



Tips from the Experts

Collection Development from Scratch: Supporting a New Degree Program in Construction Management

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Abstract

Construction management is a growing field with strong job prospects and expanding educational opportunities. It is closely related to business and engineering. This article provides an introduction and overview of collection development for academic librarians supporting construction management, from the perspective of the author's experiences at Florida Gulf Coast University. Information types specific to the field include building codes and cost data. Relevant journals, conferences, books, and databases are also discussed.

Introduction

In 2018, I was asked to complete a Library Impact Statement for a new bachelor's degree program in construction management in the Whitaker College of Engineering (WCOE). At the Florida Gulf Coast University Library, these documents are submitted as part of the paperwork required for the creation of new degrees and include information on what books, journals, databases, and other resources already exist to support the program, and what the library will need to acquire along with the costs. I have a bachelor's degree and professional experience in environmental science and have been serving as the liaison librarian to WCOE and the departments of Biological Sciences, Marine and Ecological Sciences, Chemistry and Physics, and Mathematics in the College of Arts and Sciences since 2012. I had grown comfortable supporting those subjects, but construction management was a distinct discipline I knew very little about. Moreover, faculty who would be teaching in the program had yet to be hired, so I did not have the benefit of their input. Browsing the stacks, I found about a dozen dusty titles from the 1970s and '80s on construction that we had acquired as a part of our "seeding" library, bought from an institution that was closing its doors when we first opened. We had not been purchasing new books on the topic, as it had not been a part of the university's academic offerings.

I began by learning about the field itself – perusing an older construction textbook from our collection and reading the U.S. Bureau of Labor Statistics' online *Occupational Outlook*

Handbook entry on construction managers (<https://www.bls.gov/ooh/management/construction-managers.htm>). I then researched which other institutions offered construction management degrees, paying special attention to Florida's public State University System, of which FGCU is a part. I investigated their library's holdings, especially database lists if they were freely accessible online. I searched the LibGuides Community as well as Googled for LibGuides (library guides) on construction management. To determine which journals might be important, I consulted Journal Citation Reports as well as Scimago (<https://www.scimagojr.com/>), which is freely available online, looking at categories like Construction Engineering and Building and Construction. I submitted the Library Impact Statement and hoped for the best.

After the chair of the program was hired, we set up a meeting to review the document and discuss how the library could support the program. The meeting was held in the library and began with a short tour, in which I pointed out the various service desks and their functions. We also visited the circulating collection, where I explained the loan process and pointed out that, while most of our books on construction were out of date, I would be happy to buy more if provided with a list of titles. We also discussed e-books, and looked at the popular periodicals and faculty-author collections. After the tour, we continued to a library consultation room that is set up with dual monitors and keyboards. I shared a construction management LibGuide (<https://fgcu.libguides.com/constructionmanagement>) I had started working on ahead of time. While it was not complete, it included e-books and databases already available through the library that I thought might be helpful. This proved to be a good strategy, as it seemed to “click” with the chair by providing clear examples of the kind of materials the library had available to support students and faculty, and what could be provided in the future. Ultimately, some of the resources I identified in the Library Impact Statement were on target, while others weren't needed. The chair shared several titles and databases that would be more appropriate for the program. When a second faculty member in the program was hired, I repeated the process with a tour and collaborative discussion about collections.

I have continued to collaborate with faculty since the program launched in the fall of 2019. Additional resources have been ordered for the collection, and I have provided information literacy instruction sessions for the following courses: Construction Seminar and Construction Drawing. One of the multi-user e-books we already had in the collection is being used as a textbook for one of the courses, saving students money. The construction management LibGuide serves as the focal point for the growing collection, making it easy for students and faculty to understand what is available to support their research. It has received 100 views since the program started in August 2019. As a librarian, I've gone from having little knowledge of the subject, to wanting to share my experience with others who may find themselves supporting degree programs in construction management. The following are key information resources and tips for collection development in the discipline.

Associations, Periodicals, and Conferences

Important associations include the Construction Management Association of America and the Construction Industry Institute, both of which hold yearly conferences and produce publications of interest to the field. The American Institute of Constructors holds a yearly Constructors Conference and publishes the peer-reviewed, open access journal *The Professional Constructor*. The American Society of Civil Engineers (ASCE) is also a key player in construction management. It publishes a number of journals of interest to the field, such as the *Journal of Construction Engineering and Management*, the *Journal of Composites for Construction*, and the *Journal of Structural Engineering*. The ASCE also holds the international Construction Research

Congress each year. Librarians may benefit from a familiarity with ASCE citation style, as it is widely used in the field and often assigned for student research papers.

Other key journals include the open access *International Journal of Construction Education and Research*, published by the Associated Schools of Construction; the *International Journal of Construction Management*, produced by the Chinese Research Institute of Construction Management; and a number of journals produced by traditional publishers such as Elsevier and Wiley. Subscriptions to a number of magazines and trade journals may also be desirable. *Engineering News Record*, *Professional Builder*, and *Construction Equipment* are popular titles. Faculty and students will likely need access to magazines, trade journals and research journals in business as well. For example, at FGCU, interest has been expressed in *Harvard Business Review*, *The Economist*, and *MIT Sloan Management Review*.

