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Forestry Support Program

Profiles of U.S.A. Forestry Schools and Consortia

Based on the work of
Richard T. Kelly

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Richard T. Kelly

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INTRODUCTION

This "directory" forms part of an on-going effort by the U.S. Agency for International Development (AID) to bring the knowledge and experience of the professional forestry community to bear on international forestry development activities. The directory describes the wealth of educational, research and extension resources that U.S. forestry schools have to offer for U.S. and foreign students. The primary purpose of this material is to summarize the abundance of data available from a number of sources into a condensed statement of forestry education available from the U.S. forestry schools and colleges.

The data can be used to:

- o Match the educational needs of potential students with an appropriate institution.
- o Strengthen "twinning" arrangements between foreign and U.S. forestry colleges and universities.
- o Serve as a reference in developing forestry education/training activities in project/program design.
- o Assist counterpart organizations and less developed countries (LDC's) to upgrade their instutitional capabilities through technical skills training and institutional training.

The information for each profile originated with each school sending the Forestry Support Program their detailed program catalogs, brochures and pamphlets. A second major source of information was the Society of American Foresters' study on International Forestry in North American colleges and Universities. This basic information was then supplemented with information from BIFAD (Board for International Food and Agricultural Development), Title XII strengthening grant proposals, literature from the various consortia, personal visits to some of the schools by the FSP staff and telephone contacts.

The information from these sources was abstracted in draft form and sent to the heads of the schools for verification. As more information becomes available from these schools, it is intended to update the profiles periodically, possibly on an annual basis; hence the loose leaf notebook. Thus, this directory should form a ready reference for field officers, potential students and others in identifying the "institutional who's-who" in international forestry.

Detailed profiles are included for only the Society of American Foresters accredited schools and those consortia having active forestry programs. A listing is given for those schools and colleges not SAF accredited and those offering a forestry education that may lead to either a technical degree or preparation for study at a four year school. More particular information can be obtained by writing to the contacts given in the profiles or to the listed schools, colleges and universities. The Forestry Support Program keeps, on file, copies of the material used to prepare this directory.

FSP is available to assist AID's field mission's, regional bureau's, and regional offices in providing additional technical advice on forestry institution's course structure, faculty members and their availabiltiy, etc. that could not be included in these brief profiles.

EXPLANATORY NOTES

This is a short explanation of the information making up the profiles:

I. INSTITUTION'S CURRICULUM OPTIONS

What degree/program options are offered in the department/college of forestry:

A. Undergraduate
B. Postgraduate

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

Specific disciplinary programs in which the school concentrates it's academic program efforts.

Areas of specialization; these are keyed to the "roster code sheet" categories described in the instructions for entering individual names into the FSP computerized roster of forestry experts.

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Internships
Intergrated case studies
Intensive courses
Cooperative programs with colleges, universities, or public agencies.
Senior level professional programs

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:
B. Formal/informal linkages between the School and foreign institutions:
C. Faculty statistics for the forestry school:
   1) Number of full time (9-month and 12-month) teaching/research forestry faculty: #
   2) Number of full time forestry faculty on overseas professional assignment:
      # : 5 to 12 weeks abraod in the past 5 years
      # : 13 to 26 weeks abroad in the past 5 years
      # : 27 to 104 weeks abroad in the past 5 years
      # : 104+ weeks abroad in the past 5 years
   3) Forestry faculty by geographical place of assignment (in aggregated person weeks):
      # Africa
      # Middle East
      # Asia & Pacific
      # Latin America
      # Non LDC's

4) Type of overseas technical (specialization) assignments (in aggregated person weeks):
(4 letter computer code) - - # of hours - - specialization
5) Faculty members presently engaged in formal language training for the purpose of strengthening international connections:
A. Number of faculty taking language training

V. PROGRAM ASSOCIATIONS

Involvement with consortia or other organization engaged in international forestry activities.

VI. CONTACTS

A. Dean/Head of forestry/program
B. Contact of international programs/forestry wide
C. Contact for international programs/campus wide programs
(Not all schools have these three contacts)

VII. ADDITIONAL INFORMATION

A. Accreditation: The major in forestry is accredited by the Society of American Foresters which is recognized by the National Commission on Accrediting as the qualified professional organization for evaluating university curricula in this field.
B. Student Body Profile
1) Number of students enrolled (date) school connected with forestry:

	U.S.	Foreign
Undergraduates	#	#
Graduates	#	#
Total (forestry)	#	#
Total campus student body	#	#

2) Geographical place of residence for foreign students:
Africa
Middle East
Asia & Pacific
Latin America
Non LDC's
3) Graduate student specialization for foreign students:
# of students (currently enrolled) - - Specialization
C. School setting: location; seasonal temperature range; rainfall.
D. Faciltities: equipment; research stations; libraries, etc.

Part of the report (Profiles of Consortia Involved in International Forestry Activities) consists of the seven consortia which are actively involved in forestry activities in developing countries and includes information on:

I. Purpose
II. Organization
III. Programs and Activities
IV. Contacts
V. Membership Institutions

A Listing of SAF Accredited Schools

ALABAMA
Auburn University
Dept. of Forestry
Auburn University, AL 36849

ARIZONA
Northern Arizona University
School of Forestry
Flagstaff, AZ 86011

CALIFORNIA
University of California
Department of Forestry &
Resource Management
Berkeley, CA 94720

Humboldt State University
School of Natural Resources
Arcata, CA 95521

COLORADO
Colorado State University
College of Forestry & Natural
Resources
Fort Collins, CO 80523

CONNECTICUT
Yale University
School of Forestry and
Environmental Studies
New Haven, CT 06511

FLORIDA
University of Florida
School of Forest Resources
and Conservation
Gainesville, FL 32611

GEORGIA
University of Georgia
School of Forest Resources
Athens, GA 30602

IDAHO
University of Idaho
College of Forestry
Wildlife and Range Sciences
Moscow, ID 83843

ILLINOIS
University of Illinois
Department of Forestry
Urbana, IL 61801

INDIANA
Purdue University
Dept. of Forestry and
Natural Resources
West Layfayette, IN 47907

IOWA
Iowa State University
Department of Forestry
Ames, IA 50011

KENTUCKY
University of Kentucky
Department of Forestry
Lexington, KY 40546

LOUISIANA
Louisiana State University
School of Forestry and
Wildlife Management
Baton Rouge, LA 70803

MAINE
University of Maine
School of Forest Resources
Orono, ME 04469

MASSACHUSETTS
University of Massachusetts
Department of Forestry and
Wildlife Management
Amherst, MA 01002

MICHIGAN
Michigan State University
Department of Forestry
East Lansing, MI 48824

Michigan Technological University
School of Forestry and Wood Products
Houghton, MI 49931

University of Michigan
School of Natural Resources
Ann Arbor, MI 48109

MINNESOTA
University of Minnesota
College of Forestry
St. Paul, MN 55108

MISSISSIPPI
Mississippi State University
School of Forest Resources
Mississippi State, MS 39762

MISSOURI
University of Missouri
School of Forestry
Fisheries and Wildlife
Columbia, MO 65211

MONTANA
University of Montana
School of Forestry
Missoula, MT 59812

NEW HAMPSHIRE
University of New Hampshire
Institute of Natural and
Environmental Resources
Durham, NH 03824

NEW YORK
SUNY College of Environmental
Science and Forestry
Syracuse, NY 13210

NORTH CAROLINA
Duke University
School of Forestry and
Environmental Studies
Durham, NC 27706

North Carolina State University
School of Forest Resources
Raleigh, NC 27650

OKLAHOMA
Oklahoma State University
Department of Forestry
Stillwater, OK 74078

OREGON
Oregon State University
School of Forestry
Corvallis, OR 97331

PENNSYLVANIA
Pennsylvania State University
School of Forest Resources
University Park, PA 16802

SOUTH CAROLINA
Clemson University
College of Forest and
Recreation Resources
Clemson, SC 29631

TENNESSEE
University of Tennessee
Department of Forestry,
Wildlife & Fisheries
Knoxville, TN 37901

TEXAS
Stephen F. Austin State University
School of Forestry
Nacogdoches, TX 75962

Texas A&M University
Department of Forest Science
College Statich, TX 77843

UTAH
Utah State University
College of Natural Resources
Logan, UT 84322

VERMONT
University of Vermont
School of Natural Resources
Burlington, VT 05405

VIRGINIA
Virginia Polytechnic Institute
and State University
School of Forestry and Wildlife
Resources
Blacksburg, VA 24061

WASHINGTON
Washington State University
Department of Forestry and
Range Management
Pullman, WA 99163

University of Washington
College of Forest Resources
Seattle, WA 98195

WEST VIRGINIA
West Virginia University
Division of Forestry
Morgantown, WV 26505

WISCONSIN
University of Wisconsin
Department of Forestry
Madison, WI 53706

University of Wisconsin -
Stevens Point
College of Natural Resources
Stevens Point, WI 54481

INSTITUTIONAL PROFILE

AUBURN UNIVERSITY

Department of Forestry

Auburn, Alabama 36849

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forest Products:
   To develop a comprehensive technical knowledge of wood and fiber, as well as managerial and engineering skills.

2. Bachelor of Science/Forest Management:
   To develop the skills necessary for the application of technical, biological, and business principles to the management of forest resources and to the production of raw materials for the forest products industry.

Departments of Agricultural Engineering and Forestry

3. Bachelor of Science/Forest Engineering:
   To apply skills in engineering and forestry principles to solving operations problems in regenerating, growing, harvesting, handling, transporting, processing timber, and engineering problems related to other forest resources.

   Other curricula offered in Agricultural Science: Agronomy and Soils; Animal and Dairy Sciences; Poultry Science; Horticulture; and Agricultural Journalism. Curricula offered in Agricultural Business and Economics: Agricultural Engineering; Bilogical Sciences, with majors in Botany; Fisheries Management; Wildlife Management; Entomology; Zoology; Microbiology; and Marine Biology; Food Science; Ornamental Horticulture; and Plant Protection.

B. Postgraduate

Department of Forestry

1. Master of Science:
2. Master of Forestry:
3. Doctor of Philosophy:

   Areas of study: Forest Ecology, Soils, Management, Forest Measurements, Photogrammetry, Tree Physiology, Timber Harvesting, Forest Economics, Pathology and Entomology.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(PROD) Forest Products
(HARV) Timber Harvesting
(ENGR) Forest Engineering
(NURS) Forest Nursery Management
(ECON) Forest Economics
(PHYS) Tree Physiology
(SILV) Silviculture
(MENS) Forest Measurements
(ECOL) Forest Ecology

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

The Auburn Forest Engineering Program, jointly administered by the Department of Forestry and Department of Agricultural Engineering, develops competence in both forestry and engineering. The School of Agriculture, Forestry, and Biological Sciences also furnishes the subject matter training in Agriculture for the curriculum for training teachers of Vocational Agriculture.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1982, Faculty statistics for College of Environmental Science and Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 22

2. Number of full time forestry faculty on overseas professional assignment: N/A

3. Forestry faculty by geographical place of assignment (in aggregated person weeks): N/A

4. Type of overseas technical (specialization) assignments (in aggregated person weeks): N/A

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

A. Title XII: strengthening grant funds to substain and increase involvement in less developed nation's agriculture and inland fisheries activity.

VI. CONTACTS

A. Dr. William Alverson, Assistant Dean
School of Agriculture, Forestry & Biological Science
Auburn, AL 36849
Telephone: (205) 826-2345

B. Dr. E. F. Thompson, Head
Program Coordinator:
School of Agriculture, Forestry & Biological Science
Auburn University, AL 36849
Telephone: (205) 826-4050

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters.

B. Student body profile (Fall 1982) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	166	0
Graduates	34	1
Total	200	1
Total campus student body	18,401	249

2) Geographical place of residence of foreign students:

0 Africa
0 Middle East
1 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(UTIL) 1 Utilization

C. School setting: Auburn, Alabama, on Interstate 85 in the eastern section of the state. Surrounded by farms and woodlands, the University is a 1,871 acre campus, with 71 major buildings.

D. Facilities:

Forest Products Laboratory offers the facilities needed for teaching and research

A forested area adjacent to campus offers many outdoor labs where research is conducted. The University Library contains reference materials.

The Department's Summer Camp includes forested area for outdoor laboratories, modern dormitory and dining facilities, and an equipped classroom/auditorium building.

Reference rooms and computer facilities for students and faculty, and a research farm are also available where students may observe new machines in operaion and investigate new research techniques.

INSTITUTIONAL PROFILE

NORTHERN ARIZONA UNIVERSITY

School of Forestry

Flagstaff, Arizona 86011

NORTHERN ARIZONA UNIVERSITY
Flagstaff, Arizona 86011

I. FORESTRY CURRICULUM OPTIONS

The School of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry
This program includes three semesters of wholly integrated forestry instruction. During these semesters the student enrolls in no other classes.

The students learn the use of forestry tools and techniques. Plant identification, wood characteristics, ecological principles, and other basic forest sciences used by the forester are introduced.

Forestry concepts are developed through the use of case studies describing resource management situations. Emphasis is on administration and management of timber, range, watershed, wildlife, and recreational resources for maximum benefit.

The senior year is devoted to collection of information and preparation of a comprehensive multiple resource management plan for a large land area in northern Arizona. After completing the management plan the student will engage in directed studies in areas of special interest.

B. Postgraduate

N/A

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

N/A

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Rocky Mountain Forest and Range Experiment Station. U.S. Forest Service headquarters are located on campus. Cooperation is maintained through using the various facilities and the experimental forest.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1982, Faculty statistics for the School of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 12

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 5-12 weeks abroad in the past 5 years
   2 : 27-104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   0 Asia & Pacific
   16 Latin America
   46 Non-LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (MGMT) 10 Forest Management
   (BIOM) 1 Biometrics
   (MENS) 1 Mensuration
   (SILV) 28 Silviculture
   (TRIM) 22 Forest Genetics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

D. The forestry school plans to expand its international program through:

1. Cooperative program with the State of Jalisco, Mexico, and other Mexican agencies for three years. The forest faculty will participate as consultants.

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. William A. Groman
School of Forestry
Box 4098
Northern Arizona University
Flagstaff, AZ 86011
Telephone: (602) 523-9011

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	232	0
Graduates	7	0
Total	239	0
Total campus student body	N/A	N/A

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
0 Asia and Pacific
0 Latin America
0 Non-LDC's

3) Graduate student specialization for foreign students:

N/A

C. School setting: the Grand Canyon National Park, many national monuments, forests, deserts, mountains, lakes, and varied geological phenomena, are within ready access. The city of Flagstaff is situated in the Coconino Naitonal Forest at an elevation of 7,000 feet. The elevation and protection provided by the forest, give the city a year-round climate; in the summer. average temperature is 65 degrees F.

The 4,000-acre School Forest is just five miles west of Flagstaff, for laboratory exercises and field work essential to forestry. In addition to its primary use for educational purposes, it serves a secondary function in the establishment of demonstration and research plots.

D. Facilities: Sawmills, pulpmill, wood preservation plant, experimental forest, and the ponderosa pine forest. Close at hand are recreational areas, and watershed research facilities.

INSTITUTIONAL PROFILE

UNIVERSITY OF ARIZONA

Division of Forest-Watershed Resources

Tucson, Arizona 85931

UNIVERSITY OF ARIZONA
Tucson, Arizona

I. FORESTRY CURRICULUM OPTIONS

College of Agriculture

School of Renewable Natural Resources

A. Undergraduate

1. Division of Landscape Resources
   Bachelor of Science/Landscape Architecture:
   Strong linkages in renewable natural resources and qualities of the arid southwest.

2. Division of Forest and Watershed Resources
   Bachelor of Science/Watershed Management:
   Watershed management courses, which consider the management needs of whole watersheds and their multiple uses. Students may obtain a major in watershed management with an option in watershed hydrology or forest-watershed management.

4. Division of Wildlife, Fisheries and Recreation Resources
   Bachelor of Science/Natural Resource Recreation:
   Sufficient flexibility has been created in the program to allow students to emphasize additional study in the professional areas of water-based recreation, resource planning, interpretation, park management administration and forest recreation management.

3. Division of Range Resources
   Bachelor of Science/Range Management:
   Training provides students with the knowledge and skills necessary to management and consulting firms and foreign assistance programs.

5. Bachelor of Science/Wildlife and Fisheries Science:
   Provides the student with a broad background for a professional career with state fish and game departments, with federal fish and wildlife or other natural resource management agencies, or for graduate study. Students may obtain a major in wildlife and fisheries science with an option in wildlife ecology or in fisheries science.

B. Postgraduate

The purpose of the program is to train people (1) for research and teaching in the area of natural resource management and planning, and (2) for land management positions requiring specialization in one of the available majors.

