


# Sonography

# Careers



**S**onography is an imaging process used to assist doctors in gathering data necessary to reach diagnostic decisions. Sonographers are highly skilled professionals qualified by technological education to provide patient services using diagnostic ultrasound under the supervision of a physician.

Sonographers direct non-ionizing, high frequency sound waves into areas of the patient's body; the equipment then collects reflected echoes to form an image. The image is viewed on a screen and may be recorded or photographed for interpretation and diagnosis by physicians.

Sonographers explain the procedure, record additional medical history and then perform the ultrasound examination. Viewing the screen as the scan takes place, sonographers look for subtle differences between healthy and pathological areas, decide which images to include and judge if the images are satisfactory for diagnostic purposes. A general sonography program (such as the LCCC program) provides training in abdominal (liver, kidneys, spleen and pancreas) and obstetrics/gynecology (the female reproductive system) with an introduction into vascular (blood flows). Sonographers may also specialize in other areas such as evaluation of the brain (neurosonography), blood flow (vascular), the heart (echocardiography) and the breast.

## Job Outlook

Employment of diagnostic medical sonographers is expected to increase by about 19 percent through 2016. As the population ages, increasing the demand for diagnostic imaging and therapeutic technology.

Additional job growth is expected as sonography becomes an increasingly attractive alternative to radiologic procedures, as patients seek safer treatment methods. Unlike most diagnostic imaging methods, sonography does not involve radiation, so harmful side effects and complications from repeated use are less likely for both the patient and the sonographer. Sonographic technology is expected to evolve rapidly and to develop many new sonography procedures, such as musculoskeletal, contrast studies and 3D- and 4D-sonography for use in obstetrics.

Hospitals will remain the principal employer of diagnostic medical sonographers. However, employment is expected to grow more rapidly in offices of physicians and in medical and diagnostic laboratories, including diagnostic imaging centers. Healthcare facilities such as these are expected to grow very rapidly through 2016 because of the strong shift toward outpatient care.

## Earnings

Median annual earnings of diagnostic medical sonographers were \$57,160 in May 2006. The middle 50 percent earned between \$48,890 and \$67,670 a year. The lowest 10 percent earned less than \$40,960, and the highest 10 percent earned more than \$77,520. Median annual earnings of diagnostic medical sonographers in May 2006 were \$56,970 in offices of physicians and \$56,850 in general medical and surgical hospitals.

## Related Programs

Radiologic Technology

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## Educational Opportunities in Sonography at LCCC

### *Associate of Applied Science in Diagnostic Medical Sonography*

This program prepares students to provide patient care and perform sonographic exams in order to obtain images to assist physicians in making diagnostic decisions. This program is fully accredited by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC/DMS), a division of the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Graduates of this program are eligible to take the national certification examination in sonographic principles and instrumentation, and specialty examinations in abdomen and in obstetrics and gynecology, which are given by the American Registry of Diagnostic Medical Sonographers.

*Note: Students must achieve a grade of C or better in all math, science and sonography courses taken as part of this program to meet program requirements satisfactorily.*

## Other Related Opportunities in Allied Health

- Certificate of proficiency in phlebotomy
- Associate of applied science in clinical laboratory science technology
- Associate of applied science in radiologic technology
- Associate of technical studies in nuclear medicine

## Educational Opportunities at LCCC through its University Partnership

### **Youngstown State University**

#### *Bachelor of Science in Applied Science Major in Public Health*

The Public Health major offers the Bachelor of Science in Applied Science (B.S.A.S.) degree. The public health program integrates classroom and experiential learning in many of its courses. Public health graduates are employed in public health agencies, non-profit organizations, hospitals and other health and care settings, and governmental agencies.

There are five standard areas in public health training that enable students to perform the essential services of public health. These are epidemiology, biostatistics, health services administration, environmental health and behavioral science/health education. The curriculum for the YSU bachelor's degree in public health addresses each of the five core areas through multiple courses. This curriculum enables mastery at the bachelor's level of the nationally recognized Public Health Core Competencies, and requires an internship tailored to the area of public health interests of each student. This contemporary major

also includes two 3 semester hour courses in bioterrorism, mass causality and crisis management in public health. Most of the professional courses for the degree can be completed through a combination of interactive videoconferencing and online distance learning options.

