This guide (www.marshall.edu/library/guides/forensic.asp) is developed specifically for those doing research in forensic science. It provides a recommended list of resources, encompassing print materials, electronic databases, and selected Internet resources. All areas of forensic science are covered, with particular emphasis on DNA analysis, forensic chemistry, and Computer Forensics.

Because forensic science draws from a variety of disciplines—including chemistry, physics, biology, molecular biology, physical anthropology, law, computer science, criminology, pathology, engineering, psychology, and pharmacology—you may need to consult resources in those fields also.

Marshall University Forensic Science webpage is an excellent resource: www.marshall.edu/forensics.

For research help, contact Tim Balch, at 304-696-2335, or by e-mail at balch@marshall.edu.

Use MILES, the Marshall University Libraries online catalog to locate materials in the libraries. You can do a Basic Search by author, title, or subject if you have them. Or, do a Keyword Search. If you find a good book on your subject, look at the "full" record to see what subject headings are used; you can click on the heading to find other records on that subject. The following subject headings are examples of terms that can be searched:

- Chemistry, Forensic
- Computer Crimes - Investigation
- Crime Laboratories
- Criminal Anthropology
- Criminal Behavior
- Criminal Investigation
- Criminal Psychology
- Death - Causes
- DNA Fingerprinting
- Evidence, Criminal
- Evidence, Expert
- Fingerprints
- Forensic Ballistics
- Forensic Entomology
- Forensic Genetics
- Forensic Medicine
- Forensic Pathology
- Forensic Sciences
- Forensic Scientists
- Homicide Investigation
- Interviewing In Law Enforcement
- Legal Photography
- Medical Jurisprudence
- Murder Investigation
- Police Questioning
- Writing Identification

For additional useful subject headings for your topic, consult the Library of Congress Subject Headings set, available in the Drinko Library Reference Collection.

For books at other libraries, search Library catalogs over the Web. Books not owned by the Marshall University Libraries may be delivered to Marshall students from other libraries using our Information Delivery Services (IDS).

National Criminal Justice Reference Service Full-Text Publications (NCIRS)
Searches the web sites for the NCIRS, U.S. Department of Justice, Office of Justice Programs, and the White House Office of National Drug Control Policy for full-text publications.

National Academies Press
Free online versions of more than 3,000 books published by the Press (you can also buy print or PDF versions). A search on "forensic" brings up titles like The Evaluation of Forensic DNA Evidence, DNA Technology in Forensic Science, and Black and Smokeless Powders: Technologies for Finding Bombs and the Bomb Makers.

Dissertation Abstracts
Doctoral dissertations and master's theses from over 1,000 institutions. Dissertations back to 1861 have bibliographic entries, those since 1980 add abstracts, and those since 1997 have 24 page previews and can be purchased in PDF format. Masters' theses are included since 1988.
Journal and Magazine Articles
The online databases and indexes listed here will provide references to articles (or in some cases full-text articles) in a wide range of periodicals, from news magazines and newspapers to scholarly and professional journals. Your librarian can help you choose the best database or index. If you are off-campus and having trouble getting in to a database, see the "Use Databases Off-Campus" page for help.

NOTE: Access to these databases is generally limited to MU students, faculty, and staff (due to our licensing agreements).

Full-Text Databases

Academic Search Premier
This comprehensive database features full text for nearly 4,600 journals (with some dating back to 1990); abstracts and indexing for over 8,000 journals; and coverage of The Wall Street Journal, The New York Times, and The Christian Science Monitor.

Hint: Because of its wide coverage, Academic Search Premier is a good starting point for articles and you should begin searching there. Remember, articles that aren't available as full-text or page-image may be available elsewhere in the Library. Use the MU Periodicals search engine to check.

Wiley Interscience
Covers over 1,000 journals, major reference works, and online books published by John Wiley and Sons, Inc., with emphasis on the sciences, medicine, and law.

Kluwer Online
Articles in a variety of disciplines, including the biological sciences, chemistry, computer and information science, law, and medicine.

Westlaw
Includes the full text of a legal encyclopedia, opinions of federal and state courts, and federal and state laws and regulations. Search by keywords or case name. Excellent source for how forensic science is actually used in legal proceedings.

JSTOR: the Scholarly Journal Archive
Provides full text access to older issues of core journals, generally back to the first issue. The latest two to five years of a journal may not be available, but this is a great source for older articles not included in such indexes as Academic Search Premier. The most useful set of journals for forensic science is the "Statistics" discipline.