1. Master of Science/Watershed Management:
2. Doctor of Philosophy/Watershed Management:
   Specialization in:

   a. Forest Watershed Management: Areas of study include growth, yield, and quality of forest overstories, inter-relationships among biophysical and socio-economic aspects of multi-resource forest management and land use, and simulation of impacts of land management activities and policies on forest and woodland ecosystems.

   b. Natural Resource Recreation: Students can pursue studies in a number of areas such as: 1) leisure theory; 2) recreational behavior; 3) natural resource planning; 4) recreation resource valuation; 5) recreation participation modeling; 6) recreational impacts on water quality and vice versa; 7) environmental interpretation; 8) natural resource policy; and 9) recreation capacity determination.

   c. Watershed Hydrology: Areas of concentration for study include: 1) mathematical modeling of hydrological processes; 2) reclamation of disturbed lands; 3) evaluating pollution potential of man's activities on the hydrologic environment; and 4) systems analysis in watershed management, including operations research and computer simulation techniques. Study programs can relate either to surface or groundwater hydrology and to forest, range or agricultural hydrology.

3. Master of Science/Renewable Natural Resource Studies:
4. Doctor of Philosophy/Renewable Natural Resource Studies:

   Program provides graduate-level training and research opportunities in natural resources in combination with studies in areas such as policy, administraiton, economics and behavioral science. Programs of study are individually designed. Each student admitted should have academic training in one of the resource disciplines within the school or a related area.

5. Master of Science/Range Management:
6. Doctor of Philosophy/Range Management:

Programs in Range Management are aimed at providing students with strength in the applicable natural and social sciences and the ability to communicate and apply their knowledge in research, teaching and resource management careers. The University offers supporting curricula in basic sciences, social sciences and agricultural sciences. Designed to encourage interaction with other resource disciplines such as wildlife ecology, forest-watershed management, recreation and landscape architecture.

7. Master of Science/Wildlife and Fisheries Science:
8. Doctor of Philosophy/Wildlife and Fisheries Science:

a. Wildlife Ecology: Designing and conducting a field-oriented research project that deals with some aspect of wildlife ecology and/or management. Often requiring considerable time spent in the field, this combination of field work and coursework provides students with a substantive background in wildlife ecology as well as practical experience in wildlife management and research.

b. Fisheries Science: Programs in fisheries science are conducted in cooperation with the Arizona Cooperative Fishery Research Unit, which is supported by the University of Arizona, the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service. Research programs are diverse, ranging from field studies in lowland impoundments, large rivers and high mountain lakes and streams to many types of laboratory experiments.

9. Master of Science/Landscape Architecture

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(WASH) Watershed Management
(ARID) Dryland Forestry

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. The Renewable Natural Resource Studies interdisciplinary program is appropriate for mid-career professionals interested in natural resources policy administration, planning, management and research.

B. Graduate programs in fisheries science are conducted in cooperation with the Arizona Cooperative Fishery Research Unit, which is supported by the University of Arizona, the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service. Also, in the School is a Wildlife Cooperative Research Unit to help assist in graduate programs in wildlife ecology.

C. The College of Agriculture provides internship opportunities to qualified students who wish to receive training and practice in actual service with technical, business or government establishments.

D. Remote sensing concerns the collection of information related in some way to the earth's natural resources or environment. Data are primarily collected by satellite and aircraft systems in conjunction with localized ground-based surveys and measurements. The data are processed by digital computer or optical techniques to extract information of value to earth scientists and resource and environment managers at the local, state, and federal levels. The Committee on Remote Sensing offers no graduate major at the present time but minor programs are available for doctoral students with majors in disciplines within the Colleges of Agriculture.

E. The Agriculture Experiment Station maintains close cooperative relationships with research agencies such as the Agricultural Research Service and the Forest Service of the United States Department of Agriculture.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

1. Forestry in Arid Environments
2. Development and Management of Water Resources
3. Agroforestry
4. Dryland Nursery and Plantation Management
5. International Renewable Resource Issues

B. Formal/informal linkages between the School and foreign institutions:

1. Instituto de Ecologia and Subsecretaria Forestal y de la Fauna/Mexico.
2. University of the Philippines and Forest Research Institute/Philippines.
3. UNESCO's Man and the Biosphere (MAB) Program.
4. The University of Arizona has an institution in the management of arid land resources and the watershed hydrology faculty has established ties with foreign institutions and agencies, primarily in the Middle East and Latin America. As a result, the faculty is involved in consultation on resource management, development of workshop training materials and cooperative research. A number of foreign students are enrolled in the program.
5. International Projects in forest and woodland ecosystem simulations.
6. The College of Agriculture participates in several international programs. Recent activities include research and educational programs in Brazil, Iran, Niger, Ecuador, Saudi Arabia, the Philippines, Mexico, Turkey, Israel, Brazil, Ghano, and Peru. Interaction with ACTION-Peace Corps, the Agency for International Development, and the U.S. State Department provides unique opportunities for student and faculty evaluation of world resource problems.

C. Fall, 1983, Faculty statistics for School of Renewable Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 27

2. Number of full time forestry faculty on overseas professional assignment:

   2 : 5 to 12 weeks abroad in the last 5 years
   2 : 13 to 26 weeks abroad in the last 5 years
   4 : 27 to 104 weeks abroad in the last 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

2	Africa
32	Middle East
38	Asia & Pacific
60	Latin America
119	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(MGMT)	14	Forest Management
(MENS)	5	Mensuration
(MAPP)	11	Mapping
(REMS)	11	Remote Sensing
(FORY)	25	Silvics
(ECOL)	20	Forest Ecology
(BIOL)	13	Forest Biology
(SILV)	4	Silviculture
(WASH)	104	Watershed Management
(WIMG)	16	Wildlife Management
(RAMG)	12	Range Management
(UTIL)	2	Utilization
(PARK)	12	Forest Recreation

V. PROGRAM ASSOCIATIONS

A. Title XII: The University of Arizona has applied for a "Strengthening Grant" to: render technical assistance in the adaptation and application of agricultural and nutritional technology; increasing institutional and human resource skills in developing countries; and conducting/supporting long and short-term research with other universities and international centers.

B. Consortium for International Development (CID):

- o Arid Lands Agricultureal Expertise
- o Office of Arid Lands Studies and Bioenergy
- o Environmental Research Laboratory
- o International Center for Arid Lands Agricultural Systems (water, harvesting, runoff, farming systems)
- o Disease Ecology of Arid Lands
- o Latin American & Middle East Studies Centers
- o Hydrology & Water Resource Program
- o Arid Land Crop Breeding and New Crops

C. Universities for International Forestry (UNIFOR)

VI. CONTACTS

A. Dr. Gordon S. Lehman, Chairman
Division of Forest - Watershed Resources
325 Biological Sciences East
University of Arizona
Tuscon, AZ 85721
Telephone: (602) 621-7262

B. Dr. Jack Johnson, Head
International Programs
College of Agriculture
303 Agriculture
University of Arizona
Tucson, AZ 85721

C. Dr. Frank Gregg, Director
School of Renewable Natural Resources
325 Biological Sciences East
University of Arizona
Tucson, AZ 85721
Telephone: (602) 621-7255

D. Dr. Bartley Cardon, Dean
College of Agriculture
803 Agriculture
University of Arizona
Tucson, AZ 85721
Telephone: (602) 621-7621

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Division of Forest-Watershed Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	273	10
Graduates	151	37
Total	424	47
Total campus student body	31,900	N/A

2) Geographical place of residence for foriegn students:

24 Africa
5 Middle East
2 Asia & Pacific
14 Latin America
2 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(MGMT) 3 Forest Management
(SILV) 1 Silviculture
(WASH) 12 Watershed Management
(FISH) 1 Fisheries Management
(RAMG) 9 Range Management
(UTIL) 1 Utilization
(AGRO) 2 Agro (Village) Forestry
(ARID) 7 Dryland Forestry

C. School setting:

Agricultural Experiment Station - Responsible for the research program in agriculture and renewable natural resources. The program includes both basic and applied research conducted on farms, orchards, ranches, rangelands, and forests in cooperation with farmers, ranchers, and officials of various state and federal agencies.

Office of Arid Land Studies - Administers the College of Agriculture's interdisciplinary doctoral program in arid lands resource sciences.

Laboratory of Tree-Ring Research - The Laboratory conducts a program of teaching and research in all aspects of dendrochronology. Tree-ring specimens, numbering about 200,000 samples from living and dead trees, the Laboratory maintains a variety of specialized equipment and a series of active data banks containing processed tree-ring chronologies, relevant climatic and hydrologic records, and archaeological tree-ring dates and site information.

The Arizona Cooperative National Park Resources Study Unit is engaged in research to support the natural science program of the National Park Service. In cooperation with the University of Arizona, the unit provides graduate research opportunities and instructional support in a broad array of natural resource problem areas.

The Arizona Cooperative Wildlife Research Unit is sponsored and supported jointly by the University of Arizona, the Arizona Game and Fish Department, the U.S. Fish and Wildlife Service, and the Wildlife Management Institute. The facilities and personnel of the unit are available to graduate students who wish to pursue both class work and research programs leading to advanced degrees in wildlife biology.

The Arboretum - Facilities for teaching and research, thirty acres of native and introduced plants from arid and semi-arid regions, together with about 1,000 additional acres of undisturbed fauna and flora.

Agricultural Research Service and the Soil Conservation Service of the USDA, the United States Bureau of Mines, and the U.S. Geological Survey, are located on or near the campus of the University. These research organizations work closely with the University, and a number of their personnel also hold University staff appointments.

The Water Resources Research Center - Devoted to assistance to water-related research activities at the three state universities. Work includes the harvesting of additional water from arid and semi-arid watersheds; artificially recharging the groundwater aquifers; evaporation suppression; seepage control; urban hydrology; and operation and maintenance of the research facility on the Casa Grande Highway, and one undeveloped and three urbanized watersheds, all in or near Tucson.

Arizona Cooperative Fishery Research Unit - the functions of the Arizona Cooperative Fishery Research Unit are those of graduate education, research, and extension. The unit is supported by the University of Arizona, the Arizona Game and Fish Department, and the U.S. Fish and Wildlife Service.

INSTITUTIONAL PROFILE

UNIVERSITY OF CALIFORNIA/BERKELEY

Department of Forestry & Resource Management

Berkeley, California 98702

UNIVERSITY OF CALIFORNIA/BERKELEY
Berkeley, California

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry and Resource Management

A. Undergraduate

1. Bachelor of Science/Forestry:
The principles and scientific bases of managing forests and wildlands for a variety of social purposes. Plan of Study: (1) A two-year preparatory program, (2) a required 10-week summer field program immediately preceding the junior year, and (3) a two-year professional program.

2. Bachelor of Science/Wood Science and Technology:
The focus is on the utilization of products obtained from trees. Major emphasis on management aspects of an integrated program to maximize benefits from harvested trees.

B. Other areas of undergraduate academic study in natural resources (not under the Department of Forestry & Resource Management): Entomology; Plant and Soil Biology; Plant Pathology; Soil Resource Management; Conservation and Resource Studies; Political Economy of Natural Resources; and Pest Management.

C. Postgraduate

Department of Forestry and Resource Management

1. Master of Forestry:
Courses aimed at developing capacity for biological, quantitative, and managerial analysis. In addition, to organize an academic program that provides technical specialization at an advanced level and amplifies the understanding of how to manage resources to meet specific economic and social goals.

Wildland Resource Science

1. Master of Science:
2. Doctor of Philosophy:
The program for the master's degree is designed for forestry graduates or for those in other wildland resource or related fields, who desire to specialize in particular subjects such as biometrics, ecology, economics, photogrammetry, policy and planning, silviculture, soils, watershed management, or wildlife management.

D. Indepartmental Postgraduate Program

Wood Science and Technology

1. Master of Science:
2. Doctor of Philosophy:

The focus is on the anatomy, mechanics, physics, and chemistry of wood, and the application of this knowledge to the utilization of wood. Specialization in wood structure; wood physics, including wood moisture and wood heat relations; timber mechanics and wood engineering; gluing and glued products; wood quality; wood chemistry, including extractives, fiber utilization and pulping, pyrolysis, and other chemical processes; wood processing, including machining, drying, and treating; and product pathology.

Range Management

1. Master of Science:

Fields of specialization include grass or brushland ecology, forage investigations (in relation to Livestock or Wildlife Management), and rangeland vegetation rehabilitation.

E. Other areas of graduate academic study in natural resources (not under the department of Forestry and Resource Management): Plant Pathology; Entomological Sciences; Agricultural and Resource Economics; Soil Science; Plant Physiology; and Parasitology.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECON) Forest Economics
(TRIM) Tree Genetics
(PROD) Forest Products
(ECOL) Forest Ecology
(RAMG) Range Ecology and Management
(SILV) Silviculture
(POLY) Planning and Policy
(WASH) Soils and Watershed
(WLMG) Wildlife
(BIOM) Biometrics
(MGMT) Forest Management

III. SUPPORTIVE RESEARCH AND EDUCTIONAL OPPORTUNITIES

The location of the Department on campus also provides ready access to numerous public agencies and private organizations involved in managing forests and other wildlands. These include the U.S. Forest Service, Bureau of Land Management, National Park Service, California Division of Forestry, U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Pacific Southwest Forest Range and Experiment Station.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

A number of faculty members have extensive international experience and are actively engaged in international projects. The Institute of International Studies and other campus units provide an important environment for persons interested in international studies. Several faculty members were born outside the United States and received their basic forestry training overseas.

C. Fall, 1982, Faculty Statistics for the Department of Forestry and Resource Management:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 34

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 13-26 weeks abroad in the past 5 years
   3 : 27-104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   16 Africa
   16 Middle East
   10 Asia & Pacific
   3 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (INTL) Advisory Sources to Government Agencies

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

No formal associations at present.

VI. CONTACTS

A. Graduate Advisor/Graduate Assistant
Department of Forestry and Resource Management
145 Mulford Hall
University of California, Berkeley 94720
Telephone: (415) 642-6410

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) Department of Forestry and Resource Management

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	89	4
Graduates	70	20
Total	159	24
Total campus student body	30,000	1,800

2) Geographical place of residence for foreign students:

5 Africa
1 Middle East
10 Asia & Pacific
3 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 8 Forest Economics, Management, Policy and Planning
(ECOL) 1 Forest Ecology
(BIOL) 1 Forest Biology
(UTIL) 13 Wood Utilization
(PARK) 1 Forest Recreation
(TRIM) 1 Forest Genetics

C. School setting: on the fringe of metropolitan area with good access to regional parks and open space. Equidistant between coastal redwood region and Sierra Nevada mixed conifer forest.

D. Facilities: Forests and Research Areas Laboratory, greenhouse, and field plot facilities for instruction and research investigations. Activities include projects in biological control, pest management, and crop variation tests. International Center for Biological Control: to study worldwide utilization of nonchemical means of controlling noxious insects, weeds, and other harmful organisms. Research Forests: University Research Forests are conifer type, Giant Sequoia forest type, and the Douglas fir/coast Redwood type. UC Forestry Camp: elevations of the area range from 4,000 to 7,000 feet, and land uses are typically timber production and recreation, with numerous lakes and old and young growth Sierra mixed conifer forest. Four branch libraries have combined collections totaling more than 145,000 volumes plus the 6,000,000-volume General Library collection.

The Pacific Southwest Forest and Range Experiment Station U.S. Forest Service: located within three blocks of the College, the Experiment Station and departments of the University have had close working relations. Forest Products Laboratory: this research and testing center is located in Richmond, California, a few miles from the Berkeley campus. Specialized equipment for instruction and investigations in wood anatomy, wood quality, wood chemistry, product pathology, pulp and paper, wood physics, adhesives, timber mechanics, and machining.

INSTITUTIONAL PROFILE

HUMBOLT STATE UNIVERSITY

School of Natural Resources

Arcata, CA 95521

HUMBOLT STATE UNIVERSITY
Arcata, California

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry

A Undergraduate

1. Bachelor of Science/Forestry, options in:

   a. Forest Management/Resources: Provides training in the management of the forest and its associated resources including timber, wildlife, recreation, watershed and related fields to increase the technical, conceptual and social competence of students.

   b. Forest Science: Provides experience in basic and advanced science courses to prepare qualified students for future careers or graduate study in forestry research.

   c. Forest Management/Production: The emphasis in forest production is designed to develope individuals with expertise in engineering and business management aspects of forest management.

   d. Opportunities are available to specialize in Forest Ecology; Silviculture; Wood Science; Genetics; Soils; Economics; Biometry; Fire Science; Engineering Science; and Hydrology.

   e. Programs offered but not under the Department of Forestry: Fisheries, Range Management, Wildlife, Watershed Management and Oceanography.

B. Postgraduate

1. Master of Science with a Major in Natural Resources:

   The M.S. curriculum normally requires completion of a thesis as part of the student's training for research in ecology and management of natural resources. Programs include Forestry, Fisheries; Wastewater Utilization; Watershed Management; Wildlife; and Interdisciplinary Programs.

