Physicists lead the research that is driving the technological revolution, from lasers and medical imaging to radio astronomy and supercomputers. Using a logical approach, they explore the basic principles that make our physical universe work. Physicists design and perform experiments with lasers, cyclotrons, telescopes, mass spectrometers, and other cutting-edge equipment. Employing observation and analysis, they attempt to discover the laws that describe the forces of nature, such as gravity, electromagnetism, and nuclear interactions. They also find ways to apply physical laws and theories in fields that affect us all – nuclear energy, electronics, optics, materials, communications, aerospace technology, and medical instrumentation.

Physicists require a strong background in both science and mathematics, the ability to approach concepts both theoretically and practically, and top-notch problem-solving skills. Research and development work is an integral part of most physicists’ responsibilities. Some perform basic research to increase scientific knowledge; others conduct applied research with the goal of creating new devices, products, and processes. For instance, basic research in solid-state physics led to the development of transistors and then to the integrated circuits used in computers.

While most physicists work in research and development or for the federal government, some may find work in quality control, inspection, testing, or other production-related fields. Those who hold a bachelor’s degree are often employed as research assistants or technicians and work in a wide variety of scientific fields. They may set up computer networks and laboratory equipment, teach science in secondary schools, or even take on nontraditional roles, such as systems analysts or database administrators. Graduates may also qualify for positions related to engineering, mathematics, and computer science.

Why Physics at Lawrence Tech?
The Bachelor of Science in Physics program at Lawrence Technological University offers you excellent preparation for immediate employment in this competitive field, as well as for advanced study. Courses such as classical and contemporary physics, quantum mechanics, thermal and

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**CURRICULUM**

*Your 125-credit-hour program consists of:*

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities (with emphasis on leadership)</td>
<td>29</td>
</tr>
<tr>
<td>Math and Computer Science</td>
<td>26</td>
</tr>
<tr>
<td>Physics and Physical Science</td>
<td>48</td>
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<tr>
<td>Chemistry</td>
<td>9</td>
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<tr>
<td>Electives</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
</tr>
</tbody>
</table>

**SAMPLE CORE COURSES**

- Analytical Mechanics
- Condensed Matter Physics
- Contemporary Physics
- Electricity and Magnetism
- Optics, Lasers, and Microscopy
- Quantum Mechanics
- Thermal Mechanics
- Thermal Physics
Graduates with a degree in Physics have many career options:

- Acoustics
- Astronomy
- Biomedical engineering
- Geophysics
- Government
- Health physics and nuclear medicine
- Lasers and holography
- Meteorology and weather science
- Nuclear science
- Patent law
- Research and development
- Science education
- Seismology
- Space science
- Superconductivity

condensed matter physics, electricity and magnetism, and nuclear physics can prepare you for work in industry and in fundamental and applied research. The physics curriculum incorporates computer technology throughout the range of courses and state-of-the-art computerized labs allow analysis of data gathered with interfaced sensors.

Opportunities for hands-on experiences abound – you will have the opportunity to participate in internships at such well-known national facilities as the Argonne, Los Alamos, and Oak Ridge National Laboratories, Fermilab, and the National Radio Astronomy Observatory, and as a senior you will complete an individualized research project. The depth of the program also can give you a competitive edge when applying to highly regarded graduate programs in physics, law, or medicine.

Getting Started
For more information, visit ltu.edu/arts_sciences/physics or contact Lawrence Tech’s Office of Admissions at 800.CALL.LTU or admissions@ltu.edu.

GET MORE. DO MORE.

Lawrence Technological University produces leaders with an entrepreneurial spirit and a global view. That’s why most Lawrence Tech students are employed within a month of graduating. Your benefits:

- Leadership Program that helps you develop the marketable skills that employers seek
- Leadership Portfolio that enhances your diploma – and your resume
- 12:1 student-faculty ratio
- Faculty with current industry experience
- Fully loaded high-powered laptop or tablet computer provided
- Schedules that work for you, with convenient day, evening, weekend, or online classes
- High-tech, wireless 102-acre campus that’s commuter friendly, with recreation, housing, and meal service options
- Financial-aid, co-op, and internship opportunities
- Proactive career placement services

Explore over 100 undergraduate, master’s, and doctoral programs in Colleges of Architecture and Design, Arts and Sciences, Engineering, and Management.