



DISCIPLINE DESCRIPTION

BIOMEDICAL SCIENCES

ACTIVE TEACHING DISCIPLINES

For administrative use only; please do *not* edit federal NCES information below.

CIP Code	Title	Definition
26.0102	Biomedical Sciences, General.	A general, program that focuses on the integrative scientific study of biological issues related to health and medicine, or a program in one or more of the biomedical sciences that is undifferentiated as to title. Includes instruction in any of the basic medical sciences at the research level; biological science research in biomedical faculties; and general studies encompassing a variety of the biomedical disciplines.
51.1005	Clinical Laboratory Science/ Medical Technology/Technologist.	A program that prepares individuals to conduct and supervise complex medical tests, clinical trials, and research experiments; manage clinical laboratories; and consult with physicians and clinical researchers on diagnoses, disease causation and spread, and research outcomes. Includes instruction in the theory and practice of hematology, clinical chemistry, microbiology, immunology, immunohematology, physiological relationships to test results, laboratory procedures and quality assurance controls, test and research design and implementation, analytic techniques, laboratory management, data development and reporting, medical informatics, and professional standards and regulations.

Note: More information on the National Center for Education Statistics (NCES) Classification of Instructional Programs (CIP) taxonomy is available at <https://nces.ed.gov/ipeds/cipcode/>.

The qualifications described below represent commonly accepted good practices for teaching in the discipline(s) represented in the unit.¹

Section 1. General description of the unit, including academic programs and course offerings²

The Burnett School of Biomedical Sciences offers baccalaureate degree programs in biomedical sciences, biotechnology, molecular and cellular biology, and molecular microbiology designed to prepare students for admission to professional or graduate degree programs, while the school's baccalaureate degree program in medical laboratory sciences provides training for students to work in clinical or hospital laboratories. The school also offers master's degree programs in biomedical sciences and biotechnology as well as an interdisciplinary doctoral degree program in biomedical sciences. Students are served by faculty whose areas of expertise include cancer research, immunology and pathogenesis, metabolic and cardiovascular research, molecular biology and microbiology, and neuroscience. The school also benefits from close ties to the university's College of Optics and Photonics and the NanoScience Technology Center.

Section 2. Qualifying degree(s) for each discipline taught in the unit³

A terminal degree in the teaching discipline qualifies a faculty member to teach throughout the broad scope of the teaching discipline at the undergraduate and graduate levels.⁴

Biomedical Sciences

The doctoral degree (e.g., Doctor of Philosophy) with a major in the biomedical sciences represents the terminal degree in the discipline.

Medical Laboratory Sciences

The master's degree (e.g., Master of Science) with a major in clinical laboratory science, medical laboratory science, or medical technology represents the qualifying degree for teaching in the discipline.

Section 3. Broadly related discipline(s) for each discipline taught in the unit

Specialization qualifies a faculty member to teach throughout the broad scope of the teaching discipline (typically five or more courses on distinct topics).

Faculty members with a degree at the appropriate level (master's for undergraduate, doctoral for graduate) in the following disciplines may be qualified to teach across the broad scope of the school's offerings:

- Biochemistry, biophysics, and molecular biology
- Biomathematics, bioinformatics, and computational biology
- Biotechnology
- Cellular biology and anatomical sciences
- Genetics
- Microbiological sciences and immunology
- Molecular medicine
- Neurobiology and neurosciences
- Pharmacology and toxicology
- Physiology, pathology, and related sciences

Section 4. Selectively related discipline(s) for each discipline taught in the unit

Specialization qualifies a faculty member to teach a restricted set of courses in the teaching discipline (typically four or fewer courses on distinct topics).

Faculty members with a degree at the appropriate level (master's for undergraduate, doctoral for graduate) in the following disciplines may be qualified to teach courses related to their area of specialization:

- Botany and plant biology
- Chemistry
- Zoology and animal biology

Section 5. Justification for use of faculty members with “other” teaching qualifications and additional information⁵

The school considers other teaching qualifications in conjunction with or in lieu of academic credentials on a case-by-case basis. This is acceptable in special cases in which evidence of a faculty member's exceptional industry experience, research, or other qualifications can be documented, and in which those qualifications are directly applicable to the course or courses being taught.

1. The unit chair or director, in consultation with unit faculty members, is responsible for identifying and articulating commonly accepted good practices in each of the unit's teaching disciplines and for providing appropriate justification as needed. In the case of an emerging discipline for which common collegiate practice has not yet been established, a compelling case must be made, as necessary, to substantiate the claims presented.

2. Please provide a general description of the unit's course and program offerings at the undergraduate and graduate levels (e.g., degree and certificate programs, minors, unit contributions to interdisciplinary core courses). This section may also be used to provide other pertinent information about the unit and the discipline(s) it represents (e.g., discipline accreditation, faculty research emphases).

3. For each discipline taught in the unit, please list those degrees that are regarded by the respective disciplinary community as terminal degrees in the discipline and thus qualify a faculty member to teach throughout the broad scope of that discipline at the undergraduate and graduate levels. In most fields, a terminal degree is the commonly accepted highest degree in the given field of study. In such instances, the terminal degree is usually considered to be the academic (or research) doctorate (e.g., Doctor of Philosophy). However, some academic fields have, through custom, recognized terminal degrees that are not doctorates (e.g., Master of Fine Arts). Note that terminal degrees in other disciplines may also be appropriate for teaching in the discipline, but such credentials should be listed as broadly or selectively related degrees, as appropriate.

4. A nonterminal master's degree in the teaching discipline qualifies a faculty member to teach throughout the broad scope of the teaching discipline at the undergraduate level but not at the graduate level.

5. Please use this section to provide justification that helps to make the case for special circumstances that apply to the unit, including the use of faculty members qualified to teach by "other" means. Typically, the statements provided in this section should be of a general nature and should not address specific individuals. (Justification for specific individuals is typically handled separately during the teaching certification process.) Please cite appropriate authorities as needed to justify the unit's practices (e.g., discipline accreditation guidelines, governmental regulations).

When a faculty member cannot be qualified to teach on the basis of academic credentials (i.e., degrees, course work) alone, qualifications other than academic credentials (or combined with academic credentials) that are appropriate for teaching particular courses may be taken into consideration. Such consideration of other teaching qualifications in conjunction with or in lieu of academic credentials must be made on a case-by-case basis. These cases should be exceptional, and the evidence provided of other demonstrated competencies and achievements must be compelling. They should also show significant evidence of professional progress as related to the faculty member's teaching assignment.