II. Areas of Academic Concentration in Forestry

(HARV) Timber Harvesting
(MGMT) Forest Resource Management
(WLMG) Wildlife Management
(FISH) Fisheries
(RAMG) Range Management

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Forestry majors have the opportunity to participate in the Univesity's cooperative Education program that allows them to work full-time in pre-professional jobs related to their major or career interest.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1982, Faculty statistics for the School of Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 45

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 5 to 12 weeks abroad in last 5 years
   1 : 13 to 26 weeks abroad in last 5 years
   1 : 27 to 104 weeks abroad in last 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   50 Africa
   0 Middle East
   60 Asia & Pacific
   0 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments: N/A

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. Richard L. Ridenhour
Dean - College of Natural Resources
Humbolt State University
Arcata, CA 95521
Telephone: (707) 826-3561

B. Dr. Susan Bicknell
Chair-Forestry Department
College of Natural Resources
Humbolt State University
Arcata, CA 95521
Telephone: (707) 826-3935

C. Dr. Bruce Johnston
Natural Resource Career Advisor
Career Development Center (HSU)
Humbolt State University
Arcata, CA 95521

VI. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Natural Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	1,242	10
Graduates	105	7
Total	1,342	17
Total campus student body	6,430	72

2) Geographical place of residence of foreign students:

2 Africa
0 Middle East
6 Asia & Pacific
4 Latin America
5 Non LDC's

3) Graduate student specialization for foreign students:

(FISH) 4 Fisheries
(OCEA) 1 Oceanography
(RAMG) 1 Range Management
(WIMG) 4 Wildlife Management

C. School setting: the University is located on the northern coast of California, 275 miles above San Francisco surrounded by redwood and fir forests, rivers, bays, lagoons, meadows, rangeland, mountains and ocean. The mean, year-round temperature range is from the mid-forties to the low sixties.

D. Facilities: Forestry Building; Main Library (300,000 volumes covering all major subject areas); Computer Center; Instructional Development and Media Services; Greenhouse; School Forest; Natural Resource Building; Wildlife Building; Game Pens; Fish Hatchery; Growth Chambers; and Fire Laboratory.

INSTITUTIONAL PROFILE

COLORADO STATE UNIVERSITY

College of Forestry and Natural Resources

Fort Collins, Colorado 80523

COLORADO STATE UNIVERSITY
Fort Collins, Colorado

I. FORESTRY CURRICULUM OPTIONS

Department of Forest and Wood Science

A. Undergraduate

1. Bachelor of Science/Forest Biology:
   Provides training emphasizing forest biology and appropriate preparation for graduate study in the forest sciences, teaching or research in forest botany, physiology, pathology, entomology, or genetics. Two summers of field experience required.

2. Bachelor of Science/Forest Management:
   Provides a broad education in the basic sciences as well as training in concentration in forest biometry, forest fire science, forest management, forestry-business, forest entomology, forest pathology, forest influences, or forest engineering.

3. Bachelor of Science/Natural Resource Management:
   This curriculum provides the broadest possible exposure to natural resources compatible with training in forestry.

4. Bachelor of Science/Wood Science and Technology:
   Training in wood science and its applications, research and development, production, distribution, and use of forest products. Concentrations in business, forestry, wood chemistry, wood engineering, and wood technology are offered.

5. Bachelor of Science/Range-Forest Management:
   This major prepares students to manage and administer rangeland resources under multiple-use principles.

B. Postgraduate

1. Master of Science:
2. Doctor of Philosophy:

   Programs are offered in Silviculture, Forest Ecology, Forest Genetics and Morphology, Tree Physiology, Forest Economics and Marketing, Forest Biometry, Forest Fire Science, Multiple-use Forest Management, Regional Resource Planning, Natural Resources Administration, Wood Science and Technology, Wood Anatomy, Wood Chemistry, and Wood Engineering.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(WASH) Watershed Management
(UTIL) Wood Utilization
(RAMG) Range Management
(WLMG) Wildlife Management
(FLPL) Fluvial Plains

III. SUPPORTIVE RESEARCH AND EDUCATONAL OPPORTUNITIES

A. Close cooperation is maintained with a variety of forestry and natural resource agencies. These include the Colorado State Forest Service, Colorado Division of Wildlife, Colorado Division of Parks, Roosevelt National Forest, Rocky Mountain Forest and Range Experiment Station, Soil Conservation Service, Fish and Wildlife Service, and the Agricultural Research Service. Cooperation with these agencies includes guest lectures, special seminars, and employment of students.

B. Cooperative Education. Program in which participants combine classroom knowledge with work. The College has working agreements with most of the federal agencies concerned with the natural resources.

C. Internships. Field internship in two concentrations: environmental interpretation and park and recreation administration. Although the College maintains agency contacts for interships, the burden of securing the internship rests solely with the student. The College supports efforts which lead to a two-way flow of information and research results between the College and institutions or agencies abroad. The Natural Resource Ecology Laboratory, undertakes ecosystem research and training in systems approaches in ecology.

D. International Non-Degree Training Programs:

Training needs may consist of specialized study in new techniques and procedures, upgrading personnel, and/or updating professional knowledge.

Watershed Management: provides non-degree training opportunities in watershed management, soil and water conservation, forestry, and other natural resources for officers and scientists from lesser developed countries. Programs are designed to meet individual needs and may include formal classroom work, independent study, study tours, and visits to organizations of interest as desired.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Program/courses taught in international forestry:

World Natural Resources (a postgraduate course)

B. Formal/informal linkages between the School and foreign institutions:

National Experimental University/Venezuela
University of the Andes/Venezuela
Interamerican Institute Organization/Dominican Republic
East China Institute of Harbin/China
Insitute Technologic D.E./Costa Rica
Colegio De Postgraduatos, Chapingo/Mexico
State of Baja California Sur/Mexico
Autonomous University of Guadalajara/Mexico

C. Fall, 1983, Faculty statistics for College of Forestry and Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 22

2. Number of full time forestry faculty on overseas professional assignment:

8 : 5 to 12 weeks abroad in the past 5 years
7 : 13 to 26 weeks abroad in the past 5 years
6 : 27 to 104 weeks abroad in the past 5 years
1 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

173 Africa
12 Middle East
9 Asia & Pacific
67 Latin America
0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks:

(LAUS)	32	Land Use Planning/Assessment
(ECON)	5	Forest Economics
(MGMT)	27	Forest Management
(BIOM)	12	Biometrics/Inventory
(MEMS)	4	Remote Sensing
(MAPP)	4	Mapping
(ECOL)	10	Forest Ecology
(BIOL)	14	Forest Biology
(ENTO)	14	Forest Entomology
(FIRE)	3	Fire Control
(WASH)	133	Watershed Management
(NARS)	20	Conservation
(WIMG)	59	Wildlife Management
(FISH)	8	Fisheries Management
(RAMG)	390	Range Management
(PARK)	56	Forest Recreation
(TRIM)	2	Forest Genetics

V. PROGRAM ASSOCIATIONS

1. Title XII: strengthening grant in programs of soil and water management, crop and livestock production systems, animal health and medicine, genetic resources, economic development planning and policy analysis, rural development, extension, food science and nutrition.

2. MOU (Memorandum of Understanding) with USAID.

3. CID (Consortium for International Development): Prepares proposals for large foreign projects.

VI. CONTACTS

A. Dr. Jay M. Hughes, Dean
College of Forestry and Natural Resources
Colorado State University
Fort Collins, CO 80523
Telephone: (303) 491-6675

B. Dr. Donald L. Crews, Assistant Dean
College of Forestry and Natural Resources
Colorado State University
Fort Collins, CO 80523
Telephone: (303) 491-6675

C. Director, International Programs
Dr. James Meiman
202 Administration
Colorado State University
Fort Collins, CO 80523
Telephone: (303) 491-7194

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) College of Forestry and Natural Resources:

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	1,362	3
Graduates	275	48
Total	1,637	51
Total campus student body	18,393	516

2) Geographical place of residence for foreign students:

10 Africa
17 Middle East
6 Asia and Pacific
17 Latin America
1 Non LDC's

3) Graduate school specialization for foreign students:

(ECON) 2 Forest Economics
(MGMT) 4 Forest Management
(MENS) 4 Mensuration/Inventory
(SILV) 2 Silviculture
(WASH) 5 Watershed Management
(WLMG) 7 Wildlife Management
(FISH) 3 Fisheries Management
(RAMG) 17 Range Management
(UTIL) 3 Wood utilization
(PARK) 1 Recreation/National Parks

C. School setting: campuses are located in and near the city of Fort Collins. Located at an elevation of 5,000 feet, Fort Collins has a clear, dry atmosphere, over 300 days of sunshine. The summer temperature ranges from an average high of 82 degrees to an average low of 52 degrees Fahrenheit, the winter temperature ranges from an average high of 41 degrees Fahrenheit to an average low of 13 degrees Fahrenheit.

D. Facilities: total space assignement is +160,000 square feet which provides up-to-date facilities for the instructional and research programs: general classrooms and laboratories; a College computer facility and shop; specialized laboratories in dendrology, resources planning, and fisheries biology. The Natural Resources Research Laboratory provides space for resource planning and specialized laboratory for fire science.

INSTITUTIONAL PROFILE

YALE UNIVERSITY

School of Forestry and Environmental Studies

New Haven, Connecticut 06511

YALE UNIVERSITY
New Haven, Connecticut

I. FORESTRY CURRICULUM OPTIONS

School of Forestry and Environmental Studies

The immediate objective of the School is to contribute to understanding, managament, and conservation of natural environments, to preserve the health, productivity, and renewability of forests and related natural resources. Individual program of study and the flexibility of course selection largely depends on student objectives and previous academic preparation.

A. Postgraduate

1. Master of Forestry: (one year program)

   This degree program is restricted to selected individuals who have demonstrated competence during a minimum of two years of responsible, full-time professional forestry experience. For professionals interested in acquiring new skills and broadening their perspectives with career objectives in the area of forest management and administration.

2. Master of Forestry: (two-year program)

   This degree program builds upon the bachelor's degree in forestry or related programs in natural resource management or the natural or social sciences. The program is designed to integrate knowledge of forestry, natural resources and society; extend knowledge in revelant fields; and to provide the opportunity for students to undertake independent problem solving and critical studies.

3. Master of Forest Science:

   This degree program is intended to prepare students for doctoral programs at Yale or elsewhere in anticipation of research and or university teaching careers or to serve as a terminal degree for those careers requiring specialized knowledge and training. Programs available include: Tree Physiology and Anatomy, Natural Resource Economics and Policy, Biometeorology, Pathology, Soils, Spatial Information Systems, Wildlife Ecology, Forest Ecology, Sociology, Forest Biology and Silviculture.

4. Master of Environmental Studies:

The program is designed for dealing with the understanding of multiple-use management of terrestrial systems. The program presents a one year program restricted to individuals with a minimum of two years of responsible, full-time professional experience. Two year program: includes one summer program (technical skills), distribution requirements in quantitative analysis, physical/biological/soico-economic science; concentration requirement - specialized field of study; special project course; case studies.

5. Doctor of Philosophy:

Offers instruction and opportunities for research in most of the specialties of forestry and forest science. Designed to develop broad knowledge, analytical powers, and technical skill demanded in forestry and related natural resource disciplines.

In addition to these basic courses within the School, students are encouraged to select a large portion of their program of study from courses offered by other schools and departments at Yale. These include Anthropology, Architecture, Biology, Biostatistics, Economics, Environmental Health Studies, Geology, Geophysics, History, Law, Organization/Management, Sociology, and Statistics.

II. FORESTRY ACADEMIC STRENGTHS

The major strengths of the forestry program are individualized program of study, interdisciplinary approach, and coursework both within the School and other units of Yale. The general curriculum includes: Ecology, Soil Science, Applied Mathematics, Mapping, Silviculture, Forest Protection and Social Sciences.

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Joint Master's Degree's:

The school is supportive of curricula that work concurrently toward two degrees from different administrative units. Opportunities for development of joint degree programs exist within the Law School, the School of Organization and Management, and the Department of Epidemiology and Public Health.

B. Interdisciplinary Program in Atmospheric Science and Biometeorology:

Areas of interest of this program include the theory of weather and climate, air pollution, urban environmental health, terrestrial and marine ecology, forest meteorology, paleoclimatology, hydrometeorology, and dynamics of atmospheric motions.

C. The School is in close cooperation with the Connecticut Agricultural Experiment Station and the Forest Insect and Disease Laboratory of the USDA Forest Service. There are also working arrangements with the Marine Biological Laboratory at Woods Hole, Massachusetts, and the Institute of Ecosystem Studies of the New York Botanical Gardens. Research programs and faciltities for forest ecosystem studies are located at the USDA Forest Service's Experimental Forest.

D. Yale University maintains an office of the Adviser to Foreign Students and Scholars for matters concerning foreign nationals or the United States Government. It assists foreign students with visa and general immigration procedures; issues documents needed to enter and extend authorized periods of stay; assists in acquiring documents for employment for spouses seeking employment; and arranges for the purchase of medical health insurance. In addition to this office there is an active International Student Center that provides for social interaction among the many foreign students at Yale.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL FORESTRY

A. Programs/courses taught in international forestry (academic year 83-84)

International Natural Resource Problems
Special Projects in International Forestry
Tropical Forestry
Plant Resources of the Tropics

B. Formal/informal linkages between the School and foreign institutions:

Memorandum of understandings are in process with CATIE and the University of Florida. The School has numerous informal ties with wide variety of international organizations and foreign institutions through faculty activities and alumni contacts.

C. Fall, 1982, Faculty statistics for the School of Forestry and Environmental Studies

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 18; Joint and Adjunct Faculty: 12

2. Number of full time forestry faculty on overseas professional assignment:

2 : 5 to 12 weeks abroad in the last 5 years

3. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	1	Land Use Assessment/Planning
(SOCL)	2	Sociology/Land Tenure
(POLY)	2	Forest Policy
(ECON)	2	Forest Economics
(MGMT)	2	Forest Management
(BIOM)	1	Biometrics/Data Processing
(MENS)	1	Mensuration/Inventory
(REMS)	1	Photogrammetry/Remote Sensing
(MAPP)	1	Mapping
(SILV)	2	Silviculture
(ECOL)	2	Forest Ecology
(BIOL)	4	Forest Biology
(SOIL)	1	Forest Soils
(ENTO)	1	Forest Entomology
(PATH)	1	Forest Pathology
(FIRE)	1	Fire Management
(WLMG)	3	Wildlife Management
(PARK)	1	Recreation/National Parks
(URBN)	1	Urban Forestry
(AGRO)	1	Agroforestry

D. The School plans on expanding its international forestry program in part, through the recently funded Tropical Resources Institute establishing a cooperative program between the School and the Puerto Rican Department of Natural Resources.

V. PROGRAM ASSOCIATIONS

A. The School has a memorandum of understanding with the USDA Forest Service - ITR and others.

VI. CONTACTS

A. Dr. John C. Gordon, Dean
Yale University School of Forestry
and Environmental Studies
Sage Hall
205 Prospect Street
New Haven, CT 06511
Telephone: (203) 436-0440

B. Professor Joseph K. Berry, Associate Dean
Yale University School of Forestry
and Environmental Studies
Sage Hall
205 Prospect Street
New Haven, CT 06511
Telephone: (203) 436-0440

C. Dr. Francois Mergen, Director
International Forestry Development
Yale University School of Forestry
and Environmental Studies
Sage Hall
205 Prospect Street
New Haven, CT 06511
Telephone: (203) 436-0020

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forestry and Environmental Studies

1) Number of students enrolled

	U.S.	Foreign
Graduates	151	23
Total	151	23
Total campus student body	11,250	845

2) Geographical place of residence for foreign students:

3 Africa
0 Middle East
5 Asia & Pacific
4 Latin America
10 Non LDC's

3) Graduate student specialization for foreign students:

(ECOL) 7 Forest Ecology
(BIOL) 3 Forest Biology
(MGMT) 3 Forest Management
(SOCL) 5 Forest Sociology
(POLY) 2 Forest Policy
(ECON) 3 Forest Economics
(MAPP) 2 Mapping

C. School setting: the school is located in New Haven, Connecticut, a New England city with a population of approximately 120,000 people. It is positioned approximately half-way between the major cities of New York and Boston, with available transportation systems and nearby recreational facilities. The climate for the region is temperate with an average summer temperature of 21 degrees C. and an average winter temperature of 0 degrees C. The annual precipitation of 1170 mm is fairly evenly distributed throughout the year.

D. Facilities: lab and classroom facilities are available for instruction in mensuration, biometry, forest meteorology, industrial forestry, management, silviculture, remote sensing, sociology, economics, morphology, soils, ecology, physiology, and genetics. The forest library consists of 130,000 volumes with 325 periodicals and 800 serial publications in forestry and environmental studies. Foreign language materials are represented in the library's collection. The University's main library has a collection of over 4 million volumes.

