

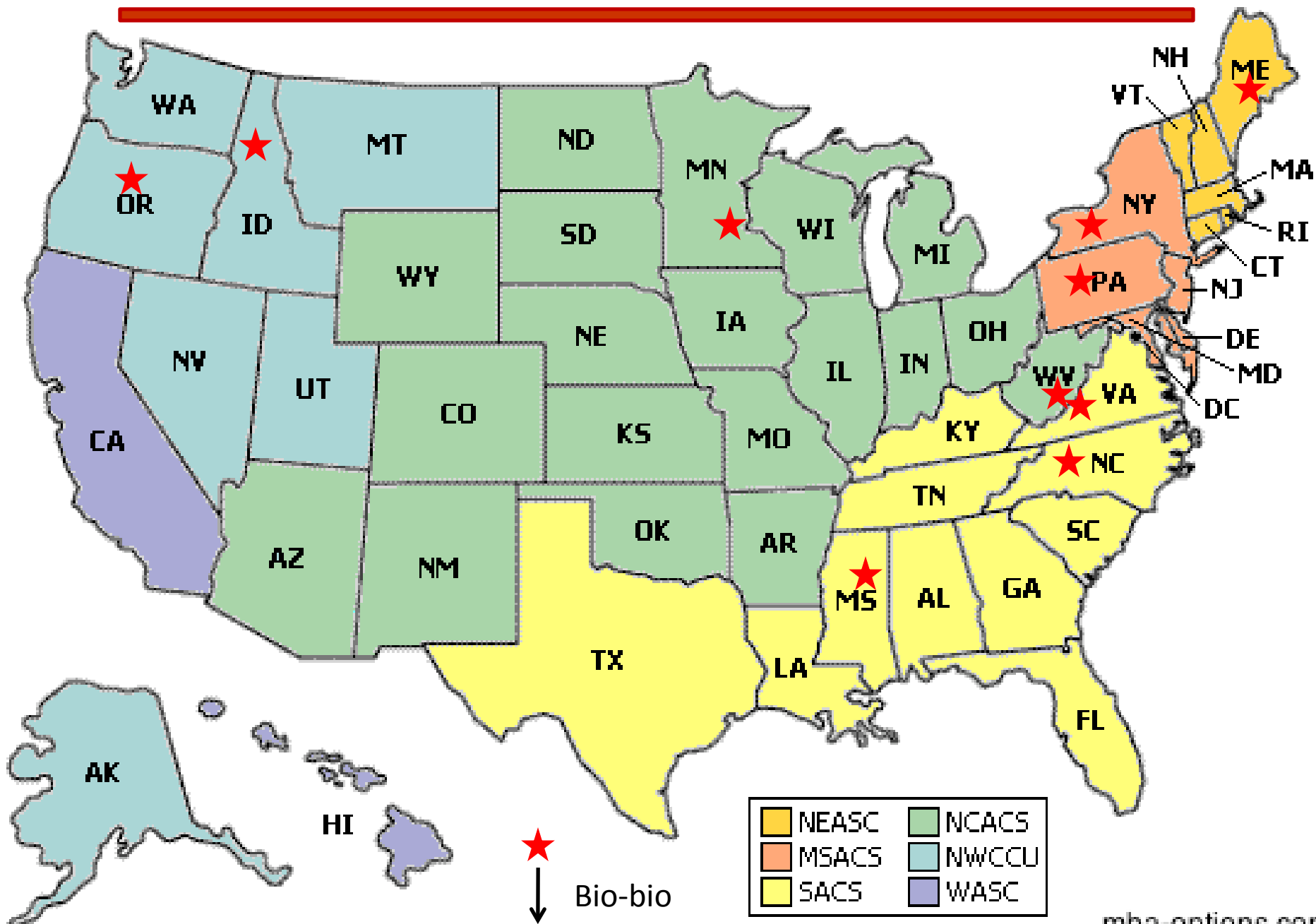
New Accreditation Standards for a Bio World

Robert W. Rice, Ph.D
University of Maine
Orono, Maine

University-Wide Accrediting Associations

- **New England Association of Schools and Colleges (NEASC)**
Established: 1885, Location: Massachusetts, Web: www.neasc.org
- **North Central Association of Colleges and Schools (NCACS)**
Established: 1895, Location: Illinois, Web: www.ncahlc.org
- **Northwest Commission on Colleges and Universities (NWCCU)** Established: 1917, Location: Washington, Web: www.nwccu.org
- **Southern Association of Colleges and Schools (SACS)**
Established: 1912, Location: Georgia, Web: www.sacscoc.org
- **Western Association of Schools and Colleges (WASC)**
Established: 1962, Location: California, Web: www.wascsenior.org
- **Middle States Association of Colleges and Schools (MSACS)**
Established: 1919, Location: Pennsylvania, Web: www.msche.org

Regional Accreditation Map



US Dept of Education Accreditation Assessment Criteria-1992*



- academic calendars, catalogs, publications, grading, and advertising
- **curricula**
- **faculty**
- **facilities, equipment, and supplies**
- **student support services**
- recruiting and admissions practices
- fiscal and administrative capacity as appropriate for the scale of the institution
- program length and tuition and fees and the objectives of the degree
- measures of program length in clock hours or credit hours
- **student outcome measures**
- default rate
- record of student complaints received by the accrediting association or state agency
- compliance with program responsibilities under Title IV of the Higher Education Act

*Adapted from 1992 Higher Education Act

Types of Accreditation

University-wide



DOE Guidelines



Regional Accrediting Association



Discipline or Program



Trade Associations;
professional organizations
etc, etc



The Purposes of Program Accreditation

- Quality assurance/quality control
- Recognition by the profession
- Certain level of professionalism
- Credibility
- Recognition within the University

Program specific
accreditation defines the
profession to a large extent.