Indexes and Bibliographic Databases
Unfortunately, there is no one index that covers all forensic science journals. Some journals are only in one index, some are selectively covered by several indexes, and some are only indexed on the publisher's web site; so you will need to try more than one source. The following databases and indexes will provide citation information (author, article title, periodical name, volume and issue, date) for articles, essays, book chapters, dissertations, and other materials. You can then use that information to see if the item is in the MU Libraries by searching the MILES catalog, or—if the item is not owned by us—order it from another library using the IDS.

Medline (available from three different providers)
Produced by the National Library of Medicine, this abstracts articles from over 4,600 current biomedical journals, covering such areas as medicine, dentistry, and pre-clinical sciences. Uses Medical Subject Headings (MeSH), so start with a keyword search and look at the records to find appropriate subject headings. (Very limited number of full-text articles in the PubMed version.)

Biological Sciences
Abstracts and citations (back to 1982) from over 6,000 sources (journals, conference proceedings, reports, and books) in biomedicine, biotechnology, zoology, and related fields.
Basic BIOSIS
Covers over 350 basic core life science journals aimed at undergraduate non-biology majors; includes both scholarly and popular titles. Database has current year and most recent four years, updated monthly.

TOXLINE
Abstracts and citations from almost 300 sources (journals, conference proceedings, reports, and books) in toxicology, back to 1999.

Government Periodicals Universe
Covers about 170 titles of substantial research value published by the U.S. government (such as the FBI, Executive Office for U.S. Attorneys, and Air Force Research Laboratory). Updated quarterly.

National Criminal Justice Reference Service Abstracts Database (NCIRS)
More than 180,000 criminal justice publications are included. Documents published by NCIRS sponsoring agencies since 1995 have links to full text.

MarciveWeb DOCS
Index of U.S. government publications since July 1976.

AFTE Journal Keyword Index  www.afte.org/ExamResources/journalindex.htm
A volunteer effort, this is the only index to the Association of Firearm and Tool Mark Examiners journal and newsletters.

Search by keyword/author or browse tables of contents from 1981 to the present.

Science and Justice Index  www.forensic-science-society.org.uk/publications/saj.html
Tables of contents for the last four years and a searchable index for this Forensic Science Society journal.

Selected Periodicals
Click on the Periodical Title to see MU library holdings in all formats. This is not an exhaustive list of journals you may find useful, just a starting point. (Peer-reviewed) designates periodicals that are scholarly and use a pre-publication review process. "Refereed" is another term used to indicate these scholarly reviewed periodicals.

Journal of Forensic Sciences  (Peer-reviewed)  PER/RA1001.J68

Articles on theoretical and applied aspects of analysis, modern instrumentation, and other topics of interest to analytic chemists.

Crime and Clues: the Art and Science of Criminal Investigation
Online collection of articles.

Crime Laboratory Digest  J 1.14/18:  Government Documents
Published by the Federal Bureau of Investigation laboratory in cooperation with the American Society of Crime Laboratory Directors.

FBI Law Enforcement Bulletin  HV6201 .F2 Drinco Reading Room and Drinko Media
Published by the Federal Bureau of Investigation, this deals with all aspects of law enforcement.

Forensic Science Communications
Online quarterly publication of the Federal Bureau of Investigation, with online access back to the first volume (1999).
Reference Sources

Covers the major scientific techniques and devices used by forensic scientists, as well as notable criminals and crimes.

Three volume set written for the layperson rather than the expert. There are more than 250 signed articles with bibliographies.

Four volume set covering the entire criminal justice system. The focus is on the current situation in the United States, although other countries, issues, and times are included. The signed articles have bibliographies.

Short definitions, and summaries of Supreme Court cases affecting criminal justice.

Handbook for federal judges on how to recognize "the characteristics and reasoning of 'science' as it is relevant in litigation." The first edition, Handbook of Forensic Science, is in the Government Documents collection, call number J 1.14/16:F76/994/POCK.

ATF Arson Investigative Guide. T 70.8:AR 7/2004 Gov. Documents
Manual on investigating fires written by the federal Bureau of Alcohol, Tobacco, Firearms and Explosives.

Results of a study that identified, described, and put together a standard set of 29 investigative tasks to be performed at a death scene.