Forest research areas (8,900 acres) are available for investigation to all aspects of intensive management of eastern white pine and other conifers. Camp and accessory buildings are available for instruction and research in silviculture, ecology, wildlife ecology, and other phases of forestry and forest science.

INSTITUTIONAL PROFILE

UNIVERSITY OF FLORIDA

School of Forest Resources & Conservation

Gainesville, Florida 32611

UNIVERSITY OF FLORIDA
Gainesville, Florida

I. FORESTRY CURRICULUM OPTIONS

School of Forest Resources and Conservation

A. Undergraduate

1. Bachelor of Science/Forest Resource & Conservation: Emphasis on interrelationships between the various professional disciplines needed for effective control, management, and conservation of natural resources. Specialization in:

   a. Forestry: Management of forest lands for the production of fiber, maintenance of wildlife habitat, protection of watersheds, grazing of livestock, and enhancement of recreational opportunities.
   b. Wildlife Ecology: Application of basic principles governing the abundance, distribution and ecology of all forms of wild animals (including fish), both game and non-game species. A broad ecological approach to ecosystem management is stressed.
   c. Resource Conservation: Development of a broad or specific program in natural resource conservation. Programs are tailored to individual student needs, in consultation with an assigned advisor.

B. Postgraduate

1. Master of Science:
2. Master of Forest Resources:
3. Doctor of Philosophy:

   Areas of study in forestry include Biometrics, Ecology, Economics, Genetics, Hydrology, Management, Pathology, Physiology, Products, and Silviculture.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECOL) Forest Ecology
(TRIM) Forest Genetics
(PATH) Forest Pathology
(WLMG) Wildlife Management
(FISH) Aquatic Sciences
(WASH) Resource Conservation

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

N/A

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. Inpa Institute Nacional D/Brazil
2. University of San Paulo/Brazil
3. University Center for Agriculture/Cameroon
4. Centro Agronomce Tropical De/Costa Rica
5. Direction Nacional De Par/Dominican Republic
6. Technologic (Conacyt)/Ecuador
7. Institute Hondureno de Am/Honduras
8. Department of Agricultura/Malawi
9. Universidad Catolica/Peru
10. University of Denin/Togo

C. Fall, 1982, Faculty statistics for the School of Forest Resources & Conservation:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 24

2. Number of full time forestry faculty on overseas professional assignment:

   2 : 5-12 weeks abroad in the past 5 years
   1 : 13-26 weeks abroad in the past 5 years
   2 : 27-104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   5 Africa
   1 Middle East
   9 Asia
   48 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (MENS) 26 Mensuration
   (BIOM) 27 Biometrics
   (ECOL) 13 Forest Ecology
   (BIOL) 12 Forest Biology
   (PATH) 9 Forest Pathology
   (WLMG) 37 Wildlife Management
   (FISH) 3 Fisheries Management
   (TRIM) 7 Forest Genetics

D. The School plans on expanding its international program throughz:
1. Recently submitting a proposal to establish an Undergraduate Program in Tropical Resource Management to Department of Education which will involve cooperation of faculty associated with the School, the Florida State Museum, and University Center for International Programs, Latin American/African Studies.
2. Increasing involvement with adjunct faculty from Florida State Museum and U.S. Fish and Wildlife Service who are actively involved in international wildlife programs.
3. Increase involement in University's International Conservation Training Program under direction of adjunct faculty member associated with Florida State Museum, with emphasis on international wildlife conservation and management.
4. Plans for involvement in tropical forestry projects in Latin and Central American countries projected for the next few years.

V. PROGRAM ASSOCIATIONS

Title XII: the University of Florida is committed to improving and expanding the University's staff and program base for implementation and support of international programs in technical assistance including research, technology transfer, evaluation and education. The UF strengthening program is, also, designed to reinforce the ability of the University to provide continuity and security to faculty in l;ong ranbe international programs with developing institutions in developing countries.

VI. CONTACTS

A. Dr. Arnett C. Mace, Jr., Director
School of Forest Resources and Conservation
118 Newins-Ziegler Hall
University of Florida
Gainesville, FL 32611
Telephone: (904) 392-1791

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forest Resources and Conservation

1) Number of students enrolled	U.S.	Foreign
Undergraduates	121	1
Graduates	47	5
Total	168	6
Total campus student body	N/A	N/A

2) Geographical place of residence for foreign students:

1 Africa
1 Middle East
1 Asia & Pacific
1 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(MGMT) 1 Forest Management
(MENS) 1 Mensuration
(ECOL) 1 Forest Ecology
(FISH) 1 Fisheries Management
(TRIM) 1 Forest Genetics

C. School setting: the University, on 1,900 acres, within the city limits of Gainesville, (pop. 100,000), operates out of 179 buildings, 116 of them with classrooms and laboratories. The School has a complete citrus research center.

D. Facilities: general classrooms, teaching laboratories, conference rooms, graduate carrels, specialized and common use research laboratories, offices computer and analytical facilties. Field facilities include pine flatwoods, sandhills, cypress swamps, native range, lakes, marshes and old-growth pine forests. Students use these areas for field laboratories, demonstrations and research activities.

A 6,000 acre sanctuary with ecosystems ranging from wetlands to sandhills, numerous fauna, flora and aquatic ecosystems provide a research and instructional site. Instruction, research and extension activities are conducted in the 2,080 acres of flatwood forest land, a nursery, a small sawmill, a fisheries laboratory and 10 experimental fish ponds.

INSTITUTIONAL PROFILE

UNIVERSITY OF GEORGIA

School of Forest Resources

Athens, Georgia 30602

UNIVERSITY OF GEORGIA
Athens, Georgia

I. FORESTRY CURRICULUM OPTIONS

The School of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forest Resources, concentrations in:
   a. Timber Management and Utilization: Emphasize forest biology and ecology, forest management and protection, structure and utilization of timber, or forest business practices.
   b. Fish and Wildlife Biology: A foundation sequence of biological and zoological coursework, such as vertebrate zoology, natural history, physiology, genetics, and basic ecology. In the second year students will emphasize applied fishery or wildlife ecology.
   c. Forest and Water Resources: Management of forest lands for water quality, quantity, timing and energy dispositions as affected by forest management and alternative land uses.
   d. Forest Science: Program of study in the biological and/or physical sciences. Specialized subject areas include Biometry, Hydrology, Genetics, Entomology, Pathology, Physiology and Soils.

B. Postgraduate

1. Master of Forest Resources (Non-thesis):
2. Master of Science (Thesis required):
3. Doctor of Philosophy:

   Graduate training and research are conducted in the general areas of forest biology and silviculture, forest biometrics and management, forest soils and water resources, forest policy, planning and administration, wildlife and fisheries, and wood technology.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(BIOM) Quantitative Methods, Biometrics
(PLNT) Plantation Management
(PHYS) Tissue Culture
(HYDR) Hydrology
(MGMT) Short Rotation Biomass Plantations
(WLMG) Wildlife Management
(SOIL) Forest Soils
(SILV) Silviculture
(TRIM) Tree Improvement
(FISH) Freshwater Fisheries

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. The Institute of Ecology, Institute of Natural Resources, and the U.S. Forest Service maintain a close relationship with the School of Forest Resources to enhance solution of regional land and resource management problems. Responsible for studies in the tropical and temperate agricultural and forested watersheds.

B. Strong links to Aerial Photogammetry and Remote Sensing facilities in Geography department. Access to University's electron microscope. Strong program in Georgia in bacterial conversion of biomass to energy fuels.

C. Cooperative program with 15 private, industrial forestland-owning companies in the southeast who manufacture pulp, paper, plywood, panel and sawtimber. The Plantation Management Research Cooperative undertakes mensuration, management and biometrics research for the timber industry and provides faculty and graduate students with research opportunities.

D. The School maintains a program of interships for undergraduates each summer with industrial forestry companies. Generally designed for students who intend to seek permanent employment with the companies involved.

E. It is proposed to establish a Center for International Forestry in the School of Forest Resources. The major thrust:
   1. The impact of international trading on the domestic forest resources and forest products industry.
   2. The development and use of the forest resources of overseas countries based on technological developments resulting from research programs.
   3. The manufacturing and marketing potential of forest products to and from overseas countries to develop international trade.
   4. To provide the forest products industry with knowledgeable personnel to participate in policy-making with respect to overseas activities.
   5. The training of forest managers from overseas countries in the methods of industrial forest management.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

   1. The School has a written agreement with the Commonwealth Forestry Institute, Oxford University, to seek opportunities for mutual cooperation and participation in international development.

2. The School of Forest Resources has a cooperative agreement with two universities in Brazil, to encourage forestry development through cooperative efforts, although no forestry programs are yet underway.

C. Fall, 1982, Faculty statistics for the School of Forest Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 37

2. Number of full time forestry faculty of overseas professional assignment:

   9 : 5 to 12 weeks abroad in the past 5 years
   2 : 13 to 26 weeks abroad in the past 5 years
   1 : 27 to 104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

16	Africa
0	Middle East
32	Asia & Pacific
8	Latin America
0	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(MGMT)	24	Forest Management
(BIOM)	6	Biometrics
(MENS)	6	Mensuration, Inventory
(SOIL)	6	Soil Science
(SILV)	7	Silviculture
(NURS)	12	Nursery, Seed Handling
(WASH)	10	Watershed Management
(HYDR)	11	Hydrology
(COMM)	4	Public Communications

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : French

V. PROGRAM ASSOCIATIONS

A. UG/USAID/Sri Lanka/Reforestation and Watershed Management projects: provides the Home Campus Coordinator, technical consultants, and the U.S. short- and long-term training.

B. SECID (Southeast Consortium for International Development): Services offered through the consortium are short term consultancies for overseas projects; training in the U.S. at undergraduate and graduate levels; consultants for design teams in the appraisal stage of projects; and to assist SECID for preparing technical reponses to 'request for proposals'.

VI. CONTACTS

A. Dr. Leon A. Hargreaves, Jr., Dean
School of Forest Resources
University of Georgia
Athens, GA 30602
Telephone: (404) 542-2686

B. Dr. Darl E. Snyder, Director
International Development
111-114 Candler Hall
University of Georgia
Athens, GA 30602
Telephone: (404) 542-7786

C. Dr. Graham H. Brister
Coordinator, International Forestry Program
School of Forest Resources
University of Georgia
Athens, GA 30602
Telephone: (404) 542-7587

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forest Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	134	0
Graudates	53	9
Total	187	9
Total campus student body	25,000	N/A

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
7 Asia & Pacific
2 Latin America
0 Non LDC's

3) Geographical student specialization for foreign students:

(MENS)	1	Mensuration
(MGMT)	2	Forest Management
(SILV)	1	Silviculture
(WASH)	3	Watershed Management
(COMM)	2	Public Relations/Communication (Extension)

C. School setting: located in the town of Athens (77,000 pop.), elevation 600-800 feet above sea level. Mean summer temperature 79 degrees; mean temperature 40 degrees. Average rainfall 50.42 inches per year. Access to three major provinces; the coastal plains, the piedmont, and the mountains. Sixty miles from Atlanta (major international airport).

D. Facilities: equipment includes computer terminals, microcomputers, and apparatus for teaching and research. Adjacent buildings house the Institute of Ecology, the Institute of Natural Resources and the U.S. Forest Service Experiment Station. The School operates the 13,750 acre forest which serves as a field laboratory, an operational sawmill, a forest nursery, an arboretum, fish ponds, and deer-holding areas for wildlife research.

INSTITUTIONAL PROFILE

UNIVERSITY OF IDAHO

College of Forestry, Wildlife and Range Sciences

Moscow, Idaho 83843

UNIVERSITY OF IDAHO
Moscow, Idaho

I. FORESTRY CURRICULUM OPTIONS

College of Forestry, Wildlife and Range Sciences

A. Undergraduate

Department of Forest Products

1. Bachelor of Science/Forest Products, options in:
   a. Harvesting Technology
   b. Wood Science/Engineering
   c. Forest Products Business Management/Marketing

   Areas of emphasis in logging engineering, log transport systems, wood and fiber processing, business and marketing aspects of the various industries.

Department of Forest Resources

1. Bachelor of Science/Forest Resources, options in:
   a. Forest Management with emphasis in forest biology and application of technical forestry principles to forest operations.
   b. Forest Science is designed for those students planning to enter graduate school.
   c. Forest Resource Administration combines biology/business management/administration for resource decision making.

   An eight-week summer camp is required for all options.

B. Other undergraduate programs offered (not under the Departments of Forest Products and Forest Resources): Fishery Resources; Range Resources; Wildland Recreation Management; and Wildlife Resources.

C. Postgraduate

Department of Forest Products

1. Master of Science:
2. Doctor of Philosophy:

   Areas of specialization in forest products, business management, production and science engineering.

Department of Forest Resources

1. Master of Science (thesis & nonthesis options):
2. Doctor of Philosophy:

   Areas of specialization in ecology, silviculture, soils, entomology, forest hydrology, genetics, pathology, reforestation, biometeorology, aerial photo interpretation, remote sensing, extension forestry, ecosystem modeling, forest economics, mensuration, tree physiology, and land use planning.

D. Other postgraduate programs offered (not under the Departments of Forest Products and Forest Resources): Forestry, Wildlife and Range Sciences (intergrated resource management); Fishery Resources; Range Resources; Wildland Recreation Management; Wildlife Resources; and Plant and Soil Science.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(MENS) Computerized Mensuration and Inventory
(PROD) Wood Products
(REMS) Remote Sensing
(TRIM) Forest Genetics
(ENTO) Entomology
(FISH) Fisheries
(WLMG) Wildlife Management
(LAUS) Land Use Planning
(RAMG) Range Management
(AGRO) Agroforestry

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Strengthening grant monies to provide language training and the opportunity for faculty to work on short-term (less than one year) assignments in developing countries. These activities are expected to expand over the next few years.

B. Joint Career Corps (JCC) agreement with the U.S. Agency for International Development (USAID): three of the faculty now have joint appointments with USAID and the UI. On a rotational basis, each faculty member will spend two years in India followed by four years back on campus. When one person returns stateside, the next person will go to India. This program was designed to allow the overseas offices of USAID a mechanism to tap into the scientific community in order to apply the most current technical expertise and judgement to missions plans and programs.

C. In regard to the students, there will continue to be an expansion of our international focus in regard to coursework, and a realization of career opportunities overseas. The School currently offers about a dozen courses on internationally related topics.

D. Every other year, a course in Tropical Ecology is taught in Latin America. Students taking this course go on a four week field trip to learn about tropical ecology and dendrology firsthand.

E. International Student Exchange Program (ISEP) agreement enabling UI students to pay their home campus book, tuition, fees and room and board; but to go to another country's university at no cost other than the transportation to get there.

F. Every year, for the past three years, the School offers a course in international land-use planning, the course has trained over fifty managers and government officials from developing countries.

G. Continuing to work with the forest products industry with regard to international trade.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

The college has an international program which was launched in 1972 and focuses around using the overseas experience of several faculty and the cooperative faculty exchanges with other countries --- The Peoples Republic of China, the National University of Seoul, Korea, University of Istanbul, Turkey, University of Adelaide, Australia and others. Associated with the program is a Peace Corps Consortium contract to assist PCV's and in-country directors in the areas of natural resource management.

B. Formal/informal linkages between the School and foreign institutions:

1. UI/private industries/Mexico:
   Consulting on reforestation and watershed management; 1964-1979.
2. UI/Peace Corps/Honduras:
   Consultant on nersery and reforestation efforts; 1975.
3. UI/Peace Corps/Honduras:
   Consultant on forest research structure and programs; 1976.
4. UI/Taiwan Government:
   Evaluated watershed and agriculture meteorology research projects; 1977.
5. UI/Philippine Government:
   Evaluated watershed management problems; 1977.
6. UI/U.S. Department of State/University of Istanbul/Turkey:
   Reviewed structure of federal forest land management agencies. Developed faculty exchange program; 1977-present.
7. UI/USAID/Korea:
   Evaluate landslide hazards and land stabilization measures; 1977-present.
8. UI/private/Peoples Republic of China:
   Developed faculty and student exchange program; 1979.
9. UI/USAID/USDA Forest Service/Worldwide:
   Determination and evaluation of donor organization involvement in forestry in less-developed countries with particular emphasis on deforestation; 1979.

