

Collection Policy: Physics & Computer Science Program

Last reviewed July 2007

Purpose

The Collection Development policy is used as a guide to shape relevant collections and to ensure consistency in collection development. The decision to purchase library materials is primarily the responsibility of the Collections Librarian in consultation with faculty in the Department.

This policy has been developed by Michael Skelton, the Collections Librarian, in cooperation with and endorsed by Angele Hamel, the Department Faculty Library Liaison and the Department Chair.

Collection Focus

- To support teaching, study and research up to the honours undergraduate *level*, as well as to support faculty research
- Areas of special interest must include: acoustical foundations of music, applied mathematics, astronomy, computer science, digital electronics integrated circuits, lasers, meteorology, optics, photonics, physics, solid state physics. Within each specific area individual faculty members may make recommendations for items to be included in the collection.

Collection Scope

- **Language:** primarily English language materials are collected. Important publications primarily in French, German, Spanish and Russian will also be considered either in their original language or translation if available.
- **Place of Publication:** emphasis is placed on Canadian and American publishers first, then British and European
- **Dates of Publication:** emphasis is placed on recently published works.
- **Chronological Period:** contemporary and historical works are acquired
- **Geographical Areas:** no geographical restrictions. Material is selected for its scientific importance
- **Publishers:** works from scholarly and academic publishers are emphasized

Types, Formats, and Readership of Materials Collected

- Materials with academic-level readership are selected
- Web-based formats for reference sources, journals and indexing sources are preferred. Print and microform are considered for reason of cost, availability, expected use or long term access.

- Single copies of books in print formats are generally selected. Web-based formats are selected on a title by title basis, especially if the title is of interest to users at multiple Laurier campuses. Duplication of print across Laurier campuses is generally avoided.
- Excluded types include textbooks, abridgements, study aids, limited editions, works by vanity presses, juvenile, pamphlets, reprints and partial contents (eg. single issues of journals, electronic versions of single chapters of books).
- The following items, as they apply to Physics & Computer Science, will only be considered for inclusion in the collection upon the request of the faculty:
 - Proceedings, symposia, international congresses, etc
 - Selected Canadian and American theses
 - Reports of non-governmental organizations such as research centres, university departments, etc
 - Numeric and/or spatial data
 - Electronic formats

Subjects Collected and Collecting Priorities

Collecting priorities are categorized into 3 levels:

- A=highest emphasis. The collection includes major published materials required to support the core teaching and research at the highest degree level offered by the Department.
- B=secondary emphasis. The collection includes a selection of materials to complement the discipline as a whole, although it may not be a primary focus for courses. This level is also used to identify other departments that may have identified aspects of this area as something of highest emphasis
- C=selective emphasis. Materials, including reference materials and basic journals and indexes are collected to introduce and define an area

Subjects Collected	Classification	Collecting Priority
Mathematics		
Computer Science	QA75.5-QA76.95	A
Machine Theory. Abstract Machines. Abstract Automata	QA267-QA268.5	B
Astronomy		
General. History	QB1-QB139	C
Practical and Spherical Astronomy	QB140-QB168	
Position of Pole	QB169	
Determination of the Ecliptic	QB171	
Prediction of Eclipses, Occultations, & Transits	QB175-QB185	
Geodetic Astronomy	QB201-QB205.U7Z	
Azimuth. Determination of Meridian	QB207	

Time	QB209-QB224	
Longitude and Latitude	QB224.5-QB237	
Geodesy	QB275-QB343	
Theoretical Astronomy and Celestial Mechanics	QB349-QB421	
Cosmochemistry	QB450-450.5	
Astrogeology	QB454-QB456	
Astrophysics (General)	QB460-QB466.P67	
Non-optical Methods of Astronomy	QB468-QB480	
Descriptive Astronomy	QB495-QB991	
Physics		
General	QC1-QC19	C
Mathematical Physics	QC19.2-QC20.85	C
General Works, Teatises, Advanced Textbooks	QC21-QC29	C
Study and Teaching. Research	QC30-QC71	
Force and Energy (General)	QC72-QC75	
Weights and Measures	QC81-QC114	
Descriptive & Experimental Mechanics		
General	QC12-QC131	
Dynamics. Motion	QC133-QC137.52	
Fluids. Fluid Mechanics	QC138-QC168.86	
Atomic Physics. Constitution & Properties of Matter	QC170-QC171.2	
Constitution of Matter & Antimatter (General)	QC172-QC173.25	
Properties of Matter & Antimatter (General)	QC173.28- QC173.458	
Relativity Physics	QC173.5-QC173.65	
Field Theories. Unified Field Theories	QC173.68-QC173.75	
Quantum Theory. Quantum Mechanics	QC1773.96- QC174.52	B
Statistical Physics	QC174.7-QC175.36	B
Superfluid Physics	QC175.4-QC175.47	
Solids. Solid-state Physics	QC176-QC176.9	B
Special Substances	QC176.95	
Theories of the Ether	QC177	
Theories of Gravitation	QC178	
Special Properties of Matter & Antimatter	QC182-QC197	
Sound, Light and Heat as a Whole	QC220-QC220.5	
Acoustics. Sound		
General	QC221-QC229	C
Special Topics (Underwater, Sound Waves, etc.)	QC231-QC246	
Heat		
General	QC251-QC275	
High Temperatures	QC276-QC277	
Low Temperatures	QC277.9-QC278.6	
High Pressure	QC280-QC280.6	
Relations Between Pressure, Volume & Temperature	QC281-281.5	

