Year Writing
  - Advanced Written and Oral Communications
- Quantitative Reasoning
- Languages of Learning (Math or Language)
- Arts, Letters, and Sciences
  - Civilization 1
  - Civilization 2
  - Arts
  - Letters
  - Biological Science
  - Physical Science
  - Social Science
- Core Enrichment: Electives
  - Religion Electives
  - Open Electives

#### Suggested Sequence of Courses

### FRESHMAN YEAR

#### 1st Semester
- **PHSCS 121 (FWSp)** 3.0
- **PHSCS 191 (F)** 0.5
- **MATH 112 (FWSpSu)** 4.0
- **First-year Writing** 3.0
- **Arts** 3.0
- **Religion Cornerstone course** 2.0
- **Total Hours** 15.5

#### 2nd Semester
- **PHSCS 123 (FWSp)** 3.0
- **PHSCS 220 (FWSp)** 3.0
- **PHSCS 225 (FW)** 2.0
- **MATH 113 (FWSpSu)** 4.0
- **PHY S 276 (FW)** 4.0
- **Religion Cornerstone course** 2.0
- **Total Hours** 15.0

### SOPHOMORE YEAR

#### 3rd Semester
- **PHSCS 222 (FW)** 3.0
- **PHSCS 310 or 311** 3.0
- **Biological Science** 3.0
- **Letters** 3.0
- **Physical Science** 3.0
- **Social Science** 3.0
- **Total Hours** 15.0

#### 4th Semester
- **PHSCS 224 (FW)** 3.0
- **PHSCS 240 (FW)** 2.0
- **PHY S 378 (FW)** 1.0
- **IP&T 371** 1.0
- **Math Elective** 1.0
- **Religion Cornerstone course** 2.0
- **Total Hours** 16.0

### JUNIOR YEAR

#### 5th Semester
- **PHSCS 127 (FWSp)** 3.0
- **Physics Elective 1** 3.0
- **IP&T 373 (FWSp)** 1.0
- **WRTG 316** 3.0
- **Arts** 3.0
- **Religion Elective** 2.0
- **Total Hours** 15.0

#### 6th Semester
- **SC ED 353 (FWSpSu)** 3.0
- **SC ED 375 (FWSp)** 3.0
- **American Heritage** 3.0
- **PHSCS 310 or 311** 3.0
- **Biological Science** 3.0
- **Physics Elective 2** 3.0
- **Civilization 1** 3.0
- **Religion Elective** 2.0
- **Total Hours** 17.0

### SENIOR YEAR

#### 7th Semester
- **IP&T 373 (FWSp)** 1.0
- **WRTG 316** 3.0
- **Letters** 3.0
- **Religion Elective** 2.0
- **General Elective** 1.0
- **Total Hours** 15.0

#### 8th Semester
- **PHY S 476R or 496R (FW)** 12.0
- **Total Hours** 12.0

Students are encouraged to complete an average of 15 credit hours each semester or 30 credit hours each year, which could include spring and/or summer terms. Taking fewer credits substantially increases the cost and the number of semesters to graduate.

### Graduation Requirements:

- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0

*THESE CLASSES FILL BOTH UNIVERSITY CORE AND PROGRAM REQUIREMENTS (13 hours overlap)
REQUIREMENT 1
Complete 10 courses

**NOTE:** PHSCS 151 SHOULD BE TAKEN THE FIRST SEMESTER.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 112 - Calculus 1</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 113 - Calculus 2</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>PHSCS 121 - Introduction to Newtonian Mechanics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 123 - Introduction to Waves, Optics, and Thermodynamics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 127 - Descriptive Astronomy</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>PHSCS 129 - Introduction to Physics Careers and Research 1</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>PHSCS 220 - Introduction to Electricity and Magnetism</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td><strong>PHSCS 222 - Modern Physics</strong></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 225 - Introduction to Experimental Physics</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>PHSCS 240 - Design, Fabrication, and Use of Scientific Apparatus</td>
<td></td>
<td>2.0</td>
</tr>
</tbody>
</table>

REQUIREMENT 2
Complete 1 option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 302 - Mathematics for Engineering 1</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 303 - Mathematics for Engineering 2</td>
<td></td>
<td>4.0</td>
</tr>
</tbody>
</table>

