

**Mary and Jeff Bell Library
Texas A&M University-Corpus Christi
Subject Collection Development Policy
Geographic Information Sciences**

Subject: Geographic Information Systems

Subject Librarian Liaison: Mark Pfeifer

Section I: Program Descriptions

Description of Undergraduate Program: (Source: 2009-10 Undergraduate Catalog)

BACHELOR OF SCIENCE in GEOGRAPHIC INFORMATION SCIENCE

The mission of the Geographic Information Science Program is to prepare graduates for a variety of career paths related to the acquisition, analysis, and management of geospatial data and information. These career paths include education towards advanced degrees and employment in the fields of Geomatics or the rapidly expanding fields of Geographic Information Systems. Graduates will have met the educational requirements to become Registered Professional Land Surveyors in Texas.

Program Objectives

- All graduates are expected to be able to accomplish the acquisition, analysis, and management of geospatial data and information.
- All graduates are capable of continuing paths towards graduate studies and/or employment in the fields of Geomatics and Geographic Information Systems.
- All graduates are prepared to become Registered Professional Land Surveyors, but not all graduates will choose this option.

Program Outcomes

Graduates of the program will have:

- An understanding of the basic principles of mathematics, physics, and computer science; the professional skills; and modern tools for professional practice in the geospatial sciences as well as for graduate education.
- An understanding of the principles in geospatial sciences and understanding of professional practice and ethical issues, including the ability to design and conduct experiments, as well as to analyze and interpret data.
- The ability to work in a team and develop problem-solving skills that include oral and written communication skills to effectively communicate professional geospatial information.
- An awareness and utilization of external organizations and institutions that provide useful geospatial data sets and their relationships to traditional and contemporary societal issues.
- A recognition of the need for continued learning and development of leadership skills through involvement in volunteer professional organizations and societies.

Tracks Offered for Undergraduate Major:

Program Emphases

Geomatics is a field of activity that uses a systematic approach to integrate all means of capturing and managing spatial data required for scientific, administrative, legal, and technical operations involved in the production and management of spatial information. These activities include, but are not limited to, cartography, control surveying, digital mapping, geodesy, geographic information systems, hydrography, land information management, land surveying, mining surveying, photogrammetry, and remote sensing. *Geographic Information Systems* is a professional discipline that focuses on the computerbased solutions to problems involving the collection, synthesis, analysis, and communication of spatially related information within a geographic jurisdiction or area. Local, State, and Federal government agencies and private industries have been rapidly converting paperbased systems used to manage spatially referenced data and information to highly automated graphics systems that integrate digital mapping with computerized databases.

Undergraduate Catalog Course Listings: The course listings are available in the University's Undergraduate Catalog, which is available at:
<http://www.tamucc.edu/academics/index.html>

Description of Graduate Program: (Source: 2009-10 Graduate Catalog)

Tracks Offered:

Post-Baccalaureate Certificate in Geomatics

The Post-Baccalaureate Certificate in Geomatics is designed for students who hold a bachelor's degree or master's degree in fields other than Geomatics or Geographic Information Science and desire to continue their education to prepare for the Texas Board of Professional Land Surveying examination to become a Registered Professional Land Surveyor of Texas. Candidates for the certificate are required to complete 32 credit hours of surveying-related courses; 20 of these credit hours must be taken at Texas A&M University-Corpus Christi. Students are required to meet all other academic standards. The Coordinator of the Geographic Information Science program or a designee may waive certain courses if a student has previously completed appropriate surveying courses. Students must apply for the certificate and complete a Certificate Plan approved by the Coordinator of the Geographic Information Science program or a designee.

32 Credit Hour Certificate in Geomatics

Post-Baccalaureate Certificate in GIS

The Post-Baccalaureate Certificate in GIS is designed for students who hold a bachelor's degree or master's degree in fields other than GIS or Geographic Information Science and desire to continue their education in Geographic Information Science. Candidates for

the certificate are required to complete 32 credit hours of surveying related courses; 20 of these credit hours must be taken at Texas A&M University-Corpus Christi. Students are required to meet all other academic standards. The Coordinator of the Geographic Information Science program or a designee may waive certain courses if a student has previously completed appropriate surveying courses. Students must apply for the certificate and complete a Certificate Plan approved by the Coordinator of the Geographic Information Science program or a designee.