The Current SAF Approach

Professional Education

The forestry program must document depth, breadth, and balance among the four major subject matter categories shown below. In each category, adequate instruction in basic principles, typical laboratory and field applications, and current practices must be provided.

- ***Ecology and Biology***
- ***Measurement of Forest Resources***
- ***Management of Forest Resources***
- ***Forest Resource Policy, Economics, and Administration***

SWST Program Specific Focus

- Standard I—Program Mission, Goals and Objectives
- Standard II—Curriculum and Student Competencies
- Standard III—Organization and Administration of the Teaching Program
- Standard IV—Faculty
- Standard V—Students
- Standard VI-Parent Institution Support

Brief Summary of the Current Standard II

Current Standards: Training in Basic Wood Sciences

- Anatomy and Biology of Wood Formation;
Wood Identification
- Physical Properties
- Mechanical Properties
- Chemical Characteristics and Properties
- Wood Degradation and Deterioration
- Composite Materials



Current Standards: Wood Processing and Manufacturing

- Mechanical Reduction and Attrition
- Drying Processes
- Manufacture of Solid Wood Products
- Manufacture of Composite Materials
- Chemical Wood Processing
- Wood Protection and Enhancement



Current Standards: Contemporary Issues of Wood Use

- Understanding the demand and use of wood-based products as well as the impact on society and the environment.
- Understanding the principal applications of wood and wood-based materials by choosing and specifying appropriate wood-based products for a variety of uses.
- Understanding the major policy, regulation, environmental and other societal issues that impact the discipline.
- Understanding professional ethics, including the SWST Code of Conduct, and recognition of ethical responsibility to adhere to those standards.
- Understanding the health, safety, and security issues that impact manufacturing and use of wood-based products.

The existing standards are detailed,
prescriptive and narrower in scope
than most of the programs that are
currently accredited

Suggested Revisions to Standard II

Basic Philosophy:

- Do not abandon the unique body of knowledge distinctive to the science and technology of wood and other lignocellulosic materials.
- Allow for an international focus
- Do not be overly prescriptive with respect to curriculum content
- Allow a broader base of sub disciplines to fall under the SWST accreditation banner

Suggested Changes:

From:

1.3 Standard II—Curriculum and Student Competencies

1.3.1 Preparatory and General Education

a. Communications

Communication skills are a critical competency for a professional. Programs must demonstrate how oral and written communication skills

are reinforced throughout the curriculum.

Competency must be demonstrated in:

- i. The ability to prepare, organize, and deliver effective oral presentations,
- ii. Proficiency in English composition, technical, and business writing.....

Suggested Changes:

To:

1.3 Standard II—Curriculum and Student Competencies

1.3.1 Preparatory and General Education

a. Communications

Communication skills are a critical competency for a professional. Programs must demonstrate how oral and written communication skills

are reinforced throughout the curriculum.

Competency must be demonstrated in:

- i. The ability to prepare, organize, and deliver effective oral presentations,
- ii. Proficiency in written composition, technical, and business writing,

Suggested Changes, Std II (1.3):

The core of an SWST Accredited program must include fundamental understanding of wood and wood-based materials. Fundamental to the discipline is basic materials science, including raw materials biology, physical properties, mechanical properties, and chemical characteristics and properties.

Candidate programs may broaden coverage to embrace non-wood biomaterials and may include properties of these materials in their basic materials science coursework.

Suggested Standards: Basics for All

1.3.2 Basic Materials Sciences

Competencies must be demonstrated in:

- a. Biology of Raw Materials
- b. Physical Properties
- c. Mechanical properties
- d. Chemical Characteristics and Properties

Areas of Emphasis



Suggested Changes, Std II (1.3):

The candidate program must include one or more areas of emphasis that stress applications of basic biomaterials sciences as described below. The program must provide a rationale for each area of emphasis and demonstrate that students are provided the opportunity to achieve competence in each area.

Suggested Changes, Std II (1.3):

1.3.3 Applications of Biomaterial Sciences and Technology

Beyond the fundamental knowledge of lignocellulosic materials outlined above, it is required that students develop a foundation of understanding in one or more focus or topic areas. While flexibility is encouraged, the areas of application should be well defined within the program and application-related options, should be readily available to both students and program evaluators. Further, within the topic areas, it is expected that students will be exposed to depth of knowledge beyond the introductory level and that programmatic outcomes and expectations will be well defined and measureable.

Suggested Focus Areas, Std II (1.3):

- **Harvesting, Processing and Manufacturing of Biomaterials**
- **Environmental impacts, assessment and sustainability**
- **Bioenergy and bioconversion**
- **Business and Entrepreneurship**
- **Forestry/Forest Sciences**
- **Sustainable building materials and construction techniques.**
- **Biomaterials Science and Engineering**
- **Pulp, paper and packaging sciences**

To Be Completed if the Basic Approach is Accepted:

- Guidelines for Accreditation Revised and Sent for Comment.
- Forms for Accreditation
- Appendices in Standards Handbook



Thank You