REQUIREMENT 3
Complete 1 course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 334 - Ordinary Differential Equations</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

OPTION 2.1
Complete 4 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 213 - Elementary Linear Algebra</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>MATH 215 - Computational Linear Algebra</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>MATH 314 - Calculus of Several Variables</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 334 - Ordinary Differential Equations</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

REQUIREMENT 3
Complete 1 course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSCS 310 - Physics By Inquiry: Mechanics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 311 - Physics By Inquiry: Electricity</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

OPTION 4.2
Complete 9.0 hours from the following option(s)

PHYSICS ELECTIVES: COMPLETE AN ADDITIONAL 9 HOURS FROM THE FOLLOWING (ANY PHYSICS COURSE ALREADY TAKEN WILL NOT DOUBLE COUNT).

OPTION 4.1
Complete up to 3.0 hours from the following course(s)

**COMPLETE UP TO 3.0 HOURS FROM THE FOLLOWING. COURSES FROM REQUIREMENT 3 CAN'T BE DOUBLE COUNTED AS ELECTIVES.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 423R - History and Philosophy of Science</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 137 - Energy, Climate, and the Environment</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 167 - Descriptive Acoustics of Music and Speech</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 310 - Physics By Inquiry: Mechanics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 311 - Physics By Inquiry: Electricity</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 318R - Special Topics in Physics</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

OPTION 5.1
Complete 9.0 hours from the following course(s)

**COMPLETE AT LEAST 6 HOURS FROM 300-, 400-, OR 500-LEVEL PHYSICS COURSES, NOT INCLUDING 310 OR 311 OR 399R (PHSCS 321, 461, AND 471 ARE HIGHLY RECOMMENDED).**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSCS 310R - Special Topics in Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 338 - Introduction to Mathematical Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 339 - Mechanics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 369 - Observational Astronomy</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 371 - Computational Physics Lab 2</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 383 - Statistical and Thermal Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 390R - Seminar in Current Physics</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>PHSCS 416 - Writing in Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 427 - Stellar Astrophysics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 428 - Galaxies and Cosmology</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 430 - Computational Physics Lab 3</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>PHSCS 444 - Electricity and Magnetism</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 447 - Electrodynamics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 451 - Quantum Mechanics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 452 - Applications of Quantum Mechanics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 461 - (Phscs-Me En) Introduction to Acoustics</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

OPTION 5.2
Complete 1.5 hours from the following course(s)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSCS 471 - Principles of Optics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 477R - Secondary Minor Student Teaching</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>PHSCS 492R - Capstone Project in Applied Physics</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>PHSCS 497R - Research in Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 498R - Senior Thesis</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>PHSCS 502 - Job Search Strategies</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>PHSCS 540 - Electrical Engineering Principles and Practices for Physicist</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>PHSCS 560 - Acoustical Measurement Methods</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 561 - (Phscs-Me En) Fundamentals of Acoustics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 571 - Lasers and Atoms</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 581 - Solid State Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 583 - Physics of Nanoscale Systems, Surfaces, and Interfaces</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 585 - Thin Film Physics</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 586 - Transmission Electron Microscopy for Physical Science</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 587 - Physics of Semiconductor Devices</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 588 - Scanning Electron Microscopy (SEM) for Physical Science</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHSCS 599R - Academic Internship</td>
<td></td>
<td>9.0</td>
</tr>
</tbody>
</table>

REQUIREMENT 5
Complete 2 options

PROFESSIONAL EDUCATION COMPONENT:

Licensure requirements: Contact the Education Advisement Center, 350 MCKB, 801-422-3426, to schedule the final interview to clear your application for the secondary teaching license. You should be registered for your last semester at BYU prior to the scheduled appointment.

OPTION 5.1
Complete 9 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSE 402 - Educating Students with Disabilities in Secondary Classroom</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>IP&amp;T 371 - Integrating K-12 Educational Technology</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>IP&amp;T 372 - Integrating K-12 Educational Technology 2</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>IP&amp;T 373 - Teaching in K-12 Online and Blended Learning Contexts</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>PHY S 276 - Exploration of Teaching</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>PHY S 377 - Teaching Methods and Instruction</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>PHY S 378 - Practicum in Secondary Education</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>*SC ED 353 - Multicultural Education for Secondary Education</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>SC ED 375 - Adolescent Development and Classroom Management</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: FBI fingerprint and background clearance must be completed prior to enrollment in Phy S 276.