Guide to the recognition, collection, and preservation of electronic evidence (such as computer systems, memory cards, and digital cameras) in various crime scenes.

Second in a series, this guide is for those actually examining digital evidence. Covered are policy and procedure development; evidence assessment, acquisition, and examination; and documentation and reporting.

Designed as a resource, not a standard, for those building a new facility, redoing an existing facility, and moving a laboratory. The PDF version on the web does not have the appendices; see the print version for the complete text. A plain text version (without figures, charts, forms, or tables) is also available.

Report that examines the history of DNA testing and tries to predict the technological advances that will affect forensic DNA analysis. A general section with nontechnical language is followed by detailed technical appendices.


Internet Resources
The Web provides a tremendous number of resources for research on forensic science. It is essential that you use a good search engine (such as Teoma, HotBot, Alta Vista, Excite, and Google), a directory site (such as the Librarian's Index to the Internet, About.com, Yahoo!, the Scout Report, and INFOMINE), or one of the forensic science gateways. These are some useful sites to get you started:

Gateway and Collections
Forensic Science Resources on the Internet [www.itil.org/03-spring/internet.html]
An excellent webliography written for librarians serving a scientific or technical audience, and anyone interested in forensic sciences. Entries have extensive descriptions.

Zeno’s Forensic Site [forensic.to/forensic.html]
A comprehensive and widely recognized site, developed by Zeno Geradts, a forensic scientist at the Netherlands Forensic Institute of the Ministry of Justice.

Reddy's Forensic Page [www.forensicpage.com/]
Another excellent and often cited site. Reddy Chamakura is a forensic scientist with the Police Laboratory, New York City Police Department.

Forensic-Evidence.com [www.forensic-evidence.com/site/MasterIndex.html]
Bills itself as "an information center in forensic science, law and public policy for lawyers, forensic scientists, educators, and public officials." Lots of articles and an extensive set of links.

Kruplick's Forensic Resource and Criminal Law Search Site [www.kruglaw.com]
Over 1,500 links arranged by forensic specialty, put together by a California attorney.

Kulesh's Digital/Cyber/Computational Forensic Page [http://isis.poly.edu/kulesh/forensics/list.htm]
Produced by a doctoral student in computer science at the Polytechnic University, Brooklyn, New York, this is a plain site with lots of links.

Forensic Weblinks [www.gwu.edu/~forensic/resources/index.cfm]
Extensive set of links arranged by forensic subject from the George Washington University Department of Forensic Science.

Yahoo! Science>Forensics directory [dir.yahoo.com/Science/Forensic_Science]
Extensive set of links to sites related to forensic science and its various specialties. Sites are selected and evaluated by humans, not software.
Forensic Chemistry and Toxicology
Alan Barbour's Forensic Toxicology Page  www.abarbour.net
Guide to forensic toxicology links, experts, and laboratories.

Anil Aggrawal's Forensic Toxicology Page  members.tripod.com/~Prof_Anil_Aagrwal/index.html
Published by a professor of forensic medicine in New Delhi, India.

Mass Spectrometry Databases  www.ualberta.ca/~giones/mslib.htm
A project of the American Academy of Forensic Sciences' Toxicology Section, there are links to information on mass spectra of drugs and metabolites.

Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG)  www.swgdrug.org
An international group with the mission of recommending minimum standards for the forensic examination of seized drugs.

Crime Scene Investigation
Crime Scene Evidence Files  www.crimescene.com/
Presents fictional crime cases with weekly updates of evidence. Those who pay can interact directly with the investigators and use an evidence search engine; non-payers view evidence later, but can still post theories and questions to a discussion area.

Crime Scene Investigation.net  www.crime-scene-investigator.net/index.html
Sections on crime scene response, evidence collection, photography, articles, and links.

Bloodstain Pattern Analysis Tutorial  http://www.bloodspatter.com/bloodstain-tutorial
Tutorial on how to analyze the shape, location, and distribution pattern of bloodstains at crime scenes. There is also a computer program that will help with this task.

Forensic DNA Analysis
Frequently asked questions about DNA profiling  www.interpol.com/Public/Forensic/dna/dnafaq.asp
FAQ page from Interpol, the international police organization.

DNA Fingerprinting  http://www.dnalc.org/resources/animations/
Two animated tutorials give the science and application of DNA testing (requires Shockwave plug-in), plus links to related material.

