

Canadian Forestry Accreditation Board

CURRICULUM CRITERIA

The following criteria for curriculum content are designed to ensure that graduates have received a strong grounding in forest science and can perform at a professional entry level in general forestry practice, with additional academic background in one of the five identified practice areas. Emphasis is on forest sciences with appropriate foundation in basic, social and quantitative sciences complemented by a variety of other studies to provide graduates with a range of technical and social skills.

An evaluation of program goals and objectives, courses, course content, staffing and facilities will be carried out through a site visit by a team of individuals appointed by CFAB, who will be provided with a comprehensive statement prepared by the forestry unit according to directives detailed by the accreditation process.

The CFAB will consider these criteria in the reaching of an accreditation decision and will give positive consideration to well-considered innovation in forestry education. The subject matter embodied in the criteria described below may be covered in different ways. What may be a separate course at one university may be parts of multiple courses at another.

To satisfy accreditation requirements, a forestry program must ensure that students receive the following curriculum components, the elements of which are elaborated in the CFAB's *Academic Standards for the accreditation of degree forestry programs in Canada* (hereinafter referred to as "the Academic Standards"). Each forestry program must ensure that essential coverage of each competency has been addressed and presented to the student as part of the learning opportunity. Evidence must be available to indicate that all graduates will have met, or exceeded, performance evaluations as elucidated by the listed competencies.

Professional Studies (Standards 1-3)

The professional standards are comprised of competencies grouped under:

- Foundational Studies (Standard 1);
- Communications, Critical Reasoning, and Leadership (Standard 2); and,
- Professionalism and Ethics (Standard 3).

Professional foresters require a breadth of knowledge, encompassing aspects of arts, sciences, and humanities, to fulfill their duties as forest stewards mandated to act in the interest of the public. Clear and concise oral and written communication skills are essential to be able to articulate goals, objectives, information and decisions to a wide range of audiences, including the public, Indigenous Peoples, stakeholders and professionals. Leadership requires the ability to effectively use communication and reasoning skills to inspire higher standards of practice and to contribute positively to society through initiative and collaborative problem solving. Critical reasoning skills are required to analyze complex ideas and provide advice to a range of clients. Professional foresters serve the public interest and must understand the role of the profession, practice with integrity, and be competent, independent and accountable for their actions and decisions.

Functional Studies (Standards 4-7)

The forestry functional standards are comprised of competencies grouped under:

- Trees and Stands (Standard 4);
- Forested Landscapes (Standard 5);
- Information Acquisition and Analysis (Standard 6); and,
- Planning and Administration (Standard 7).

Knowledge of tree biology and stand structure and dynamics forms the basis for understanding how forested ecosystems function and for predicting the effects of natural disturbances and human intervention. Knowledge of composition, structure and function of forests and urban forests at scales ranging from aggregates of stands to landscapes is essential to describe and to evaluate current conditions, to predict the effects of environmental change, and to practice conservation and management. Developing comprehensive measurement and sampling skills provides professional foresters with an ability to collect information and understand sources of uncertainty that affect data reliability. Managing forest resources requires knowledge of the principles of resource allocation and the economic, policy and administrative forces that influence forest practices.

Contextual Studies (Standards 8a – 8e)

Five contextual (practice) areas are recognized under Standard 8:

- Forest Management (8A);
- Natural Resources and Ecosystem Management (8B);
- Urban Forestry (8C);
- Forest Operations (8D); and,
- Ecological Restoration and Management (8E).

Strategic and operational planning are important components of the practice of forestry. The listed areas provide context for demonstrating strategic and operational planning competencies. It is expected that a program seeking accreditation would be organized so as to provide at least one of these contexts for demonstrating achievement of the requisite planning competencies.

Other Requirements

To be considered for accreditation, a Baccalaureate forestry program must lead to a science-based degree of a minimum of eight (8) full time terms or equivalent in duration. One academic term is taken to consist of a minimum of twelve (12) weeks of instruction, over and above periods allotted to

examinations. Eight terms are considered to be the equivalent of four (4) academic years. A typical term will be made up of 15 credit hours. Variation

in term and program lengths will be considered on the basis of equivalent exposure and content.

To be considered for accreditation, a Master 's program must demonstrate that the combination of undergraduate experience and the graduate course work completed by students in that program provide at least the same level of outcomes expected from graduates of an accredited Baccalaureate program.

Appropriate practical experience, in the field and the laboratory, must be an integral component of any forestry program.

For some programs, all or a portion of the foundational studies (Standard 1) may be covered through prior education. This circumstance must be addressed in the admission policies of these institutions.

Policies for admitting students with advanced standing, including transfers from other institutions, must ensure that the applicable academic standards of the program are met.

PROGRAM OUTCOMES CRITERIA

It is essential that graduates from forestry programs possess a range of skills and competencies that will enable them to carry out, at an entry level, the wide variety of activities expected of a professional forester. These skills and competencies are specified in the CFAB's *Academic standards for the Accreditation of Degree Forestry Programs in Canada*. Forestry programs must be able to demonstrate that their graduates have achieved competence in the areas which satisfy the criteria for accreditation.

Program Environment Criteria

Emphasis is placed on qualitative evaluation of the program and the overall environment in which the program is presented.

Central importance is attached to the quality of the educational experience as reflected by the quality of the students, faculty, support staff, administration, laboratories, field studies, library, computing facilities and other support facilities.

The character of the educational experience is influenced strongly by the forestry competence and perspective of the faculty members. The number of faculty members dedicated to the program must be large enough to cover, by experience and interest, all of the curricular areas of the program. Teaching loads should allow time for adequate participation in research and professional development activities by faculty members. Under no circumstances should a program be critically dependent on one individual. The forestry faculty must assume the responsibility of ensuring that students receive proper curricular and career counselling.

At least one of the senior administrators governing the program seeking accreditation (e.g., Dean, Associate Dean, program chair) is expected to have a background which allows effective leadership in forestry education and to have achieved a high standing in the Canadian forestry community.

Faculty members are expected to have a high level of competence and to be dedicated to excellence in forestry education. The competence of faculty members will be judged by such factors as the level of academic education of its members, the diversity of their backgrounds, their teaching, their ability to communicate effectively, their level of scholarship as shown by scientific and professional publications, their membership in professional, scientific and learned societies, and their personal interest in the students' curricular and extra-curricular activities.

The Forestry Faculty Council (or equivalent body) must have effective control of the forestry program.

Responsibility for initiating changes in the curriculum of the forestry program may be placed in a curriculum committee at the Departmental or Faculty level.