10. UI/USAID/Morocco:
    Recommendations to Moroccan Forest Service for forest lands use and improvement; 1979.
11. UI/Honduran Forest Agency;
    Tropical Forest Ecology, 1979.
12. UI/USAID/Kenya:
    Instruction in remote sensing; 1979.
13. UI/UN Food and Agriculture Organization/China:
    Instruction in remote sensing; 1980.
14. UI/World Bank/Paraguay, Brazil and Argentina:
    Logging, timber products, manufacturing and marketing; 1968-present.
15. UI/National Science Foundation/Costa Rica:
    Study relationships of climate to wood quality for tropical hardwoods; 1970.
16. UI/Norconsult, Oslo, Norway/Panama:
    Forest Resource Utilization, economic and financial feasibility of sawmill complex; 1976.
17. UI/Private Industry/Indonesia:
    Timber industry development; 1976-1977.
18. UI/USAID/Government of South Korea:
    Assist College of Agriculture, Seoul National University in developing natural resources curriculum; 1977.
19. UI/Honduras:
    Consultation with Honduran Corporation for the Development of Forestry; 1979.

C. Fall, 1982, Faculty statistics for College of Forestry, Wildlife and Range Management:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 61

2. Number of full time forestry faculty of overseas professional assignment:

    14 : 5 to 12 weeks abroad in the past 5 years
    5 : 13 to 26 weeks abroad in the past 5 years
    3 : 27 to 104 weeks abroad in the past 5 years
    2 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

    77 Africa
    9 Middle East
    255 Asia & Pacific
    328 Latin America
    29 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(POLY)	91	Forest Policy, Administration, History, Sociology
(ECON)	35	Forest Economics
(MGMT)	96	Forest Management
(MENS)	2	Mensuration, Biometrics, Inventory
(REMS)	13	Photogrammetry, Remote Sensing, Cartography, Mapping
(ECOL)	40	Silvics, Forest Ecology, Forest Biology
(SILV)	13	Silviculture
(PATH)	2	Forest Pathology
(NURS)	63	Nursery Management, Plantation Management
(WASH)	68	Watershed Management, Hydrology
(WLMG)	104	Wildlife Management
(FISH)	28	Fisheries Management
(RAMG)	41	Range Management
(UTIL)	16	Wood Utilization, Wood and Paper Technology, Wood
(PULP)		Science
(PARK)	23	Forest Recreation
(TRIM)	4	Forest Genetics
(AGRO)	65	Agroforestry
(INTL)	48	International Forestry

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   8 : Spanish, French

V. PROGRAM ASSOCIATIONS

A. Member of UNIFOR

B. Member of CID (Consortium for International Development)
Activities in natural resources:
- o Water & Energy Use Management
- o Video & Range Management
- o Youth and Adult Leadership Development
- o Natural Resource Management

VI. CONTACTS

A. Dr. John H. Ehrenreich, Dean
College of Forestry, Wildlife & Range Sciences
University of Idaho
Moscow, ID 83843
Telephone: (208) 885-7302

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) College of Forestry, Wildlife and Range Sciences

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	368	7
Graduates	147	19
Total	515	26
Total campus student body	3,420	218

2) Geographical place of residence for foreign students:

2 Africa
1 Middle East
4 Asia & Pacific
6 Latin America
6 Non LDC's

3) Graduate student specialization for foreign students:

(ECON)	1	Forest Economics
(ECOL)	1	Forest Ecology
(SOIL)	1	Forest Soils
(SILV)	4	Silviculture
(PATH)	3	Forest Pathology
(WLMG)	7	Wildlife Management
(FISH)	2	Fisheries Management
(RAMG)	1	Range Management
(ENGR)	1	Forest Engineering
(UTIL)	2	Wood Utilization
(PARK)	1	Forest Recreation
(TRIM)	1	Forest Genetics

C. School setting: the city of Moscow, adjacent to the University, (population 16,000), with small town atmosphere, shopping centers, airport and recreational facilities.

D. Facilities: the main building was contains 90,885 square feet of floor space in three stories and 170 rooms and a computer terminal room is available to students. Also, self instructional labs in dendrology and aerial photo interpretation. University Forest; 7,100 acres, serves as outdoor classroom & field demonstration. Forest Nursery of 35 acres, serves as outdoor laboratory for courses in forest planting and forest tree improvement. (1 million seedlings grown per year). Wilderness Field Station, operated by the University, 64 acre tract, used to study wilderness systems and associated values. Supporting the academic program is a 780,000 volume library.

INSITUTIONAL PROFILE

UNIVERSITY OF ILLINOIS

Department of Forestry

Urbana, Illinois 61801

UNIVERSITY OF ILLINOIS
Urbana, Illinois

I. Forestry Curriculum Options

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry:
   Options in General Forestry and Wood Products Industries:
   Summer Field Studies: seven weeks following the sophomore year; fieldwork/classwork with experience in recreation, ecology, measurements, wood utilization and resource management.

B. Postgraduate

1. Master of Science:

   a. Wood Products: study of wood properties, utilization, durability, marketing and preservation.
   b. Forest Ecology: woody biomass production; forest management/silviculture practices on site quality; tropical forest ecology; global carbon dioxide cycling, wetland and bottomland ecology.
   c. Forest Biometrics: emphasizes forest growth modeling, statistical smapling, stochastics, and application of micro-computers to various natural resource problems.
   d. Silviculture: emphasis on woodland management and plantation forestry; biomass production, regeneration, revegetation of disturbed lands, and soil erosion.
   e. Forest Genetics: directed toward development of fast-growing, disease-resistant trees for afforestation of stripped or disturbed areas.
   f. Forest Economics: emphasizes recreation and wildlife economics and multiple-use of forest resource, and environmental aspects of forest recreation use.
   g. Tree physiology: symbiotic nitrogen fixation in trees and forests; the role of mitochondria; and photosynthesis/photosynthate allocation.
   h. Ecology Education: training in environmental education in ecology, and resource management.
   i. Urban Forestry: development of physiological assay; study of nitrogen-fixing trees and shrubs on disturbed sites; development of urban management strategies.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(BIOL) Forest Biology

III. SUPPORTING RESEARCH AND EDUCATIONAL OPPORTUNITIES

N/A

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. University of Illinois/University of Freiburg, W. Germany/Student summer work exchange program.

C. Fall, 1982, Faculty statistics for Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 13

2. Number of full time forestry faculty on overseas professional assignment:

   5 : 1-4 weeks abroad in the past 5 years
   1 : 13-26 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   1 Middle East
   3 Asia & Pacific
   15 Latin America
   8 Non-LDC Countries

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (ECON) 1 Forest Economics
   (BIOM) 2 Biometrics
   (MENS) 1 Mensuration
   (ECOL) 6 Forest Ecology
   (BIOL) 6 Forest Biology
   (SOIL) 3 Forest Soils
   (UTIL) 4 Utilization
   (TRIM) 1 Forest Genetics
   (URBN) 2 Urban Forestry

V. PROGRAM ASSOCIATIONS

1. Title XII: the objectives to be achieved through the strengthening grant:
   1. Expand and substain the faculty and staff resources through personnel development program on a long-term basis.
   2. Develop and expand the capacity to educate domestic and foreign students in development-oriented disciplines.
   3. Expand and maintain faculty abilities and orientation for research with developing countries.
   4. Strengthen capacity of the school to manage program resources contributing to development-oriented activity.

VI. CONTACTS

A. Dr. Gary Rolfe, Head
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110 Mumford Hall
1301 W. Gregory Drive
Urbana, IL 61801
Telephone: (217) 333-2770

B. Dr. William Thompson, Head
International Programs
113 Mumford Hall
1301 W. Gregory Drive
Urbana, IL 61801
Telephone: (217) 333-6420

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) Department of Forestry:

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	73	0
Graduates	22	2
Total	95	2
Total campus student body	35,000	1,600

2) Geographical place of residence for foreign students:

0 Africa
1 Middle East
1 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(MGMT) 1 Forest Management
(URBN) 1 Urban Forestry

C. School setting: located in the cities of Champaign and Urbana (pop. 100,000), is surrounded by prairie and farmland, and is easily accessible by air, rail, and bus. The temperature ranges from 5 to 35 degrees in winter, 75 to 95 degrees in the summer, with an average of 10 to 20 inches of snowfall per year.

D. Facilties: the Wood Science Laboratory is equipped with basic wood-working machines; laboratory for water/soil/plant-tissue analysis, study of microorganisms and plant nutrition studies; greenhouse; field sites for watershed manipulation; computer facilities readily accessable from remote terminals; and field study areas for silviculture.

INSTITUTIONAL PROFILE

SOUTHERN ILLINOIS UNIVERSITY

Department of Forestry

Carbondale, Illinois 62901

SOUTHERN ILLINOIS UNIVERSITY
Carbondale, Illinois

I. FORESTRY PROGRAM OBJECTIVES

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forest Resource Management:
The program includes instruction leading to careers in forest management and production, multiple-use resource management, and the forest products industries. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week summer camp is required after the junior year to give the student practical field experience.

2. Bachelor of Science/Outdoor Recreation Resource Management:
The program provides interdisciplinary training for management of the nation's outdoor recreation heritage. The student travels through selected sections of the United States on a park and recreation field studies session of outdoor recreation and park facilities.

3. Bachelor of Science/Forest Science:
The forest science specialization is available for students to enter a graduate program and concentrate in a given area of knowledge. The program of study may be selected from any subject area within the competence of the Department of Forestry faculty.

B. Postgraduate

1. Master of Science/Forestry:

The Department of Forestry offers three areas of concentration with specialities within each. A combination of specializations is possible.

a. Forest Resource Management:
Program concentrations may include Forest Management, Ecology, Resources Measurements, Resource Economics, Genetics, or Policy and Administration.

b. Outdoor Recreation Resource Management:
Specialization may be in social, managerial, or natural science aspects of Wildlands Recreation and Park Planning/Management in the given graduate program depending on the student's interest.

c. Wood Science and Technology:
A study of the physical, mechanical, or biological properties of wood or woodbase materials. Also, the production and marketing of forest products may be selected.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(TRIM) Forest Tree Genetics and Improvement
(PARK) Forest Recreation
(ECOL) Acidic Deposition Effects on Forest Ecosystems

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

The Department participates in the USDA Forest Service Co-op program and in professional intern programs with both public agencies and forest industry for graduate and undergraduate students.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

Many of the faculty members have substantial field experience and current concern for meeting the needs of the rural poor in LDC's, as evidenced through on-campus training of foreign students and Peace Corps volunteers as well as on-going participant training, institution building, and technical assistance programs abroad.

C. Fall, 1983, Faculty statistics for the Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 14

2. Number of full time forestry faculty on overseas professional assignment:

1 : 5 to 12 weeks abroad in the past 5 years
2 : 13 to 26 weeks abroad in the past 5 years
1 : 27 to 104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

5 Africa
0 Middle East
24 Asia & Pacific
0 Latin America
77 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(MENS)	1	Forest Mensuration
(BIOM)	1	Biometrics, Data Processing
(SOIL)	77	Forest Soils
(PARK)	6	Recreation/Parks
(TRIM)	24	Forest Genetics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

D. The School plans to expand the international aspects of its forestry program through:
   1. Expansion in areas of acid rain effects of forest ecosystems.
   2. Possibly management of Central American Forests.
   3. Increased research in application of farming-systems technology to management of small woodlots.

V. PROGRAM ASSOCIATIONS

Title XII: related to these long-term University goals and Title XII objectives, Southern Illinois University has identified three areas of strength, which evidence realistic potential for application to USAID and LDC agricultural program needs.
   1. Fish production systems (fresh and sea water aquaculture and hydroponics).
   2. Animal production systems (beef, dairy, swine, poultry).
   3. Plant production systems (field crops, forages, soils and fertility, integrated pest management).

The Department participates in the School's BIFAD (Bureau of International Food and Agricultural Development) and small farm demonstration program. Also, several faculty and graduate students participate in the school-wide Forestry-Fruit Production Farming Systems research project.

VI. CONTACTS

A. Dr. George T. Weaver, Chairman
   Department of Forestry
   Southern Illinois University
   Carbondale, IL 62901
   Telephone: (618) 453-3341

B. Dr. Howard Olson
   Department of Forestry
   Southern Illinois University
   Carbondale, IL 62901
   Telephone: (618) 453-3341

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	175	6
Graduates	23	1
Total	198	7
Total campus student body	N/A	N/A

2) Geographical place of residence for foreign students:

1 Africa
0 Middle East
6 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(MGMT) 3 Forest Management
(UTIL) 1 Wood Utilization

C. School setting: the campus is situated at the edge of a level, glacial till plain and rugged, unglaceated hills. The hill region is 1/3 forested, including oak, hichory and other temperate deciduous species. Grain farming predominates in level areas and general farming, including livestock and grain farming, are intermixed with forests in the hill section.

D. Facilities: the University is endowed with a number of different forest types which are conducting or planning research and demonstration programs on forest plots and experimental fields of 3,000 acres.

Through various memoranda of understanding and special use permits access is provided to forested lands and plots on the 297,000 acres all of which are within an hour's drive of Carbondale, and include central hardwoods remnants on virgin bottomlands and slopes.

A research greenhouse operated in cooperation with the U.S. Forest Service is in operation for research and graduate teaching. Greenhouses and growth chamber facilities in the agriculture greenhouses in conjunction with the Department of Plant and Soil Science are also available. Equipped laboratories for physiological, ecological and hydrological research and teaching are maintained.

A variety of laboratories for all phases of forestry research as well as access, through cooperative agreements, to laboratory facilites with other agencies on the campus are in service. The Forest Science Laboratory of the U.S. Forest Service, is available to graduate students for research and other functions. In addition, a wood testing laboratory and a large wood products pilot plant is accessible.

INSTITUTIONAL PROFILE

PURDUE UNIVERSITY

Department of Forestry and Natural Resources

West Lafayett, Indiana 47907

PURDUE UNIVERSITY
West Lafayette, Indiana

I. Forestry Curriculum Options

Department of Forestry and Natural Resources

A. Undergraduate

1. Bachelor of Science/Forestry; Areas of specialization:
   a. Forest Management: forest multiple-use management, emphasis on timber production.
   b. Forest Products and Engineering: emphasis on harvesting, and product utilization.
   c. Forest Recreation: broad curriculum in forest management with emphasis on outdoor recreation management.
   d. Urban Forestry: training for management of woody vegetation in urban environments, and utility right-of-way.
   e. Wildlife Management: training in wildlife resource biology and management for aesthetic, ecological and recreational values.

B. Postgraduate

1. Master of Science
2. Master of Science/Forestry
3. Doctor of Philosophy:

   Areas of specialization: forest biology (ecology, genetics, physiology, soils, silviculture); measurements and operations (economics and marketing, industrial forestry, biometry, operations research, remote sensing, woodlands harvesting, and engineering); outdoor recreation (resource management and planning, leisure participation and behavior); wildlife science (including terrestrial wildlife, fisheries biology, limnology, and aquaculture); and wood science (construction engineering, wood-base composites, and strength design of furniture). Special emphasis is placed on quantitative methods for measurement and management of forest resources.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(UTIL) Wood Utilization - Furniture Engineering
(REMS) Remote Sensing
(BIOM) Biometrics
(NURS) Application of mycorrhizae in nursery and plantation management
(PLNT) Hardwood plantation establishment.
(RECL) Reclamation of disturbed lands

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. Co-op program with industries and Governmental Agencies for undergraduate students.

IV. INSTITUTIONAL INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the school and foreign institutions:

1. Institutional building and faculty exchange:
   a. Univarsidade Federal de v/Brazil
   b. Universidade de Sao Paulo/Brazil
   c. Empresa Brasileira de Pes/Brazil
2. Superior Instituto de Agricultura, Santiago/Dominican Republic: Fuelwood Research and Development Project.

C. Fall, 1982, Faculty statistics for the Department of Forestry and Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 32

2. Number of full time forestry faculty on overseas professional assignment:

   3 : 5 to 12 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   0 Asia & Pacific
   20 Latin America
   15 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (POLY) 2 Forest Policy
   (ECON) 3 Forest Economics
   (REMS) 5 Remote Sensing
   (NURS) 10 Nursery Management
   (UTIL) 15 Wood Utilization

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   8 : Spanish and French

D. The School plans on expanding the international aspects of the forestry program through:

1. Language training.
2. Acquisition of funds for international projects and programs.
3. Initiation of research in international forestry and wildlife problems.
4. Procession of short courses and workshops in forestry and natural resources management for foreigners.

V. PROGRAM ASSOCIATIONS

Title XII: strengthening grant goals:

1. Stuff application of research/experience to LDC problems related to food and nutrition.
2. Expand staff assignments abroad for research and technical assignments in LDC's.
3. Expand programs/knowledge based on past experience in work with LDC's.

VI. CONTACTS

A. Dr. Mason C. Carter, Head
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B. Dr. Woods Thomas, Director
International Programs in Agriculture
Purdue University
West Lafayette, IN 47906
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) Department of Forestry and Natural Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	223	0
Graduates	42	5
Total	265	5
Total campus student body	31,856	1,334

2. Geographical place of residence for foreign students:

0 Africa
3 Asia and Pacific
2 Latin America
0 Middle East
0 Non LDC's

3. Graduate Student specialization for foreign students:

(REMS) 1 Remote Sensing
(ECOL) 1 Forest Ecology
(BIOL) 1 Forest Biology
(UTIL) 2 Forest Utilization

C. School setting: the School is located in an urban area of 80,000. Summers are warm and humid, winters, cold with snow.