How DNA Evidence Works  www.howstuffworks.com/dna-evidence.htm
Easily understood introduction to the process and application of forensic DNA analysis.

MITOMAP: a human mitochondrial genome database  www.mitomap.org/
Searchable database of "polymorphisms and mutations," along with several other databases, a bibliography, and several reports.

Forensic Mathematics  dna-view.com/
The web page for a consultant who applies mathematics to DNA identification, this has lots of information and links.

Forensic Entomology
A site created to give a basic knowledge of what insects of forensic importance look like, how to collect them, and what they mean to an investigation.
Fingerprints
Deals with latent fingerprints, latent print examination, and fingerprint identification.

International group working to establish guidelines for the training and development of friction ridge examiners, guidelines for quality assurance and quality control, and research on examination techniques.

Latent Print Examination: Fingerprints, Palmprints, and Footprints www.fpsociety.org.uk/
Sections for experts, police, and general information. Extensive links, especially to legal challenges of fingerprint evidence.

Firearms, Ballistics, and Explosives
FirearmsID.com www.firearmsid.com/
Non-profit site designed as an educational and an investigative aid. A good introduction to forensic firearm identification.

Firearms Tutorial: Internet Pathology Laboratory for Medical Education http://library.med.utah.edu/WebPath/TUTORIAL/GUNS/GUNINTRO.html
Produced by the Florida State University College of Medicine, this site aims to give doctors a working knowledge of firearms, ammunition, gunshot injuries, and the techniques used by forensic pathologists.

Page of links from the Federal Bureau of Alcohol, Tobacco, Firearms, and Explosives.

Forensic Microscopy and Imaging
Introduction to Optical Microscopy, Digital Imaging, and Photomicrography micro.magnet.fsu.edu/primer/index.html
Outstanding introduction to the optical microscope, physics of light and color, specialized techniques, digital imaging with optical microscopy, and stereomicroscopy. Links to microscope manufacturers.

Institute for Forensic Imaging www.ifi-indy.org/
A non-profit organization with the mission of improving the effectiveness of the investigation of crimes through training, consulting, research, and development activities. Works with the Informatics Research Institute, School of Informatics, Indiana University Purdue University Indianapolis.

Questioned Documents
Questioned Document Examination Page www.qdewill.com/
The basics of the specialty from a certified document examiner.

Identifont www.identifont.com
Identify an unknown font by answering a series of questions about it; or search by type, name, or designer.

Professional Organizations
American Academy of Forensic Sciences (AAFS) www.aafs.org/
Nonprofit professional organization that since 1948 has tried to apply science to the process of law. Membership is drawn from all areas of forensic science practice and research.

American Board of Criminalistics www.criminalistics.com
Certifying board for professional qualification in one or more areas of criminalistics. The Board of Directors has representatives from eight regional and national forensic organizations.

American Board of Forensic Entomology http://www.forensicentomology.com/info.htm
Certification organization for those "using insect evidence to uncover circumstances of interest to the law".
American Board of Forensic Toxicology  www.abft.org/
Certifies practitioners and specialists of forensic toxicology, and accredits laboratories that perform postmortem forensic toxicology or human performance toxicology.

Association of Firearm and Tool Mark Examiners  www.afte.org/
Professional organization for the advancement and certification of specialists in this area of forensic science.

Forensic Science Society  www.forensic-science-society.org.uk/
One of the oldest forensic societies, based in the United Kingdom. Publishes the peer-reviewed journal Science and Justice.

Forensic Toxicologist Certification Board  home.usit.net/~robsears/ftcb/index.htm
Offers certification in forensic toxicology, forensic alcohol toxicology, and forensic drug toxicology.

Microscopy Society of America  www.microscopy.org
Aims to increase and improve the science and practice of microscopy, imaging, and compositional analysis.

Mid-Atlantic Association of Forensic Scientists  maafs.org
Regional organization for those in West Virginia, Pennsylvania, and other Mid-Atlantic states.

Midwestern Association of Forensic Scientists  www.mafs.net Regional organization for those in Kentucky, Ohio, and other Mid-West states.

Society of Forensic Toxicologists  www.soft-tox.org/
Practicing forensic toxicologists and those interested in promoting and developing the field.

Establishes and maintains programs, protocols, and guides for the forensic investigation of fire, arson, and explosion scenes, and devices. Sponsored by the National Center for Forensic Science (NCFS)  www.ncfs.ucf.edu

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