30 Credit Hour Certificate in Geographic Information Systems

Graduate Catalog Course Listings for Geographic Information Science: The course listings are available in the University's Undergraduate Catalog, which is available at: <http://www.tamucc.edu/academics/index.html>

Graduate Courses in Geographic Information Science

Graduate courses in Geographic Information Science are offered in support of graduate degree programs in computer science, environmental science and education. For details concerning these particular degree programs, consult the appropriate section of the catalog.

Graduate courses in GIS are given at present under the Computer Science MS Degree. All these GISC courses are also available as elective courses in various programs with the approval of the mentor/advisor.

Section II: Collection Levels

The designated collection levels will provide the appropriate support for the University's curriculum and academic programs.

The library adheres to library collection standards set by the State Higher Education Coordinating Board (<http://www.theceb.state.tx.us/>), the Southern Association of Colleges and Schools (<http://www.sacs.org/>), and other accreditation agencies.

The Bell Library is also a depository for federal and Texas state government documents, including data sets, publications and standards published by agencies that specialize in Geographical Information Systems, including: U.S. Department of Interior; U.S. Geological Survey; U.S. Environmental Protection Agency; Texas Water Development Board; Texas Railroad Commission; Texas Parks and Wildlife; and the Texas General Land Office.

<u>Subjects</u>	<u>LC Call Number Range</u>	<u>Collection Level</u>
Cartography	GA 101 – 1776	2-3
Digital Mapping	GA 139	2-3

Geodesy	QB 275 – 343	2-3
Geographic Information Systems	G 70.212 – 70.215	4
Hydrography	GB 651 – 2998	3
Surveying	TA 501 – 625	4
Photogrammetry	TA 593 (surveying)	3
	TR 693 (applied photography)	2
Remote Sensing	G 70.39 – 70.6	2-3

Section III: Preferred Collection Formats and Languages

Preferred Collection Format(s): Electronic

Lower-Priority Collection Formats: Print and Microform

Language: English

Section IV: Noteworthy Publishers:

Elsevier (<http://www.elsevier.com>)

Springer (including Taylor and Francis) (<http://www.springerpub.com/>)

Wiley Interscience (<http://www.wiley.com/WileyCDA/>)

Section V: Specialized Lists/Bibliographies in this Subject Area:

“GIS Collection Development, Staffing, and Training” and related articles,
Karl Longstreth. The Journal of Academic Librarianship, July 1995, pp. 231-381.

Section VI: Weeding Policy (Including Frequency of Collection Assessment):

The collections for Geographic Information Science (in the Main and Reference collections) will be examined, and weeded, every 3 years.

Weeding criteria include (1) Currency and relevance of material to the curriculum; (2) Updated/revised editions; and (3) Physical condition of the title (please see the “Weeding” section of the General Collection Development Policy).

Section VII: Gift Policy:

The library will accept donations of materials (monographs, periodicals, etc.) in this subject area. All donors are encouraged to fill out, and sign, a form with the Technical Services Department when the library accepts those materials. If the donor allows the library to keep all donated materials, then the library has the discretion about whether to integrate those materials into the collections or use them in another capacity, such as: (1) Donating those titles to another library; (2) Including them in the annual book sale; or (3) Recycling the materials if no other parties or organizations can use the materials. However, the donor can also specify on the form that they would like all donated materials returned to them if the library cannot add those materials to the collections.

The library will add gift materials to the collections only if they support the curriculum and research in Geographic Information Science.

The Library will generally add print periodical titles to its collections under the following conditions: (1) The library already has a current subscription to that title; (2) The library has determined that there is adequate room for older print volumes of that title; (3) The library does not own those titles but they fit the subject's selection criteria.

Revised by D. Landry-Hyde, 7/30/09.

Approved by Library Director, 8/15/2009.