

Executive Summary
Computer Science and Computer Information Systems Collection Assessment
Submitted by Paula Barnett-Ellis
March 2018

INTRODUCTION

The Computer Science and Computer Information Systems collection is adequate to support the courses taught in the Bachelor's and Master's programs. Complete conspectus sheets and checklists are available upon request for a more detailed examination of the collection.

HOLDINGS

The Computer Science and Computer Information Systems Collection contains **3,713** titles in the call number ranges in the table below. The count includes **5,641** e-books in the QA call number range.*

Classification	Subject Area	Library Holdings
Q335	Artificial Intelligence	94
QA267-268	Machine Theory. Abstract Automata	52
QA75.5-QA76.765	Computer Science	3,242
T58.6	Management Information Systems	64
TK5105	Computer networks	25
TK7885-7895	Computer Engineering	236
Total		3,713

***Note:** the high number of e-books is due to catalog records for items available via Demand Driven Acquisitions (DDA), a method that allows our users to make purchases. Of the e-books listed above, 4,280 are DDA titles, which have not been purchased. DDA works without the patron's knowledge and has three triggers for purchase. In order for an e-book to be "triggered" for purchase, a patron must actively view the contents of one e-book for 10 consecutive minutes, view 10 unique pages of an e-book (not including the Table of Contents or Index), or print/copy one page of an e-book.

These numbers represent a snapshot of the collection, as titles are continually added and withdrawn for collection maintenance and growth. These numbers do not represent additional titles available through e-book databases.

Monograph Expenditures for Computer Science and Computer Information Systems

Fiscal Year	Amount
2010-2011	\$18,960.21
2011-2012	\$21,165.83
2012-2013	\$22,490.00
2013-2014	\$23,748.39
2014-2015	\$24,179.44
2015-2016	\$25,297.62
2016-2017	\$28,543.52
Total	\$164,385.01

PERIODICALS AND SERIALS

The Library has access to full-text journals available through Library databases. There are around 990 journals in computer science and related subjects available electronically through database subscriptions, which can be found in EBSCO's Publication Finder at <http://bit.ly/2zO6DjD>. The Serials expenditures in Computer Science and Computer Information Systems for both print and electronic subscriptions and standing orders average **\$4,956.73** from 2010-2017 (see table below.)

Serial Expenditures for Computer Science/Computer Information Systems

FISCAL YEAR	Amount
2010-2011	\$8,576.93
2011-2012	\$5,904.82
2012-2013	\$6,178.00
2013-2014	\$6,465.06
2014-2015	\$2,414.22
2015-2016	\$2,524.56
2016-2017	\$2,633.54
Total	\$34,697.13

Expenditures for serials have migrated away from the individual subscription model to the aggregator database model. Dollar amounts spent on aggregator databases cannot be sub-divided into subject categories. For 2016/17 the amount spent on aggregated databases was **\$205,145.15**, which came from the general fund.

DEFINED ACCESS TO ELECTRONIC RESOURCES

Defined access points users to resources through menu options on the Library's homepage by linking the user to quality, highly relevant, electronic resources. Because the Library provides access to electronic journals, documents, e-books, and video databases along with integrated quality websites that encompass the area of Computer Science and Computer Information Systems, the Library's electronic collection in this subject is adequate to support the curriculum.

A complete list of all of the Library's databases can be found in the A to Z Database Listing at <http://libguides.jsu.edu/az.php>. The A to Z List also subdivides databases by subject, providing a list of relevant databases at <http://libguides.jsu.edu/az.php?s=26250> and <http://libguides.jsu.edu/az.php?s=26287>. Additionally, the Computer Science and Computer Information Systems guide (<http://libguides.jsu.edu/computerscience>), maintained by the subject specialist, provides a list of and access to the resources specifically for this subject.

Complete details are available in the full assessment, which is available upon request or at http://www.jsu.edu/library/information/collection_assessments.html.

Computer Science and Computer Information Systems Collection Assessment

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INTRODUCTION

The Computer Science and Computer Information Systems collection is adequate to support the courses taught in the Bachelor's and Master's programs. The Computer Science and Computer Information Systems Collection is central to the University curriculum, since it supports study for degree programs in the Bachelor and Master of Science, as well as the Minor in Computer Science and Computer Information Systems, offered by the Department of Mathematical, Computing, & Information Sciences. Other degrees offered by the Department of Secondary Education are Bachelor and Master of Science in Education and Education Specialist. Complete conspectus sheets and checklists are available upon request for a more detailed examination of the collection.

The collection meets the guidelines set forth in the 2016-2017 *Criteria for Accrediting Computing Programs* from the Accreditation Board for Engineering and Technology, (ABET, Inc.), which states, "The library services and the computing and information infrastructure must be adequate to support the scholarly and professional activities of the students and faculty."

ABET Computing Accreditation Commission, Criteria for Accrediting Computing Programs Effective for Evaluations During the 2016-2017 Accrediting Cycle

<http://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-computing-programs-2016-2017/>

HOLDINGS

The Computer Science and Computer Information Systems collection contains **3,713** titles. The count includes **5,641** e-books in the QA call number range.* Total monograph expenditures for Computer Science and Computer Information Systems from 2010-2017 were **\$164,385.01** with **1,854** new titles added. These newer additions comprise close to 50% of the current Computer Science and Computer Information Systems collection.