D. Facilities: the department manages over 2,000 acres of land in Indiana for instruction, research, and demonstration purposes. Vegetation types, from high-quality northern marshland to virgin hardwood forest.

The Wood Research Laboratory has facilities for research in the engineering uses of wood and wood-base composite materials, including a computer-based, on-line, data acquistion system. Equipped facilities are also available for research in soils, tree physiology, forest genetics, forest ecology, wildlife physiology, and aquatic ecology. Computer terminals are available for remote use of the central computing facilities. Interdisciplinary research laboratories, such as the Laboratory for Application of Remote Sensing (LARS), provide opportunities for research.

INSTITUTIONAL PROFILE

IOWA STATE UNIVERSITY

Department of Forestry

Ames, Iowa 50011

IOWA STATE UNIVERSITY
Ames, Iowa

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry:
Areas of specialization can be chosen to emphasize administration and management, quantitative-analytical techniques, or biological-physical relationships as they apply to the management of forest resources, forest recreation resources, or wood products production and marketing.

a. Options in Forest Resource Management: teaching skills in forest inventories, diagnosing conditions such as disease and overcrowding, prescribing treatment, advising landowners on watershed control, timber harvest and other forest operations involved in resource management.

b. Options in Forest Products: Teaching skills in raw material acquisition, monitoring/supervising plant operations, manufacture and sales of wood products, or in managing personnel.

A six-week field studies program is prerequisite to admissison to junior year forestry courses for students enrolled in forestry.

B. Postgraduate

1. Master of Science (thesis and non-thesis):
2. Doctor of Philosophy:

a. Economics and Marketing: The objective is to prepare students for application of knowledge of economics and marketing to problems arising in forestry and related natural resource management. Programs are developed in such fields as production economics, marketing, resource policy formation, operations analysis, computer technology, and international trade and development.

b. Administration and Management: The objective is to provide advanced study at the master's level in the combined disciplines of biology, wood science, biometry, economics, business administration, public administration, and resource planning.

c. Biometry: The objective is to prepare students for competence in the application of specialized knowledge of mathematics, statistics, and computer technology, to problems arising in the management of forests and other related resources.

d. Biology-Wood Science: The objective is to give students an education in the fundamental aspects of biology, tree physiology, soils, and/or wood science and technology to prepare them for research in these areas.
Most course work is taken in biochemistry, biophysics, genetics, plant physiology, soils, and statistics. Close cooperation is maintained with the physiology group of the Department of Agronomy as well as the department of Bacteriology, Genetics, Chemistry, Engineering Mechanics, and Industrial Engineering.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(BIOL) Forest Biology
(BIOM) Forest Biometry
(ENTO) Pest Management
(SOIL) Forest Soils
(ECON) Forest Economics
(PROD) Wood Science
(INTL) International Studies Program

III. SUPPORTING RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. The Department of Forestry has strong links on campus with Departments of Economics, Statistics, Agronomy, Soils, Botany, Entomology and Pathology.
B. Management Science draws upon Industrial Engineering, Computer Science and Economics.
C. The Biological Science incorporates genetics/plant science into watershed management, pest management and plant physiology.
D. International Studies program at both the university and college level. While the programs are for U.S. students, foreign students play a role in preparing these students for overseas work. There are linkages with administrative management staffs.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. ISU/USAID/Peru: Planning of rational economic and agricultural development strategies; agrarian reform and food marketing policies; 1962 to date.
2. ISU/USAID/Title XII: To strengthen within the University competence in economics of agricultural development for the less developed countries, including staff support services for solutions to problems; 1970 to date.
3. ISU Engineering, Sciences and Humanities/National Science Foundation/Turkey: To continue work in fundamentals of soil behavior courses with students specializing in soil engineering and in organizaing a soil research laboratory; 1973-74.
4. ISU Agriculture/USAID/Thailand: Sector analysis research program leading to improved economic planning in agriculture and multigoal attainment, emphasizing food supply, employment creation, economic diversification and trade rationalization; 1973.
5. ISU Agriculture/National Science Foundation/Korea: To study soybean culture; 1974 to date.
6. ISU Agriculture/University of Nebraska/Morocco: To study dryland farming in the 200-400 rainfall zone of Morocco; 1977.
7. ISU Agriculture/USAID/Costa Rica: To develop a Latin America Planning Network; 1977-78.
8. ISU Agriculture/USAID/Colombia: To conduct research in corn and bean interactions in mixed culture; 1977-79.
9. ISU Sciences and Humanities/National Science Foundation/El Salvador, Honduras: To conduct field studies on the grass flora of Central America; 1977-79.

C. Fall, 1982, Faculty statistics for the Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 12.

2. Number of full time forestry faculty of overseas professional assignment:

   2 : 5 to 12 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   1 Asia & Pacific
   9 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated peson weeks):

   (POLY) 5 Forest Policy
   (SOCL) 4 Sociology and Land Tenure
   (PATH) 6 Pathology
   (WASH) 1 Watershed Management
   (TRIM) 3 Forest Genetics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

V. PRGRAM ASSOCIATIONS

A. Midamerica International Agricultural Consortium (MIAC): Technical assistance in agriculture (including forestry, fisheries and wildlife biology), sector analysis, institution development, and training.

B. Development Advisory Team (DAT) Training Program: Intensive 1-week training program conducted semi-annually for faculty, administrators and graduate students.

VI. CONTACTS

A. Dr. George Thomson, Department Head
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B. Dr. Fred S. Hopkins, Jr.
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C. Dr. J. T. Scott
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Iowa State University
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Telephone: (515) 294-4866

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	150	6
Graduates	36	10
Total	186	16
Total campus student body	26,000	N/A

2) Geographical place of residence for foreign students:

2 Africa
1 Middle East
11 Asia & Pacific
1 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(MENS) 1 Mensuration, Inventory
(BIOM) 1 Biometrics, Data Processing
(SILV) 1 Silviculture
(ECOL) 1 Forest Ecology
(BIOL) 5 Forest Biology

C. School setting: the School is located in Ames (pop. 46,000) surrounded in rural (intensive agriculture) environment. Percipitation average 30-5 inches per year. Summer temperature average 75 degrees, winter temperature average 20 degrees.

D. Facilities: facilities include a greenhouse, reading and club rooms for students, a computer area, publications office, darkroom, and teaching and research laboratories which feature growth chambers, aerial photo interpretation equipment, a dry kiln, and wood testing machines. The 300-acre forest is also used for class study and research.

INSTITUTIONAL PROFILE

UNIVERSITY OF KENTUCKY

Department of Forestry

Lexington, Kentucky 40546-0073

UNIVERSITY OF KENTUCKY
Lexington, Kentucky

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry:
   Educates and trains in the theory and practice of forestry and wood utilization as well as the broad concepts of forest land management. Options of specialization are available in:
   a. Forest Biology
   b. Forest Management
   c. Forest Products Science

2. Students attend an eight week summer camp between the junior and senior year.

B. Postgraduate

1. Master of Science/Forestry:
2. Master of Science/Agriculture-Forestry, options of study in:

   a. Biometrics/Mensuration
   b. Ecology
   c. Economics
   d. Hydrology/Watershed Management
   e. Recreation
   f. Silviculture/Soils
   g. Tree Physiology
   h. Wildlife Ecology
   i. Wood Science

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(BIOL) Forest Biology
(MGMT) Forest Management
(ECON) Forest Economics
(BIOM) Forest Biometrics

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

N/A

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. UK/USAID/Indonesia: Advanced training for faculty for developing agricultural programs at several universities.

C. Fall, 1982, Faculty statistics for Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 16

2. Number of full time forestry faculty on overseas professional assignment:

   2 : 5-12 weeks abroad in the past 5 years
   1 : 13-26 weeks abroad in the past 5 years
   3 : 27-104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   12 Asia & Pacific
   0 Latin America
   126 Non-LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (MENS) 14 Forest Mensuration
   (ECOL) 12 Forest Ecology
   (BIOL) 15 Forest Biology
   (SILV) 27 Silviculture
   (ENTO) 5 Forest Entomology
   (PATH) 60 Forest Pathology
   (UTIL) 3 Utilization
   (TRIM) 38 Forest Genetics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : French

D. The School is expanding its international forestry program through USAID contract to work with Indonesia on developing a number of Agricultural programs on several university campuses, at least one of these campuses will have a forestry program. The faculty will be involved with planning and establishing teaching, research, extension programs, and graduate training of Indonesian faculty (first in Spring 1983).

V. PROGRAM ASSOCIATIONS

1. SECID (Southeast Consortium for International Development)

VI. CONTACTS

A. Dr. Charles E. Branhart
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B. Mr. Herbert F. Massey
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C. Dr. Bart A. Thielges
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D. Dr. Deborah B. Hill
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University of Kentucky
Lexington, KY 40546-0073
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982), Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	69	0
Graduates	16	1
Total	85	1
Total campus student body	24,000	529

2) Geographical place of residence for foreign students:

0 Africa
1 Middle East
0 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(HYDR) Hydrology

C. School setting: the University of Kentucky is located in the rolling plains of the inner bluegrass in central Kentucky. Annual precipitation averages 45 inches, and average summer and winter temperatures are 67 degrees and 39 degrees, respectively.

D. Facilities: the departmental teaching and research facilities on the main campus are supported by a Wood Utilization Center and a 15,000-acre research and teaching forest, located in the mountains of eastern Kentucky. The Department also has access to surface-mined lands for reclamation studies.

INSTITUTIONAL PROFILE

LOUSIANA STATE UNIVERSITY

School of Forestry & Wildlife Management

Baton Rouge, Louisiana 70803

LOUSIANA STATE UNIVERSITY
Baton Rouge, Lousiana

I. FORESTRY CURRICULUM OPTIONS

School of Forestry & Wildlife Management

A. Undergraduate

1. Bachelor of Science/Forestry:
   Areas of specialization include Forest Management, Industrial Forestry, Wood Utilization, Forest Science, and Forestry Wildlife.

B. Postgraduate

1. Master of Science:
2. Doctor of Philosophy:

   Areas of concentration for the Ph.D. with a major in forestry include Forest Biology, Forest Management, and Wood Science. Areas of concentration for the Ph.D. with a major in Wildlife and Fisheries Science include Wildlife Habitat Management, Aquaculture, Riverine and Estuarine Ecology.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(MGMT) Management
(SILV) Silviculture
(UTIL) Utilization

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. Coordination with the Louisiana State University Agricultural Center (Louisiana Agricultural Experimental Station and Louisiana Cooperative Extension Service)

2. U.S Fish and Wildlife Service internship program is available.

3. Latin American Studies Institute: To promote scholarship, research, and teaching primarily through graduate training and research in Latin American culture, development, geography, history, and political/social change, with special emphasis on Mexico, Central America, the Caribbean area, and Brazil.

4. Louisiana Water Resources Research Institute: Supports projects in water research by using facilities and professional skills of the regular University departments. Research preference is given to projects that have a significant training feature for students in the fields of hydrogeology, surface and ground water, or the legal, engineering, and economic phases of water development.

5. Institute for Environmental Sciences: International in scope, focuses LSU's educational resources on all aspects of waste disposal and as a center for the study and control of the chemical environment. Environmental problems in the field of agriculture, nutrition, food science, and certain aspects of psychology and sociology are studied. Specific projects include the significance of food quality and food contamination, benefits and hazards of using herbicides and pesticides, and the more subtile effects of such everyday environmental factors as temperature, humidity, and noise.

6. Institute for Environmental Studies: Responsible for coordinating programs of a campus-wide nature in environmental studies. Its functions are to promote and conduct research, to disseminate knowledge, and to provide general public service directed toward conserving environmental quality.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1983, Faculty statistics for School of Forestry & Wildlife Management:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 13

2. Number of full time forestry faculty of overseas professional assignment:

   2 : 1 to 4 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   6 Asia & Pacific
   0 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (SILV) 2 Silviculture
   (UTIL) 6 Utilization

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

V. PROGRAM ASSOCIATIONS

A. Title XII: LSU proposed to further its involement in international agriculture and extension programs in development of rice, crop and livestock enterprises associated with rice production.

VI. CONTACTS

A. Dr. Thomas Hansbrough, Director
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B. Dr. Erin L. Schmidt, Director
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C. Charles A. Schexnayder, Director
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LSU Agricultural Center
Baton Rouge, LA 70803
Telephone: (504) 388-6963

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) School of Forestry & Wildlife Management

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	112	6
Graduates	22	1
Total	134	7
Total campus student body	29,864	N/A

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
3 Asia & Pacific
3 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students:

(UTIL) 1 Utilization

C. School setting: the University, a part of Baton Rough (pop. 400,000), is located on a 1,944 acre tract of land on the southern edge of the city, bordering the Mississippi River.

D. Facilities: facilities available for instructional purposes include over 4,500 acres of farm and timber land with the necessary buildings for the care and study of crops, livestock, poultry, wildlife and forests, as well as, computer facilities and laboratories.

INSTITUTIONAL PROFILE

UNIVERSITY OF MAINE

College of Forest Resources

Orono, Maine 04469

UNIVERSITY OF MAINE
Orono, Maine

I. FORESTRY CURRICULUM OPTIONS

College of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forestry (four sequences):
   a. Forest Management: Teaches principles of land management and planning, with an emphasis on the knowledge and application of multiple use management.
   b. Forest Utilization: A background in industrial forestry, with emphasis on forest business, harvesting, and processes involving forest products.
   c. Forest Business Administration: A five-year program offered jointly by the College of Forest Resources and the College of Business Adminstration. Completion results in BS in Forestry and MBA.
   d. Forestry Options: Students may specialize in computing, conservation information (and education), forest biology, protection, recreation, land use planning, surveying, forest soils, urban and community forestry, and watershed management.

2. Bachelor of Science/Wood Technology: Provides a background in the applied sciences and technolgy for the study of wood and wood-based materials. Involves conversion, distribution and use of wood and wood products, materials research and development.

3. Bachelor of Science/Forest Engineering: Training necessary for design, planning, and management of tree harvesting systems and loggging equipment in a natural environment, involving the application of engineering/forest management for the production of wood products.

4. Bachelor of Science/Forestry, Recreation and Park Management: Program combining education in the biological, social, and behavioral sciences in preparation for recreation resource-user management, and interpretation.

5. A five year Pulp and Paper certificate: Pulp and paper management.

B. Postgraduate

1. Master of Science/Forestry:
2. Master of Science/Wildlife Management:
3. Master of Science/Resource Economics:
4. Master of Science/Resource Utilization:

The Master of Science in Resource Utilization, which is offered jointly with the Departments of Agricultural and Resource Economics and Plant and Soil Sciences, is not intended to be a professional degree but instead provides students from diverse backgrounds an opportunity to prepare themselves in the use, development and conservation of natural resources.

Postgraduate students may specialize in a wide range of specialties in the College: Wildlife Management; Wood Science and Technology (Products and Utilization); Forest Biology (Silviculture, Forest Genetics, Soils, Entomology and Pathology); Forest Management (Inventory, Remote Sensing, Recreation, Economics, Harvesting and Policy); and Resource Utilization.

5. Doctor of Philosophy/Forest Resources:

The program is open to students who wish to specialize in a wide range of topics.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ENGR) Forest Engineering
(POLY) Forest Policy
(SILV) Silviculture
(ENTO) Forest Entomology
(WLMG) Wildlife Management
(REMS) Remote Sensing.
(COGR) Computer Graphics
(SYAN) Systems Analysis

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

- Forestry Business Administration program jointly administered with the College of Business Administration - may lead to a one-year program M.B.A.
- Forestry Engineering program jointly administered with the Agricultural Engineering Department and College of Engineering and Science.
- Forest Recreation jointly with Agriculture and Resource Economics.
- Co-op study programs: Agreements with the U.S. Forest Service and forest industries.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. College Freres/Haiti.
2. Rural Life Training Center/Haiti: Agroforestry extension training; designing school curriculum for Haiti universities; faculty exchange, research in intercropping methods. Longterm - 3 years.