OPTION 5.2
Complete 12.0 hours from the following course(s)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY S 476 - Secondary Student Teaching</td>
<td></td>
<td>12.0</td>
</tr>
<tr>
<td>PHY S 496 - Academic Internship - Secondary Education</td>
<td></td>
<td>12.0</td>
</tr>
</tbody>
</table>

Student teachers/interns must complete three forms in their Educator accounts (PIBS, CDS, PED) and attach their TWS to the Educator account for their program. All four must be completed to be cleared for graduation.
**THE DISCIPLINE:**
Over the centuries physicists and astronomers have studied the fundamental principles that govern the structure and dynamics of matter and energy in the physical world, from subatomic particles to the cosmos. Physicists also apply this understanding to the development of new technologies. For example, physicists invented the first lasers and semiconductor electronic devices.

Physics and astronomy students learn to approach complex problems in science and technology from a broad background in mechanics, electricity and magnetism, statistical and thermal physics, quantum mechanics, relativity, and optics. The tools they develop at BYU include problem solving by mathematical and computational modeling, as well as experimental discovery and analysis. All students gain professional experience in a research, capstone, or internship project, usually in close association with faculty. Together these experiences can provide excellent preparation for employment or for graduate studies in physics, other sciences, engineering, medicine, law, or business.

Most physicists and astronomers work in research and development in industrial, government, or university labs to solve new problems in technology and science. They also share the beauty discovered in our physical universe by teaching in high schools, colleges, and universities.

**CAREER OPPORTUNITIES:**
A degree in physics or physics-astronomy can provide:

1. Preparation for those who intend to enter industrial or governmental service as physicists or astronomers.
2. Education for those who intend to pursue graduate work in physics or astronomy.
3. Education in the subject matter of physics for prospective teachers of the physical sciences.
4. Undergraduate education for those who will pursue graduate work in the professions: business (e.g., an MBA), law, medicine, etc.
5. Fundamental background for other physical sciences and engineering, in preparation for graduate study in these fields.
6. Physics fundamentals required by the biological science, medical, dental, nursing, and related programs.

For more information, see www.physics.byu.edu/undergraduate/careers.

**MAP DISCLAIMER**
While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed requirements. Please refer to the university catalog and your college advisement center/department for complete guidelines.

**DEPARTMENT INFORMATION**
Department of Physics and Astronomy
Brigham Young University
N-283 ESC
Provo, UT 84602
Telephone: (801) 422-4361
physics_office@byu.edu

**ADVISEMENT CENTER INFORMATION**
Physical and Mathematical Sciences College Advisement Center
Brigham Young University
N-181 ESC
Provo, UT 84602
Telephone: (801) 422-2674
BYU
Physics Education BS
Requirements / Prerequisites
2022-2023 Academic Year

Major (78.5-79.5 Hours)

1. Admission into the major or minor requires the following:
   1) 2.7 minimum high school/college GPA (be in the average of 3.0 for cohort),
   2) fingerprint background check, 3) a cohort average ACT score of 21.25 (17 minimum) in English, average cohort score of 21.25 (17 minimum) in math, and an average cohort writing score of 6.60 (5 minimum) or a SAT average cohort verbal score of 543.33, average cohort math score of 532.5, and an average cohort essay score of 5.30. Anyone who has not taken the writing portion will need to take the Praxis Core Writing test and receive a 165.

2. Grades below C in professional education courses or content courses will not be accepted. Teacher candidates must have minimum of a cumulative 2.7 GPA.

3. Complete the following: Math 112, Math 113, PHSCS 121, PHSCS 123, PHSCS 127, PHSCS 191, PHSCS 220, PHSCS 222, PHSCS 225, PHSCS, PHSCS 240.


5. Complete one of the following: PHSCS 310 or PHSCS 311.

6. Complete 9 hours from the following. Three hours may come from list A and up to 9 credits may come from list B (at least 6 credits must come from list B).
   A. Phil 423R, PHSCS 137, PHSCS 167, PHSCS 310, PHSCS 311, PHSCS 313R.


