Collecting Standards for Scholarship, Organization, Industry, and Innovation

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What are standards?

A standard is a document that has been developed and established within the consensus process of the society. [ASTM]

A standard is a technical document designed to be used as a rule, guideline... It is a consensus-built, repeatable way of doing something. [European Committee for Standardization-CEN]

A standard is an agreed way of doing something. It could be about making a product, managing a process, delivering a service or supplying materials- standards can cover a huge range of activities undertaken by organizations and used by their customers. [BSI]

A standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose.[ISO]
Designation: F2900—11

Standard Guide for Characterization of Hydrogels used in Regenerative Medicine

Active Standard ASTM F2900

This standard is issued under the fixed designation F2900; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

In this standard:

Section 1 Scope
Section 2 Referenced Documents
Section 3 Terminology
Section 4 Significance and Use
Section 5 Key Terms for Hydrogel Characterization
Why are standards important?

Standards provide people and organizations with a basis for mutual understanding, and are used as tools to facilitate communication, measurement, commerce and manufacturing. Standards are everywhere and play an important role in the economy, by: facilitating business interaction. As important to basic business transactions as to technical environments.

Industrial standards are identified by test methods, guidelines, recommended practices, codes, specifications, manuals, provide certification; also trade associations issue standards

Role of NISO (National Information Standards Organization) & ANSI (American National Standards Institute) – approval body for domestic standards & rep to ISO (International Standards Organization)
Types of Standards

Standards in categories
Standards could be by country National, for Example: BSI, Japanese standards

They could be International for Example: ISO Standards

Standards by Organization For Example: ASTM

Standards by Function

Specification

Test Methods and Analysis
Standard Test Method for Rapid Field Test for Trace Lead in Unleaded Gasoline (Colorimetric Method) ASTM D3348

Code of Practice
Standard Practice for Detailed Clinical Observations of Test Animals. ASTM E2045-99
Types of Standards Contd.

Governmental  e.g Federal Agencies

Medical Device  for Example
Standards on Accessibility

**AAMI STBK13-1/STBK13-1-CD**

**STANDARD** by Association for the Advancement of Medical Instrumentation, 2013.

**LANGUAGES:** English

**HISTORICAL EDITIONS:** AAMI STBK12-1/STBK12-1-CD, AAMI STBK11-1, AAMI STBK06-1

Industry Specific
Standards that enable better communication between manufacturers, designers and suppliers in the co-design, procurement and use of semiconductor products.
Title: IEC* 62258 - 'semiconductor die products: requirements for procurement and use'

National Institute of Standards and Technology Mission to promote innovation and industrial competitiveness

Finding Aids -World Standards Services Network (WSSN)

World Standards Services Network (WSSN), is a network of publicly accessible World Wide Web servers of standards organizations around the world.

Techstreet

IHS Markit™
Publishing & Issuing Standards

- Versions, Editions & Updates are critical
- Know the source or issuant of needed standard
- Redlines – indicates & compares the changes made during the standards revision process between the active standard & previous edition. Noted are additions, deletions & content revisions with dates.
Key Sources of Standards

Government Agencies - MilSpec, NISO, NIST
Corporate entities - such as Underwriter’s Laboratory
Engineering Societies - ASME, IEEE, SAE, ASHRAE, SAE, ASTM, ASCE
Standards organizations - ANSI, ASTM
Trade associations such as Home Appliance Manufacturers
International standards, such as ISO
  ○ Upon publication given acronym of the organization with a number and year, such as ASCE 36-2001.
Key publishers of standards: it’s all about acronyms
Standards in the Engineering Curriculum

“Students must be prepared for engineering practice through a curriculum culminating in a major design experience based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple realistic constraints.”

