

# PHYSICS

## **I. General statement of collection development policy**

The collection supports instruction and research through the doctoral level, faculty research, interdisciplinary needs and general undergraduate interests. The collection includes serials, monographs, and electronic resources in condensed matter physics, biophysics, gravitation, field theory, nanotechnology, optics, particle physics, statistical physics, astronomy, and astrophysics. Electrical engineering (EE) is excluded from this collection, but EE materials dealing with electronics, semiconductors, and physical aspects of computation are included.

## **II. Description of University program**

Wake Forest University offers a Bachelor of Arts degree in physics, a Bachelor of Science degree in physics, and a five-year Bachelor of Arts/Master of Science degree in physics. In addition, the Doctor of Philosophy in Physics and Master of Science in Physics are offered with concentrations in condensed matter physics, atomic physics, biophysics, nanotechnology and materials physics, gravitation and particle physics, optics, statistical physics, and quantum and classical relativistic field theory. In addition, First Year Seminars in physics are offered at Wake Forest University.

## **III. Interdisciplinary elements of subject area**

Some materials that are collected to support physics are classified with chemistry (e.g., chemical physics, atomic and molecular physics, atmospheric chemistry, computational chemistry), biology (e.g., biophysics, molecular biology), or mathematics (mathematical physics, group theory, nonlinear dynamics).

## **IV. Formats and types of materials**

Physics resources are concentrated in serial and periodical titles. Electronic delivery with secure archive is the preferred format. Other formats include electronic databases, research level monographs, and advanced level textbooks. Select advanced level textbooks may be purchased in each area of physics.

The major indexing and abstracting service for physics (INSPEC) is maintained electronically. Major electronic resources are the Institute of Physics (IOP) electronic journal package, the IOP Journal Archive, the Physical Review Online Archive (PROLA), the American Institute of Physics (AIP) electronic journal package, and Web of Science. Additional abstracts and indexes from other science disciplines supplement the coverage these sources provide.

Conference proceedings are acquired on a selective basis.

Bibliographies are acquired on a selective basis.

Technical reports may be selectively added at faculty request.

Government documents are received through the Federal Library Depository Program. Pertinent agencies include, but are not limited to the U.S. Environmental Protection Agency, the U.S. Geological Survey, the U.S. Department of Energy, and the National Science Foundation.

Dissertations from institutions other than Wake Forest University are rarely purchased.

Microfilms may be purchased to fill in gaps in periodical holdings or in cases where the information is not available in print format.

Print materials are provided through the approval order plan and by faculty or liaison selection.

Electronic resources may be added to the collection within the parameters of the electronic resources policy.

Videos and other non-print media may be added to the collection as need indicates.

## **V. Languages**

English is the language of choice. Materials are also purchased in German, French, or other languages, as needed.

## **VI. Geographic areas (subject approach)**

Not applicable.

## **VII. Time periods (subject approach)**

Emphasis is on current developments, with limited selection of retrospective material.

## **VIII. Date of publication**

Emphasis is on the acquisition of current imprints and materials published within the last ten years.

## IX. Deselection of Library materials

Materials will be withdrawn from the collection in accordance with the library's weeding policy.

## X. Subject areas and level of collecting intensity

<b>LC Class</b>	<b>Subject</b>	<b>Desired Level</b>
<b>QB</b>	<b>Astronomy</b> The structure of the LC Classification scheme used in this policy may appear to overemphasize the role of astronomy (QB) in comparison to physics (QC). The collection supports instruction and research in physics, of which astronomy is considered a part.	
1-139	General	3
15-34	History	3
35-36	Biography	3
54	Extraterrestrial life	3
61-62	Study and teaching, research	3
63	Stargazers' guides	2
64	Observers' handbooks	2
81-84	Observatories	2
85-115	Astronomical instruments	3
140-237	Practical and spherical astronomy	2
201	Geodetic astronomy	2
209-224	Time	2
224.5-237	Longitude and latitude	2
275-343	Geodesy	2
301-328	Geodetic surveying	2
330-339	Gravity determinations	3
349-421	Theoretical astronomy and celestial mechanics	3
414-419	Theory of tides	2
455-456	Astrogeology	2
460-466	Astrophysics (General)	4
468-480	Non-optical methods of astronomy	2
495-903	Descriptive astronomy	3
500.5-785	Solar system	2
799-843	Stars	2
851-855	Clusters and nebulae	3
856-903	Galaxies	3
980-991	Cosmogony, cosmology	4
<b>QC</b>	<b>Physics</b>	
1-75	General	3
15-16	Biography	3
81-114	Weights and measures	2
120-168.85	Descriptive and experimental mechanics	3
170-197	Atomic physics, constitution and properties of matter (including molecular physics, quantum theory, and solid state physics)	4

178	Gravitation	4
221-246	Acoustics, sound	2
251-338.5	Heat	4
310.15-319	Thermodynamics	4
350-467	Optics, light	4
450-467	Spectroscopy	4
474-496.9	General radiation physics	4
501-766	Electricity and magnetism	3
611.9-612	Superconductivity physics	4
669-675.8	Electromagnetic theory	3
676-678.6	Radio waves (theory)	2
689.55.S45	Semiconductor lasers	3
701-715.4	Electric discharge	2
717.6-718.8	Plasma physics, ionized gases	3
750-766	Magnetism	4
770-798	Nuclear and particle physics, atomic energy, radioactivity	4
793-793.5	Elementary particle physics	4
794.95-798	Radioactivity and radioactive substances	3
801-809	Geophysics	2
811-849	Geomagnetism	2
851-999	Meteorology, climatology (including the earth's atmosphere)	2
	Meteorology and climatology have been assigned a collection level of 2 in support of the Environmental Studies program.	
QH505-506	Biophysics	4
T174.7	Nanotechnology	4
TA401-492	Materials	4
TA1695-1706	Lasers and Laser Applications	3

Revised February 2007 by Sarah Jeong, Science Librarian, and Bill Kerr, Physics Faculty Representative.

Updated in 2014 by Sarah Jeong.