Calorimeters and Calorimetry	QC290-QC297	
Change of State	QC301-QC310	
Thermodynamics	QC310.15-QC319	
Heat Transfer	QC319.8-QC338.5	
Optics. Light		
General	QC350-QC370	A
Optical Instruments & Apparatus (General)	QC370.5-QC379	
Geometrical Optics	QCC380-QC389	A
Photometry. Microphotometry	QC391	
Physical Optics	QC392-QC449.5	A
Spectroscopy	QC450-QC467	B
Radiation Physics (General)	QC474-QC476.W38	C
Luminescence	QC476.4-QC480.2	
X-rays. Roentgen Rays	QC480.8-QC484.6	
Cosmic Ray Physics	QC484.8-QC485.9	
Other Radiations	QC490.4-QC492	
Color	QC494-QC496.9	
Electricity and Magnetism		
Electricity	QC501-QC718.8	
Magnetism	QC750-QC766.T56	
Nuclear & Particle Physics. Atomic Energy. Radioactivity		
General	QC770-QC784.5	
Instruments and Apparatus	QC785.5-QC787.V45	
Research	QC788-QC788.2	
Nuclear Fission	QC789.7-QC790.8	
Nuclear Fusion	QC790.95-QC791.8	
Atomic energy	QC791.9-QC792.8	
Elementary Particle Physics	QC793-QC793.5	
Nuclear Interactions	QC793.9-QC794.8	
Radioactivity & Radioactive Substances	QC794.95-QC798	
Geophysics. Cosmic Physics		
General	QC801-QC809	
Geomagnetism	QC811-QC849	
Meteorology. Climatology		
General	QC851-QC874.8	
Meteorological Stations & Observations. Weather Stations.	QC875-QC875.2	
Meteorological instruments	QC875.5-QC876.7	
Weather Signals, Storm Warnings, etc	QC877	
Weather Broadcasting	QC877.5	
Construction of Weather Maps, Charts, etc	QC878	
Aeronomy. Upper Atmosphere	QC878.5-QC879.59	
Atmospheric Chemistry	QC879.2-QC879.9	
Dynamic Meteorology	QC880-QC880.4	
Atmospheric Shells (General)	QC881-QC881.2	
Atmospheric Pollutants	QC882-QC882.6	
Cosmic Relations. Influence of Sun & Moon, etc.	QC883-QC883.2	

Mesometeorology	QC883.4-QC883.52	
Micrometeorology	QC883.7-QC883.82	
Paleoclimatology	QC884-QC884.2	
Atmospheric Pressure	QC885-QC896	
Temperature and Radiation	QC901-QC913.2	
Aqueous Vapor	QC915-QC929.28	
Wind	QC930.5-QC959	
Electrical Phenomena in the Atmosphere	QC960.5-QC969	
Aurora	QC970-QC972.5	
Radio Meteorology. Microwave Meteorology	QC972.6-QC973.8	
Meteorological Optics	QC974.5-QC976	
Climatology and Weather	QC980-QC999	
Electrical Engineering. Electronics. Nuclear Engineering. Telecommunication		
General	QC5101-QC5102.85	A
Apparatus and Supplies	QC5103-QC5103.15	B
Wireless Communication Systems	QC5103.2- QC5103.488	B
Optical Communications	QC5103.59	A
Dense Wavelength Division Multiplexing	QC5103.592	B
Laser Communication Systems	QC5103.6	A
Digital Communications	QC5103.7- QC5103.75	A
Switching Systems	QC5103.8	B
Computer Networks	QC5105.5-QC5105.9	A
Electronics		
General. History. Treatises. Patents. Manuals	QC7800-QC7866	C
Electronic Circuits (General)	QC7867-QC7868	B
Microelectronics. Integrated Circuits	QC7874-QC7895	B
Applications of Electronics	QC788-QC7895	B
Optoelectronic Devices. Photoelectronics Devices	QC8300-QC8360	A

Related Programs and Support

Consortial purchases with the TriUniversity Group of Libraries (Guelph, Waterloo, Laurier university libraries), with the Ontario Council of University Libraries, and on a national level, are pursued.