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SUPPLEMENTAL SUPPORT

Computer Science and Computer Information Systems is an interdisciplinary subject that extends beyond the boundaries of the discipline. Supplemental support for research includes a wide range of subject areas, including the holdings in the related subject collections of Education, Physics, Engineering, Social Sciences, and Technology, as well as our textbook and textbooks for adoption collections on the 5th floor. Areas of interest in additional subjects are in the table below.

Number of titles held for support subdivisions outside the Computer & Information Science Classifications:

Classification	Category	Totals
HF5548.37	Security measures (Computer security) Data Recovery. Disaster Recovery	10
HV6772-6773	Computer crimes (cybercrime, cyber forensics, Investigation)	86
T57.62	Simulation, Game Theory	23
TK5105.5	Computer networks. Security Measures	130

TITLES ADDED/TITLES PUBLISHED

Below is a comparison of the number of book titles added to the Houston Cole Library collection versus those made available for sale each fiscal year through GOBI. These figures contain a large number of Computer Science and Computer Information Systems Como books, some outside the scope of the Library of Congress classification for this assessment, and some are not collected in numbers as large as GOBI has listed.

Monographs Added Versus Published Comparison

Fiscal Year	Added to Collections QA	GOBI New Titles Report¹	Percentage
2010-2011	244	2,718	9%
2011-2012	299	2,779	11%
2012-2013	253	3,068	8%
2013-2014	160	2,956	5%
2014-2015	233	2,857	8%
2015-2016	227	2,894	8%
2016-2017	243	3,053	8%
Total	1,659	20,325	8%

CHECKLIST SUMMARIES

Bibliographies including *Choice's Outstanding Academic Titles (OATs)* and *Resources for College Libraries* were used to measure the quality of the Library's collection. In checking the bibliographies against the Library's catalog, the following percentages were revealed in the subject area of Computer Science and Computer Information Systems.

<i>Choice's Outstanding Academic Titles 2010-217</i>			
Subject	Held	Listed	Percent Held
Information & Computer Science	50	55	90%

<i>Resources for College Libraries 2010-2017</i>			
LC CLASS	Held	Listed	Percentage Held
QA75.5-76.95	127	242	52%

¹ GOBI New Titles Report
(https://www.gobi3.com/StaticContent/GOBIContent/YBP/Private/Help/Pages/newtitlereport_us.html)

WITHDRAWALS

As currency of information is very important in the Computer Science and Computer Information Systems collection, older books are withdrawn on a regular basis or as newer editions supersede them, and new books are ordered to fill gaps as curriculum requirements change. The table below shows withdrawals from the QA classifications.

Fiscal Year	QA Titles Withdrawn
2010-2011	156
2011-2012	93
2012-2013	46
2013-2014	23
2014-2015	114
2015-2016	44
2016-2017	59
TOTAL	535

PERIODICALS AND SERIALS

The Library has access to full-text journals available throughout the Library databases. There are around 990 journals in Computer Science and Computer Information Systems or related areas available electronically through database subscriptions. These can be found in EBSCO's Publication Finder at <http://bit.ly/2zO6DjD>.

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The following journal bibliographies, when checked against the Library's holdings for serial titles pertaining to Computer Science and Computer Information Systems, revealed the corresponding percentages:

Titles	Held	Listed	Percent Held
SCImago Journal Rank (SJR) Computer Science	783	1,315	60%
ACM Digital Library	815	1,378	59%
Magazines for Libraries (2015): Computers and Information Technology	34	35	97%

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Through partnerships, such as the one with the Alabama Virtual Library (AVL), the Library is able to obtain more content. Resources provided to the Library by the AVL are designated with the AVL icon.

SUMMARY

Strengths:

The Computer Science and Computer Information Systems collection is sufficient to support most undergraduate work as well as the Master of Science in Computer Systems and Software Design. The areas of Computer Engineering, Software Engineering, Software Development, and Game Programming are strong. Other strong areas are Database Management and Computer Software. The specific focus of the graduate degree in Computer Systems and Software Design is supported by our collection. A review of the journal holdings reveals that the Computer Science and Computer Information Systems collection is adequate to support the curriculum.

Weaknesses:

Total holdings, conspectus evaluations, and checklist comparisons indicate that the weakest areas of the Computer Science and Computer Information Systems subject areas are: Interactive Media, Interactive Computer Systems, Computer Literacy, and Databases.

Recommendations:

The growth rate of the Computer Science and Computer Information Systems Collection should be maintained in order to provide support for the Bachelor of Science, Master of Science, and Minor in Computer Science and Computer Information Systems. In the Department of Secondary Education, the collection supports the Bachelor of Science, Master of Science, and Education Specialist with a focus on Computer Science and Computer Information Systems Education (6-12). The monograph collection should be generally increased, based on the Library budget. The periodical collection available via databases is substantial and should be maintained. The weak subject areas (noted above) should also be addressed in future additions to the collection.