ABET “Criteria for Accrediting Engineering Programs, 2018 – 2019”
Standards on Campus

Other active users of standards on our campuses:

● Innovation centers
● Hospitals
● Law and policy centers
● Regulation and compliance issues
● Library school students
● Campus design and planning office, ergonomics office
● Accessibility offices
● Campus food service
How to Obtain Standards

**IBR Portal**  (Incorporated by Reference in the U.S. Code of Federal Regulations) - free to view; fee for print

**Ansi.org, Techstreet, IHSMarkit, Global SAI, ISO**

Order direct or via standards vendor; check prices
Licenses vary, check with acquisitions, copyright offices
Some offer deposit accounts, PDF downloads, print
NFPA - unique in that online viewing is free; fee for print.
LibGuide to keep track - UT Austin and guides.library.cornell.edu/standards
University of California, Irvine
California Digital Library

CDL co-investment of 7 campuses that participate in annual subscriptions to ASTM Digital Library, IEEE standards on Xplore, and locally to several other Engineering Society issued standards, ie) SAE. Can occasionally borrow from other campuses on ILL.

Recommend & maintain finding aid at https://guides.lib.uci.edu/standards_and_specs
Additional Standards

- Majority of needs are for ISO standards – ordered on an “as needed” basis from IHS & ANSI.
- Costs are covered by library’s Engineering Collection/Materials funds. Standards ordered by Acquisitions Dept in PDF and link given to campus user – not added to library collection.
- Spend approximately $1600/yr.
- Proves to be cost-effective. Can use debit account or credit card/PalCard for purchase.
Standards on Demand

Deposit Account with a Standards provider IHS. Order standards as requested. Electronic preferred. Standards sent to requestor. No cataloging, no addition to the collections. In case of print only, then it will be cataloged, before lending.

Meet with Julie

Research Librarian
jaarendt@vcu.edu
(804) 828-1539

Ibironke Lawal
Collections Librarian
ilawal@vcu.edu
(804) 828-8739

Standards

VCU has some standards online. Direct requests for others to Ibironke Lawal, Engineering and Science Collections Librarian, at ilawal@vcu.edu or 804-828-8739.

- ASTM Compass
  Industry-leading standards and technical engineering information. A pop-up box allows for free, full-text access to a standard.
- IEEE Xplore
  Comprehensive collection of articles, proceedings and standards in electrical engineering, computer science and electronics.

Ask Us
Cornell University
Libguide, Ordering Process

Have ASTM and IEEE in online packages;

Libguide has finding aid.

guides.library.cornell.edu/standards

The rest ordered on demand.
Ordering Process

Most requests come from schools of Engineering, Architecture, Design and Environmental Analysis on materials, safety, energy-efficient buildings, lighting, etc.

Order **print copies only** from IHS Markit and ANSI; rapid delivery with FedEx. Vendor sends us an invoice. Catalog print standards, allow patrons to check out.

Shelve standards in reference so they don’t go out on **interlibrary loan**.

Used to order PDFs, but DRM, copyright restrictions don’t permit sharing and copies were watermarked with personal name of purchaser.
Syracuse University
Standards Collections

ASTM Standards

ASTM Standards are available through the ASTM Standards and Engineering Digital Library.

ASHRAE Standards

Standards available from the SU Libraries

The Syracuse University Libraries Libraries owns a very limited number of standards in print and has access to ASTM Standards and ASHRAE Standards online. There are also individual standards available online through TechStreet. Check here for your standard or search the library catalog for your standard in print. If not available, please contact Emily Hart to request standards for purchase.

Search for Standards

While most do not provide open access to the full text of their standards, these organizations do provide searchable indexes:

- American National Standards Institute (ANSI)
- American Society for Testing and Materials (ASTM International)

http://researchguides.library.syr.edu/standards
On Demand

- Individual standards via TechStreet
- Users request from Engineering Librarian
- Libraries adds the individual standard to the online subscription for the remained of the contract
- Paid by engineering one-time budget line
- At point of renewal, all individual standards are removed from TechStreet leaving only the ASHRAE collection
Questions?
Further Reading


More Resources

These resources were shared by session attendees:

- Linda Hall Library has standards available via ILL - https://www.lindahall.org/
- IEEE has a standards development simulation game, Mars Space Colony: A Game of Standardization - https://www.standardsuniversity.org/game/
- The ANSI University Outreach Program allows for complimentary access to certain standards for classroom use - https://www.ansi.org/education_trainings/university_outreachhttps://www.ansi.org/education_trainings/university_outreach