C. Fall, 1983, Faculty statistics for College of Forest Resources:

1. Number of full time (9-month and 12-month) teaching/research faculty: 31

2. Number of full time forestry faculty on overseas professional assignment:

   2 : 5 to 12 weeks in the past 5 years
   1 : 13 to 26 weeks in the past 5 years
   1 : 27-104 weeks in the past 5 years
   1 : 104+ weeks in the past 5 years

3. Aggregated person weeks forestry faculty by geographical place of assignment:

2	Africa
0	Middle East
17	Asia & Pacific
26	Latin America
135	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	10	Land Use Planning
(ECON)	12	Forest Economics
(MGMT)	22	Forest Management
(AGRO)	18	Agroforestry
(REMS)	41	Remote Sensing/Photogrametry
(MAPP)	16	Mapping
(SILV)	5	Silviculture
(ENTO)	10	Forest Entology
(WLMG)	36	Wildlife Management
(ENGR)	4	Forest Engineering
(UTIL)	6	Wood Utilization

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   3 : French, Creole

V. PROGRAM ASSOCIATIONS

1. Specific activities sponsored by Title XII:
   a. 1 faculty member to Asia
   b. 3 faculty members to Haiti
   c. 1 faculty member to Women in Development Training

2. Consortia:
   a. SECID (Southeast Consortium for International Development)
   b. NECID (Northeast Consortium for International Development)

VI CONTACTS

A. Dr. Gregory Brown, Dean
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B. Dr. Marshall Ashley, International Forester
College of Forest Resources
202 Nutting Hall
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C. Dr. Franklin Roberts
International Agricultural Programs
1 Winslow Hall
University of Maine
Orono, ME 04469
Telephone: (207) 581-3230

VII. ADDITIONAL INFORMATION

1. Accreditation: Society of American Foresters

2. Student body profile (Fall, 1982) College of Forest Resources:

1) Number of students enrolled	U.S.	Foreign
Undergraduates	590	6
Graduates	65	2
Total	655	8
Total campus student body	8,000	2,000

2) Geographical place of residence for foreign students:

1 Africa
0 Middle East
1 Asia & Pacific
2 Latin America
5 Non LDC's

3) Graduate student specialization for foreign students:

(POLY)	2	Forest Policy
(ECON)	1	Forest Economics
(WLMG)	2	Wildlife Management

C. School setting: cosmopolitan campus in a New England setting located one mile from Orono (pop. 10,000), surrounded by ski slopes, ponds, lakes, streams and the Maine coastline.

D. Facilities: lands provide field laboratories suitable for a large variety of studies. The College is located in Nutting Hall which contains laboratory facilities for tree physiology, bioenergetics, calorimetry, remote sensing and photogrammetry, forest products, forest recreation, and computer services. Data computing and processing services available. Other laboratory space and facilities are available across campus to faculty and graduate students including greenhouses, electron microscopes, heavy equipment, field laboratory trailer, a small sawmill, and state and federal research areas.

INSTITUTIONAL PROFILE

UNIVERSITY OF MASSACHUSETTS

Department of Forestry and Wildlife Management

Amherst, Massachusetts 01003

UNIVERSITY OF MASSACHUSETTS
Amherst, Massachusetts

I. FORESTRY CIRRICULUM OPTIONS

Department of Forestry and Wildlife Management

A. Undergraduate

1. Bachelor of Science/Forestry:
The forestry curriculum emphasizes dendrology, mensuration, forest ecology, soils, timber harvesting, protection, economics, photogrammetry, silviculture, and management.

2. Bachelor of Science/Wildlife and Fisheries Biology:
Deals with the study and management of bird, fish, and mammal populations in the wild. As such, it is the application of ecological principles for the preservation and exploitation of wild animals, and fish.

3. Bachelor of Science/Wood Science and Technology:
Applied courses in specific areas of technology, primary timber conversion, seasoning and preservation, machining, gluing, finishing, and chemical modification.

4. Bachelor of Science/Natural Resource Studies:
Individualized courses tailored to specific academic objectives.

B. Postgraduate

1. Master of Science:
2. Doctor of Philosophy:

For the Forestry Program, areas of specialization include Soils, Ecology, Physiology, Silviculture, Management, Economics, Hydrology, Planning and Mensuration.

For the Wood Technolgy Program, specialities include Wood Science and Technology, Product Development, Processing Operations, Research and Marketing, with emphasis on structural elements, components and systems for housing.

Students with nontechnical backgrounds may be allowed to select a non-thesis option for the Master of Science degree.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECOL) Forest Ecology and Modeling
(WLMG) Wildlife Ecology Modeling
(ECON) Forest Economics
(POLY) Forest Policy
(PALY) Palynology

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

In addition to the University faculty members there are several scientists with the U.S. Forest Service, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service who are members of the graduate faculty. The Department has close working relations with state and federal forestry, fisheries, wildlife and marine fisheries agencies.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. Forestry school "twinning" relationship with: University of Zaire; specific to forestry.

C. Number of full time (9-month and 12-month) teaching/research forestry faculty: 18

2. Number of full time forestry faculty on overseas professional assignment:

   3 : 27-104 weeks abroad in the last 5 years

3. Forest faculty by geographical place of assignment (in aggregated person weeks):

26	Africa
0	Middle East
40	Asia & Pacific
15	Latin America
0	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	4	Land Use Assessment, Planning
(POLY)	5	Forest Policy
(MGMT)	6	Forest Management
(SOCL)	5	Sociology, Land Tenure
(SOIL)	40	Forest Soils
(AGRO)	2	Agro (village) Forestry
(MGMT)	40	Wildlife Management

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : French

V. PROGRAM ASSOCIATIONS

Title XII Money

VI. CONTACTS

A. Dr. William W. Rice
Department of Forestry and Wildlife Management
University of Massachusetts
Amherst, MA 01003
Telephone: (413) 545-2665

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Forestry

B. Student body profile (Fall, 1982) Department of Forestry and Wildlife Management

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	295	2
Graduates	56	5
Total	351	7
Total campus student body	25,000	1,100

2) Geographical place of residence for foreign students

2 Africa
0 Middle East
3 Asia & Pacific
1 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(MGMT) 1 Forest Management
(INTR) 1 International Forestry

C. School setting: is located in a small New England college town in western Massachusetts. The 1,200 acre campus, with 150 buildings, is set in a "rural-cosmopolitan" environment. Fringed by the foothills of the Berkshire range and surrounded by farmland, tobacco farms, and apple orchards.

D. Facilities: offices, classrooms, and laboratories, plus a wood processing center and several smaller research buildings total over 40,400 acres of forest lands for field instruction and research. Graduate students conduct research in Massachusetts at various locations in North America, and overseas. Close cooperation with state and federal agencies provides access to forests, refuges, and laboratories for graduate study.

INSITUTIONAL PROFILE

MICHIGAN STATE UNIVERSITY

Department of Forestry

East Lansing, Michigan 48824

MICHIGAN STATE UNIVERSITY
East Lansing, Michigan

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry:
Provides a general professional forestry program and a basis for the development of M.S. and Ph.D. graduate programs in forest science specialities. Elective courses (tracks) may be chosen by the student to strengthen the background in professional natural resources courses, forest products, natural science, social science, mathematics and statistics, business and administration, communication arts, or humanities.

2. Natural Resources and Environmental Education: prepares students for teaching in secondary schools or junior colleges as certified teachers.

B. Postgraduate

1. Master of Science:

The M.S. degree is offered for either a professional program in forest management or administration or a specialty program. It is open to students with nonforestry backgrounds as well as to foresters. A forestry specialty program will draw from other departments of the University to provide courses appropriate to forestry specialties--biometrics, genetics, physiology, soils and nutrition, ecology, hydrology, recreation, economics, management or administration, wood chemistry, wood physics, wood mechanics, and wood pathology.

2. Doctor of Philosophy:

The Ph.D. degree in forestry is also open to students from non-forestry backgrounds as well as foresters. It is offered for study in forestry specialities in depth.

3. Master of Science/Forestry and Master of Business Administration:

To prepare foresters for the management of forest industry firms, the program can be completed in two years. Upon completion of the M.S. degree requirements, the student transfers enrollment to the Graduate School of Business Administration, for a required core of seven functional courses, followed by a major area of concentration in accounting, finance, personnel-human relations, management science, marketing, or materials and logistics management.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECON) Forest Economics
(POLY) Forest Policy and Administration
(MGMT) Forest Management
(TRIM) Forest Genetics
(PROD) Wood Science

III. SUPPORTING RESEARCH AND EDUCATION OPPORTUNITIES

A. The Institute of Water Research serves to promote and coordinate water research conducted on campus. It develops interdisciplinary plans and research programs and assists in the development of departmental resources in support of water research.

B. U.S. Forest Service Research Unit
Field Location research unit on campus. There are three research projects in the unit: 1) Forest fire management in the Northeast; 2) Forest plantation entomology; and 3) Disposal of municipal wastes on forest land. The unit has eight scientist and ten supporting staff. Several departmental research projects are conducted cooperatively with the Forest Service research unit.

C. The Forest Service Fellow Program of Graduate Studies:
Foresters, range managers, game biologists, recreation specialists, and other professionals who had entered or were about to enter middle management roles in their organizations, enroll in either the M.S. or Ph.D. programs in the Department of Forestry in resource economics, management systems, administration, communications, and policy.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Program/courses taught in international forestry:

Forestry in International Development, Senior level program for graduate and foreign forestry students.

B. Formal/informal linkages between the School and foreign institutions:

1. Faculty Exchange; Institutional Building Program/Indonesia.
2. Faculty Exchange; National Taiwan University, Chungching University/Taiwan.
3. Development of a National Forestry Program, assessment of natural resources, and establishment of forestry extension service/Dominican Republic.
4. Institutional Building, faculty exchange with Ministry of Education and Culture through direct contribution to university forestry programs/Brazil.

5. Alternative Rural Development Strategies (Research, technical assistance, and training); Department of Agricultural Economics/Cameroon, Zambia, Bolivia, Senegal.
6. Comprehensive Resource Inventory and Evaluation System (Research and training); Department of Resource Development/Dominican Republic, Honduras, Costa Rica.
7. Development of Academic Training; Consortium - CODOT/Oriented to Saudi Arabia.
8. Rural Development - Michigan Partners (Technical assistance, training, exchange, institution development); Inter-disciplinary with major inputs from the Department of Cooperative Extension/Belize and Dominican Republic.
9. Integrated Rural Development (Applied research, technical assistance and training); Department of Agricultural Economics/Upper Volta.
10. Latin American Planning and Policy Analysis Network (Research, training and technical assistance); Department of Agricultural Economics/Latin America.
11. Higher Education in Agriculture (Institution Development); Consortium - MUCIA Interdisciplinary/Indonesia.
12. Master's Degree Training of Sahelian Students; Department of Agricultural Economics/Sahel Region of Africa.
13. Nutrient Effects of Economic Policy (Research); Department of Agricultural Economics/Sierra Leone and Nigeria.
14. Rural Small Scale Industries and Off-Farm Employment (Research and Training); Department of Agricultural Economics/Caribbean, Bangladesh, Thailand, Egypt.
15. Title XII Fisheries and Aquaculture Collaborative Research Support Program; CIFAD - Consortium; Fisheries and Wildlife/Worldwide.

C. Fall, 1982, Faculty statistics for Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 19 plus 8 joint appointees with other departments.

2. Number of full time forestry faculty on overseas professional assignment:

   9 : 13 to 26 weeks abroad in the past 5 years

3. Forestry Faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   20 Middle East
   28 Asia & Pacific
   80 Latin America
   0 Non LDC's

4. Type of overseas tehcnical (specialization) assignments (in aggregated person weeks):

   (POLY) 35 Forest Policy
   (ECON) 30 Forest Economics
   (MGMT) 24 Forest Management
   (UTIL) 18 Utilization
   (TRIM) 20 Forest Genetics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   4: Spanish

D. The School plans on expanding its international forestry program through: reception to foreign students to encourage the development of this portion of the student body. Foreign alumni are now in positions where they can direct new students to Michigan State. As a department and as a unit of the University, plans to bid on many contracts for forestry assistance to developing countries. Expect more involvement in such aid programs.

V. PROGRAM ASSOCIATIONS

1. Title XII: strengthening grant to:
   a. Further develop MSU educational program for foreign and domestic graduate students in careers involved with less developed countries.
   b. To contribute to the development through collaborative applied research, advisory services, educational programs, and assistance in the building of indigenous institutional capabilities.
   c. To strengthen capacity acquired by faculty involvement in international research and educational programs.

2. MUCIA (Midwest Universities Consortium for International Activities):

   a. MSU/DEURES/Africa: Strengthening African Agricultural Research Project.
   b. MSU/USAID/Nepal: Development of Institute for Agriculture and Animal Sciences.

VI. CONTACTS

A. Dr. Larry Tombaugh, Chairman
Department of Foresty
Michigan State University
East Lansing, MI 48824
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B. Dr. Lee James
Director of International Programs
Department of Forestry
Michigan State University
East Lansing, MI 48824
Telephone: (517) 355-8239

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	86	2
Graduates	46	21
Total	132	23
Total campus student population	40,000	1,450

2) Geographical place of residence for foreign students:

10 Africa
1 Middle East
7 Asia & Pacific
3 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 11 Forest Economics
(MGMT) 3 Forest Management
(ECOL) 3 Forest Ecology
(TRIM) 3 Forest Genetics
(TRIM) 1 Wood Science

C. School setting: the University campus is essentially an arboretum-park. The main campus is a rolling, wooded area of some 2,000 acres bisected by the winding Red Cedar River. In addition to their aesthetic function, the campus plantings are a vast collection serving the needs of teaching, research and observation in the fields of forestry, botany, horticulture, and landscape architecture. Species and varieties of trees and shrubs number more than 8,000, the botanic garden has over 5,000 herbaceous plant species and varieties.

D. Facilities: south of, and adjacent to, the main campus is an area of more than 3,000 acres devoted to agricultural and forestry research. MSU also operates out of state facilities involving holdings of some 13,000 acres including the forest experiment stations, agricultural experiment stations, and the biological station.

INSTITUTIONAL PROFILE

MICHIGAN TECHNOLOGICAL UNIVERSITY

School of Forestry and Wood Products

Houghton, Michigan 49931

MICHIGAN TECHNOLOGICAL UNIVERSITY
Houghton, Michigan

I. FORESTRY CURRICULUM OPTIONS

School of Forestry and Wood Products

A. Undergraduate

1. Bachelor of Science/Forestry; areas of specialization include:
   a. Forest Business - Deals with resource management, wood utilization, economics, and marketing.
   b. Forest Management - Includes the study of ecology, silviculture, pathology, entomology, wood technology, recreation, and wildlife.
   c. Forest Soils - Includes the earth sciences and their impact on forest growth and watershed management.
   d. Intensive Forestry (Northern Regions) - Includes those sciences related to plant selection, propagation, genetics, and cell engineering.

2. Bachelor of Science/Wood and Fiber Utilization; areas of concentration on:
   a. Forest Products Industrial Management - Forest products marketing, production management, and business administration in conjunction with forest products technology.

   b. Wood Science and Technology - The chemical and mechanical processing of wood and fiber products, or the biological, chemical, physical, and mechanical nature of wood, fiber, and their products.

3. Bachelor of Science/Land Surveying:
   Making, assembling, and interpreting reliable scientific measurements and information relative to the location, size, shape, or physical features of the earth.

4. Bachelor of Science/Forest Engineering:
   Forest engineering applies engineering principles and techniques to the problems of the forest industry.

   Michigan Tech's forest engineering option is a four and a half-year joint program with the College of Engineering leading to a dual degree: B.S. in Forestry and B.S. in Engineering. After basic preparation, along with core engineering and other University-required courses, you may specialize in one of the following areas:

   a. Harvesting - Emphasizes design, installation, and maintenance (including erosion control) of the operations necessary to remove wood from the forest.

b. Equipment Design - Emphasizes the design of harvesting system machines and equipment.

c. Land Surveying - Students in this specialization are encouraged to earn a dual degree in both land surveying and engineering, as this is often considered preferable by industry.

College of Engineering (Cooperatively with the School of Forestry)

5. Bachelor of Science/Engineering:
   Study of wood as a material in structures, designed for an increased number of specific end uses and this then opens up additional areas of wood engineering.

B. Postgraduate

1. Master of Science/Forestry:

   Permits independent study in a broad spectrum of the natural resources and their improved management. Interdisciplinary studies are encouraged and may inludde course work in engineering and science.

School of Technology (2-year Program)

C. Associate Degree in Applied Science/Forest Technology:

Forest technicians are expected to apply modern forestry practices in field situations as determined by the policies and management plans of professional foresters. Training includes classroom and laboratory exercises on campus, as well as extensive field work.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(FSCI) Forest Science
(ENGR) Forest Engineering

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Students in the Department of Forestry may elect to use the co-op plan. Cooperative education provides a blend of theory and practical experience that is helpful to the forestry student in defining educational objectives, deciding on career directions, and preparing for forestry work.

Internship programs are offered with the USDA Forest Service.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: Three faculty members are involved in soil research in Mexico, New Zealand, India.

C. Fall, 1983, Faculty statistics for School of Forestry and Wood Products:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 25

2. Number of full time forestry faculty on overseas professional assignment:

   2 : 5-12 weeks abroad in the past 5 years
   1 27-104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   26 Asia & Pacific
   4 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (SOIL) 59 Forest Soils
   (WLMG) 5 Wildlife Management

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

1. Forest Science Lab/North Central Forest Experiment Station: Three projects in forest engineering.
2. Intermountain Forest and Range Experiment Station
3. National Park Service.
4. Soil Conservation Service/Michigan.