Building Codes

Building codes promote safety by establishing minimum standards of design and construction (Shexnayder & Mayo 2004). Students need access to these codes to complete assignments and research. There are no federal building codes in the United States; rather, codes are enacted at the state, city, and/or other jurisdictional level. Most places have adopted model codes created by the International Code Council (ICC), a non-profit organization created in 1994 to develop comprehensive and coordinated national building codes (Shexnayder & Mayo 2004). They cover different categories such as Building, Residential, Plumbing, Mechanical, Existing Buildings, Energy Conservation, Fire, and more, and are updated every three years. Jurisdictions amend the model codes as needed. Librarians seeking to provide access to codes will need to research what codes are used in their area, how often they are updated, and how they may be accessed. The information will typically be available via government agency websites. A number of current ICC codes can be read online for free through the ICC Digital Codes Library (<https://codes.iccsafe.org/>). For example, the state of Florida uses ICC-based codes, and they can be viewed online via the Florida Department of Business and Professional Regulation (https://floridabuilding.org/bc/bc_default.aspx) and the ICC Digital Codes Library websites. The FGCU Library also purchases the print version as a set of books for the Reference Collection every three years.

Construction Cost Data

Cost data is critical for construction managers as they prepare budgets and estimates. Faculty and students often need access to this data to complete assignments and research projects. Construction costs generally consist of materials, labor, and equipment and are expressed in terms of units, assemblies, or square feet (About RSMeans . . . 2020). The most well-known publisher of construction cost data is RSMeans. The company publishes data annually in print books, e-books, and CDs, as well as through their online database RSMeans Data Online. At this time, the e-books do not appear to be feasible for library acquisition, and very few libraries subscribe to RSMeans Data Online. Therefore, purchase of print books may be a cost-effective way for libraries to provide access to this data. At the FGCU Library, *Building Construction Costs* (RSMeans 2019b), *Assemblies Costs* (RSMeans 2019a), and *Square Foot Costs* (RSMeans 2019c) were identified as useful titles to purchase in print to support the Construction Management bachelor's program. Other titles provide cost data for electrical, plumbing, mechanical, and renovation projects, among others. The most recent edition can be kept in Reference where students can scan or photocopy relevant sections, while older editions can be moved to the circulating collection. Another important source for cost data is *Walker's Building Estimator's Reference Book* (Frank R. Walker Company 2017). This well-established resource

has been published annually since 1915. Again, it may be useful to have the most recently published copy on hand in Reference, with superseded editions available for circulation.

Books

Construction management books are often classified in Library of Congress classes HD (Industries. Land use. Labor) and TH (Building construction). *Construction Management JumpStart* ([Jackson 2010](#)), now in its 2nd edition, is a popular introduction to the field. Handbooks published by McGraw-Hill, RSMMeans, CRC, and others may be useful. Construction managers must understand construction drawings and building information modeling (BIM), so manuals on relevant software, such as AutoCAD and Revit may be helpful to have in the collection. Students may appreciate having access to the latest copy of the *MasterFormat* manual ([Construction Specifications Institute 2018](#)), which is a sort of controlled vocabulary for construction documents and communications. Other topics of interest include construction safety, construction technology, history of construction, business management, and legal issues in construction. Finally, sustainability is of major interest to the architecture, engineering and construction industry, and numerous books are available on topics such as sustainable building materials, LEED certification, zero-energy building, and more.

Databases

A number of databases traditionally licensed by libraries may be useful for construction management research. In addition to multidisciplinary article databases such as Web of Science, business-specific databases like ABI/INFORM and legal databases like Westlaw are recommended. Due to construction management's overlap with architecture and engineering, databases relevant to those fields, such as the Avery Index to Architectural Periodicals and Engineering Village may be helpful. In addition, librarians may wish to explore subscriptions to the following databases that are more specific to construction:

ASCE Library (<https://ascelibrary.org/>) - Provides access to all ASCE publications, including the journals discussed above. Conferences, e-books, standards, and other items in ASCE Library are relevant to construction management as well.

ASTM Compass (<https://www.astm.org/Standard/enterprise-compass.html>) - Provides access to standards documents related to buildings and materials from ASTM International, formerly known as the American Society for Testing and Materials.

BuildingGreen (<https://www.buildinggreen.com/>) - Provides access to reports, articles, product guides, and other information related to sustainable design, building and architecture.

Conclusion

Overall, I feel that two factors have made the development of this new collection successful. The first is close collaboration with faculty from the outset of the program. The second is specific communication about what the library has to offer to support student and faculty success. Faculty run the gamut from enthusiastically collaborating to barely considering the library's existence, so providing concrete examples is key. Instead of general offers to "buy books" or "provide instruction," share actual lesson plans and e-books that already exist in the collection and could support classes. Offer to provide a tour of the library and explain the different collections. Targeted communication on what the library has to offer a given program will usually elicit a positive response. Faculty have the subject expertise, while librarians are well-versed in

publishers, resources, and access models. Working together, we can build relevant and useful collections that contribute to student success.

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