8. Take either PHY S 476 or PHY S 496

Physics Education Minor (27 Credits)

1. Take the following 7 courses: Math 113, PHSCS 121, PHSCS 123, PHSCS 220, PHSCS 222, PHSCS 225, PHSCS 240.
2. Take Phy S 377
3. Take PHSCS 477R

Guide only—please consult MyMAP for full requirements.

Note: When Taught is subject to change.

Updated 02/08/2023
BYU’s own job board. Employers who want to hire BYU graduates or offer internships to current students post job openings to this website and students apply. Just like LinkedIn, employers can view student profiles and students can network as they apply for jobs and internships.

Login to handshake.byu.edu >>> BYU Net ID
*you do not need to create an account, just sign in with your BYU information

HOW TO MAKE THE MOST OUT OF HANDSHAKE:

1. COMPLETE YOUR PROFILE
   - Upload your resume and it will auto-fill in your profile
   - Completed profiles tailor your Handshake experience
   - Information from your transcript is already uploaded
   - Fill in the Summary/Bio section
   - Fill in your past jobs and experiences, including all the bullet points you use on your resume
   - Add a professional headshot and background photo
   Remember: every word in your profile will be searchable by students and employers

2. APPLY FOR JOBS
   - Search for job titles, employers, or skills
   - Apply for interesting jobs that meet your skill set

3. RESEARCH COMPANIES
   - Under the “Jobs” Tab there is an “Employers” Tab
   - Search for keywords or locations to find companies that are the right fit for you
   - Plan to attend their info sessions on BYU Campus, connect with them at Career Fairs, or set up informational interviews to learn more
   Remember: when looking at companies or jobs, Handshake will tell you what other BYU students have worked there. Use this resource to network and discover more information!

4. EXPLORE FELLOW STUDENTS
   - “Students” tab
   - Search for fellow BYU students to view their profiles and job positions (Facebook stalking... “networking”)

5. ATTEND EVENTS
   - The “Events” tab will be your key to attending info sessions, interviews, and Career Fairs
   - The “Calendar” tab under “Events” will show you what events are coming soon
   - Make sure to save events you are interested in or RSVP so you do not forget to attend
   - Spread the word to your friends on social media

6. DOWNLOAD HANDSHAKE APP
   - Search: “Handshake” not “Handshake Career Services”
   - Input your BYU e-mail address: netID@byu.edu (it will forward emails to the e-mail you have on file with BYU)
   - Handshake will send you a link via e-mail to enable your account in the app
   - Navigate the app to perform all the functions of the website that have been previously mentioned

7. VISIT THE CAREER STUDIO
   - Freshen up your resume, cover letter, or LinkedIn
   - Receive networking help
   - Practice interviewing with a mock interview
   - Meet with a full-time Career Counselor in your field

8. GET A JOB, RING THE BELL
   - Once you’re hired, stop by the Career Studio to ring our Victory Bell and get a picture for the Victory Board

employers are

5X MORE LIKELY
to view a profile that has at least one job/skill/organization
## Research Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acoustics</td>
<td>Thursday</td>
<td>4:00PM</td>
<td>C255 ESC</td>
</tr>
<tr>
<td>Astronomy</td>
<td>Every other</td>
<td>12:00PM</td>
<td>MARB 108</td>
</tr>
<tr>
<td>Atomic, Molecular, Optical</td>
<td>Contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condensed Matter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials for Space Observatories</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantum</td>
<td>Thursday</td>
<td>2:00PM</td>
<td>N309 ESC</td>
</tr>
<tr>
<td>Science Education</td>
<td>Wednesday</td>
<td>3:00PM</td>
<td>N106 ESC</td>
</tr>
<tr>
<td>Theoretical and Mathematical</td>
<td>Tuesday</td>
<td>3:00PM</td>
<td>N209 ESC</td>
</tr>
</tbody>
</table>

*For most updated information on times and locations of research groups, please visit: [https://www.physics.byu.edu/undergraduate/research](https://www.physics.byu.edu/undergraduate/research) Be sure to scroll down to the professors for additional information.*