The B.S.A.S. in public health can also prepare the student to become a Certified Health Education Specialist (CHES). CHES assess individual and community health needs; plan and implement effective health education and health promotion programs; coordinate and manage the provision of health education and promotion services; effectively communicate health and health education needs, concerns and resources; and conduct program evaluation.

### *Bachelor of Science in Applied Science in Allied Health*

The baccalaureate degree program leading to the bachelor of science in applied science with a major in allied health is intended to serve professional health-related, associate-degree graduates who wish to upgrade their academic credentials.

### *Master of Health and Human Services*

The Master of Health and Human Services and Certificate in Health Care Management is a collaborative program between the College of Health and Human Services and the Williamson College of Business Administration. The program accommodates students from health and human service professions who require the skills and abilities for supervisory/managerial positions or who desire competence in health promotion. The program is structured as a weekend-college program with classes offered Friday evenings and on Saturday during the day. After completion of an academic core of course work, students may concentrate in either health promotion or administration for health and human service professions.

### *Certificate in Health Care Management*

The Certificate in Health Care Management is a collaborative program between the College of Health and Human Services and the Williamson College of Business Administration. The program accommodates students from health and human service professions who require the skills and abilities for supervisory/managerial positions or who desire competence in health promotion. The program is structured as a weekend-college program with classes offered Friday evenings and on Saturday during the day. After completion of an academic core of course work, students may concentrate in either health promotion or administration for health and human service professions.

## About Lorain County Community College

Lorain County Community College is one of Ohio's leading colleges delivering distance learning education via the Internet. The College has expanded its delivery of its programs and services through the opening of the Learning Center at St. Joseph Community Center in Lorain, the LCCC Wellington Center, Lorain County Growth Partnership in downtown Elyria and the Midpoint Campus Center in Brunswick. Partnerships with Lorain County's K-12 school districts have also led to important developments for the community. More than 1300 high school students participate in the Post Secondary Enrollment Options program by enrolling in LCCC classes, making LCCC the state's largest community college provider of PSEO. More than 35 percent of Lorain County's top high school graduates choose to attend LCCC.

LCCC is one of Ohio's fastest growing colleges because of the variety of learning opportunities it provides. Students can choose from more than 80 educational programs. Students can complete the first half — and sometimes more — of a bachelor's degree. The University Partnership brings eight universities to the LCCC campus offering 37 bachelor's and master's degree programs. With the University Partnership at LCCC, the College partners with the state's finest universities to bring the best in bachelor's and master's degree programs right to the LCCC campus. Students can earn degrees that get them jobs immediately. Students can upgrade, retrain and improve current life skills. Students can learn in the classroom, at home and over the Internet.

LCCC offers a complete college experience. We understand that there's more to college life than attending classes. We offer many of the programs, sports, and activities available at large four-year universities and colleges. But, students will not have to stand in line behind juniors and seniors in the classroom, on the playing field, or in leadership positions. Students can immediately act in a play, sing in a musical group, serve as editor for the college newspaper, plan social activities, compete on the playing field, or set policy as a student government member.

In addition to providing a great education for those who enter college with aspirations of a degree, LCCC helps those who have changed their career goals, who want to broaden their horizons, and who want to return to work. LCCC provides learning and training for those who want to move up but find they need new or improved skills for the kind of professional opportunities they seek.

LCCC faculty is recognized locally and nationally for their work as professors and in other areas. They all have advanced degrees and real-world experience and understand their primary responsibility at LCCC is to teach classes. Classes are small. Individual attention is plentiful.

An LCCC education, prepares students for real jobs and real futures. To find out more, call (800) 995-LCCC or visit LCCC's Connections Center, the Learning Center at St. Joseph Community Center in Lorain, the LCCC Learning Center in Wellington, the Lorain County Growth Partnership in downtown Elyria or the Midpoint Campus Center in Brunswick for all of your enrollment service needs, including admissions, registration, advising and counseling.



**Lorain County  
Community College**



**The University  
Partnership**

*of Lorain County Community College*

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