VI. CONTACTS

A. Lindo Bartelli, Head
Department of Forestry
Michigan Technological University
Houghton, MI 49931
Telephone: (906) 487-2204

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982), Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	218	1
Graduates	25	1
Total	243	2
Total campus student body	N/A	N/A

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
1 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(UTIL) 1 Utilization

C. School setting: Michigan Tech's main campus stretches for about a mile along Portage Lake in the City of Houghton. Houghton is 550 miles northwest of Detroit and 450 miles north of Chicago. The main campus consists of twenty-nine buildings housing laboratories, classrooms, lecture halls, living accommodations, and library. Located on the Keweenaw Peninsula, which hooks into Lake Superior, situated in an area of classic Precambrian geology with many natural lakes, streams and forests in the immediate vicinity.

D. Facilities: the School forest (old growth Northern Hardwoods to Jack Pine) - located at Alberta, forty miles south of Houghton - functions as an educational, research, and demonstration facility, in forest management and wood utilization. Several sawmills and logyards nearby provide real life facilities for sawlog evaluation and utilization studies.

INSTITUTIONAL PROFILE

THE UNIVERSITY OF MICHIGAN

School of Natural Resources

Ann Arbor, Michigan 48109

UNIVERSITY OF MICHIGAN
Ann Arbor, Michigan

I. FORESTRY CURRICULUM OPTIONS

School of Natural Resources

Now reorganizing (1983) and the courses/curriculum are being finalized. The restructure will not include a B.S. in Forestry. The B.S. will be in Natural Science. The graduate program will include:

M.S. in Forestry
M.S. in Landscape Architecture
M.S. in Natural Resources

The central focus of the Master's program will be in policy, programming and management. It is understood that the BSF will be given at Michigan State University, East Lansing with graduating students transferring to the Ann Arbor campus for graduate work. The new program is scheduled to begin in the fall of 1984.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECON) Economics
(BIOM) Resource Biometrics
(REMS) Remote Sensing (in collaboration with ERIM)
(PATH) Intergrated Pest Management

The reorganization will stress management of resource communication technology in the graduate thesis program by emphasizing individual contribution to group/interdisciplinary problem solving.

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

N/A

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

1. Resource Management and Economic Development held in May-June 1982. An internationally oriented program for policy makers, resource managers, development planners and others who are involved in guiding the use of natural resources in developing nations. The major focus was on economic analysis of the relationships between natural resources and economic growth.

2. Wildland Management Center. Programmatic ties with the Eastern Caribbean Natural Area Management Program (ECNAMP) St. Croix, U.S. Virgin Islands, and the Tropical Agricultural Research and Training Center (CATIE), Turrialba, Costa Rica, directly link the WMC and SNR to field programs in other parts of the Western Hemisphere. The WMC also maintains institutional ties with international agencies and organizations which address natural resource concerns of global importance. Activities of the WMC are often carried out in cooperation with the International Union for Conservation of Nature and Natural Resources (IUCN) and the World Wildlife Fund (WWF).

   The core activities of the WMC are financially supported by the University of Michigan with major grants from the Rockefeller Brothers Fund (RBF), WWF, and IUCN. Other governmental and non-governmental organizations also provide funding for specific WMC projects.

3. International Seminar on National Parks and Equivalent Reserves. The 17th seminar was completed in August 1983. The Seminar is designed for senior administrators, professional personnel, and conservation leaders responsible for the establishment and development of park and wildlife conservation systems and associated tourist programs throughout the world. The first sixteen Seminars were attended by 525 participants from 96 countries.

4. Office of International Resource Studies. Established within the School of Natural Resources to coordinate and foster education, research and service activities related to international resource issues.

B. Formal/informal linkages between the School and foreign institutions:

   See comments on Wildland Management Center above.
   Food and Agricultural Organization

C. Fall, 1982, Faculty statistics for the School of Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 43

2. Number of full time forestry faculty on overseas professional assignment:

   5 : 5-12 weeks abroad in the past 5 years
   4 : 13-26 weeks abroad in the past 5 years
   5 : 27-104 weeks abroad in the past 5 years
   1 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

62	Africa
0	Middle East
145	Asia & Pacific
103	Latin America
0	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	120	Land Use Planning/Assessment
(POLY)	50	Forest Policy
(ECON)	94	Forest Economics
(REMS)	4	Remote Sensing
(BIOL)	3	Forest Biology
(COMM)	64	Conservation, Public Relations
(WLMG)	2	Wildlife Management
(FISH)	83	Fisheries Management
(UTIL)	4	Utilization
(PARK)	12	Forest Recreation
(WASH)	60	Watershed Management

D. The School plans on expanding its international program through improving capability of the Strategic Wildland Management Center.

IV. SUPPORTING RESEARCH AND EDUCATIONAL OPPORTUNITIES

N/A

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. James E. Crowfoot, Dean
School of Natural Resources
University of Michigan
Ann Arbor, MI 48109
Telephone: (313) 763-1312

B. Dr. David F. Hales
Samuel Trask Dana, Professor
Office for International Affairs
University of Michigan
Ann Arbor, MI 48109
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall 1982), School of Natural Resources:

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	358	2
Graduates	155	16
Total	513	18
Total campus student body	35,000	N/A

2) Geographical place of residence for foreign students:

3 Africa
0 Middle East
8 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialiation for foreign students: N/A

C. School setting: Ann Arbor is a small university city adjacent to major urban areas of Detroit and Chicago.

D. Facilities: Camp Filibert Roth: a summer camp in the middle of the U.S. Forest Service Ottawa National Forest and adjacent to state and industrial forests. Available for research: 1,000 acres of forest land adjacent or near the Ann Arbor School for field trips and research; International Resources Studies Center; emphasis with school on integrative studies which stresses natural resources communications technology.

INSTITUTIONAL PROFILE

UNIVERSITY OF MINNESOTA

College of Forestry

St. Paul, Minnesota 55108

UNIVERSITY OF MINNESOTA
St. Paul, Minnesota

I. FORESTRY CURRICULUM OPTIONS

College of Forestry

A. Undergraduate

1. Bachelor of Science/Forest Resources:
Emphasis in silviculture, forest management, administration, measurement and information systems, quantitative forest management, hydrology, remote sensing, forest soils, and wood utilization. A student may also submit a proposal for an individual area of specialization, including an explanation of its professional relevance and the courses to be completed, to the faculty for their review and approval.

2. Bachelor of Science/Forest Products:
Development, production, marketing, and utilization of products which flow from forests. Courses emphasize the chemical, physical, and mechanical properties of wood and the technologies for converting this raw material into its many final forms.

   a. Marketing--For students interested in the sales, distribution, and market development of forest products. The technical emphasis is on the physical-mechanical nature of wood-based building materials. In addition, course work focusses on marketing principles and analysis, management science, computer applications, and economics.

   b. Production Management--For students interested in production management careers in industries that manufacture lumber, plywood, particleboard, furniture, and other wood products. Students gain knowledge in industrial engineering, labor management, and economics.

   c. Wood Science and Technology--Designed for students who want broad and in-depth education in forest products. It provides a strong background in mathematics, the biological and physical sciences, the fundamental properties of wood, and the technology of wood products manufacturing.

   d. Pulp and Paper--Provides in-depth training in mathematics, physics, chemistry, and wood science and technology. It also includes specialized pulp and paper and related engineering courses on the technology of wood pulp production and the manufacture of paper and other fiber products.

3. Bachelor of Science/Forest Science:
This curriculum gives students a more in-depth basic science background and more opportunity for individuality in course selection. It is in preparation for graduate study in forestry research, teaching, or related fields.

4. Bachelor of Science/Urban Forestry:
Urban forestry involves planning and managing vegetation and associated natural resources in and near urban communities, along streets and in parks, greenbelts, and open spaces. Urban foresters help communities plan and design their urban forests, supervise tree selction and planting, design insect and disease protection programs, and provide related services.

5. Bachelor of Science/Recreation Resource Management:
The comprehensive planning and management of land and water for recreation, with emphasis on natural non-urban areas; for participation in government resource-oriented recreation programs as well as private planning and consulting; and for graduate work in resource planning and management. The traditional core courses usually required for federal forester positions are not included.

6. Bachelor of Science/Fisheries or Wildlife Management:
Offers basic science and nonscience training for the broad academic background necessary in these professional fields. The graduate is essentially a field ecologist qualified to conduct or assist in biological studies and/or management programs of fisheries or wildlife and their habitats.

Itasca Session--Forest Resources, Forest Science, and Urban Forestry majors are required to complete a 3 1/2-week summer term between their freshman and sophomore, or sophomore and junior years.

Cloquet Session--Students in Forest Resources and in the natural science specialization of Forest Science are required to complete the Cloquet Forestry Session in the fall of their senior year.

B. Postgraduate

1. Master of Science:
2. Master of Forestry:
3. Doctor of Philosophy:

Within the graduate major of forestry, emphasis is in one of the following subfields: Ecology and Silviculture; Forest Economics, Policy and Administration; Genetics and Forest Improvement; Hydrology; Measurements and Biometrics; Tree Physiology; Recreation Land Management; Remote Sensing; Wood and Wood Fiber Science; Forest Products Marketing; and Forest Products Production and Technology.

II. AREAS OF ACADEMIC CONCENTRATION

(ECON) Forest Economics
(MGMT) Quantitative Forest Management
(BIOM) Forest Biometrics
(REMS) Remote Sensing
(WASH) Hydrology (Watershed Management)
(PHYS) Tree Stress Physiology
(UTIL) Technology of Composite Panel Products Wood Moisture Relations
(CHEM) Surface and Linguin Chemistry
(PATH) Forest Pathology, Forest Products Pathology
(FISH) Fisheries
(WLMG) Wildlife Management

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Graduate students are eligible to be considered for employment as research or teaching graduate assistants in the programs conducted through the College of Forestry. Availability of funding and qualifications for open assistantships are factors considered when evauluating those seeking assistantships. At the undergraduate level, there are limited coop-educational program opportunities.

Opportunities exist for qualified individuals to have a joint program for the masters degree in planning through the Hubert Humphrey Institute of Public Affairs while doing advanced degree work in forestry.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

Efforts are made to include international aspects of forestry in individual courses as appropriate subject matter.

B. Formal/informal linkages between the School and foreign institutions:

1. UM/Univ. of Freiburg/West Germany: Graduate student summer work exchange program.
2. UM/USAID/Morocco: To develop graduate education and research programs in the soil and plant sciences at the Institute Hasan II.
3. Cooperative efforts with the Swedish Royal College of Forestry are being explored.
4. UM/USAID/Morocco: Institutions building for research and graduate education with the Institut Agronomique. Basically agriculture but has involved faculty from selected programs in forestry.
5. UM/University of West Indies/Trinidad and Tunisia (funded through MUCIA. Several faculty were on short term adversery trips to forestry schools in Indonesia.)
6. UM/Institut National Agronom/Tunisia
7. UM/University of Damascus/Syria
8. UM/Suez Canal University/Egypt

9. Tamil Nadu University/India
10. UM/College of Agriculture-MO/Uruguay
11. UM/INIA/Mexico
12. UM/University of Malaysia-PE/Malaysia
13. UM/University of Tunis/Tunisia

Strong linkages through the Agricultural Development Council to institutions in south and southeast Asia. Strong ties with international agricultural research centers, particularly Irri, Cimmyt, Iata, Icrisat, Ciat and Icarda. Strong ties to European universities in England, France, Austria, Germany and The Netherlands.

C. Fall, 1983, Faculty statistics for College of Forestry

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 45

2. Number of full time forestry faculty on overseas professional assignment:

   10 : 5 to 12 weeks abroad in the past 5 years
   2 : 13 to 26 weeks abroad in the past 5 years
   2 : 27 to 104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   22 Africa
   0 Middle East
   52 Asia & Pacific
   65 Latin America
   98 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (LAUS) 3 Land Use Assessment/Planning
   (POLY) 16 Forest Policy
   (ECON) 75 Forest Economics
   (MGMT) 35 Forest Management
   (MENS) 3 Mensuration
   (BIOM) 3 Biometrics
   (REMS) 8 Remote Sensing
   (BIOL) 2 Forest Biology
   (ECOL) 2 Forest Ecology
   (SILV) 9 Silviculture
   (PATH) 10 Forest Pathology
   (NURS) 2 Nursery, Seed Handling
   (WASH) 18 Watershed Management
   (UTIL) 17 Utilization
   (PARK) 15 Forest Recreation
   (EDUC) 11 Forestry Education & Research Administration
   (WLMG) 8 Wildlife Management

D. The School intends to expand its international forestry program through:

1. Establishment of a center to study multi-disciplinary problems in resource policy and management. This likely will emphasize watershed management and economics, but will inlcude other fields as well.

2. The College of Forestry has joined the Universities for International Forestry (UNIFOR) consortium. This will increase the college's participation in international teaching, research, and development projects.

3. The College of Forestry is a participant on a proposal for watershed assistance in the Dominican Republic, which is a USAID sponsored project.

V. PROGRAM ASSOCIATIONS

1. Title XII: strengthening grant money. The College of Forestry has received some funding for testing low altitude aerial photo techniques to LDC agricultural needs.

2. Through the Midwest Universities Consortium for International Activities (MUCIA) and the Universities for International Forestry (UNIFOR), the College has access to joint participation in international forestry activities.

3. Several of our faculty have been involved with a 'Man in the Biosphere' project on tropical forestry with particular focus on watersheds. This has involved training sessions in the Philippines, Malaysia, etc., in which Arizona State has been the lead institution.

VI. CONTACTS:

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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall 1983) College of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	392	7
Graduates	93	17
Total	485	24
Total campus student body	46,045	2,356

2) Geographical place of residence for foreign students:

10 Africa
2 Middle East
9 Asia & Pacific
2 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students:

(POLY) 1 Forest Policy
(ECON) 4 Forest Economics
(REMS) 1 Remote Sensing
(WASH) 1 Watershed Management
(UTIL) 7 Wood Utilization
(TRIM) 1 Forest Genetics
(SILV) 2 Silviculture

C. School setting: this area has a mix of agricultural and forest landscape, flat to gently rolling, with many lakes and rivers.

D. Facilities: the Forest Products Department, which has laboratories for teaching and research in such area as wood products manufacturing, wood chemistry, mechanical testing, biodeterioration, and wood drying. Also on the St. Paul campus, is the regional headquarters of the North Central Forest Experiment Station of the U.S. Forest Service.

The College of Forestry uses several field centers for its programs: The University's Forestry and Biological Station is located in north central Minnesota. The station offers housing, dining, library, and laboratory facilities.

The college's Forestry Center includes more than 3,700 acres of virgin and second-growth timber in a major forest products manufacturing area of northeastern Minnesota. It provides important education, research and demonstration opportunities in forest resources. Also, a 300-acre forest, about 10 miles from the St. Paul campus, is available for field laboratory work throughout the year.

INSTITUTIONAL PROFILE

MISSISSIPPI STATE UNIVERSITY

School of Forest Resources

Mississippi State, Mississippi 39762

MISSISSIPPI STATE UNIVERSITY
Mississippi State, Mississippi

I. FORESTRY PROGRAM OPTIONS

Division of Agriculture, Forestry and Veterinary Medicine
School of Forest Resources

A. Undergraduate

Department of Forestry

1. Bachelor of Science/Forestry:

   The major offers two options:

   a. The Forest Management Option. Students may choose electives to meet their personal objectives, such as, graduate study in forestry or other related sciences, a concentration in business, forest recreation, or any of several other relevant areas. A program of study leading to double degree in forestry and business is available.

   b. The Wildlife Management Option. Provides basic forestry training necessary in multiple use management of forest lands and prepares the student for graduate work in the wildlife ecology area.

Department of Wood Science and Technology

2. Bachelor of Science/Wood Science & Technology:
   Extensive training in the major wood processing operations, i.e., drying, machining, gluing, finishing, treating, pulping and chemical modification. Depending upon their career interests, students supplement their knowledge of wood as a material by a selection of additional courses within a specified area. Examples of areas are engineering, business administration, personnel relations, economics, and chemistry. Three concentrations are available to students: Forest Products Industries-for those interested in sales and marketing, management, manufacturing, or technical services. Wood Science-for those wishing to pursue careers in research or to continue their education at the graduate level. And Wood Engineering-for those interested in production systems or processing engineering, industrial research, manufacturing, or product development.

Department of Wildlife & Fisheries

3. Bachelor of Science/Wildlife & Fisheries:
   Prepares students for careers in aquatic ecology, fishery management or aquaculture of lakes, ponds and rivers. By the proper selection of electives the student can minor in Wildlife Management. This major also offers an option in Aquaculture Management which helps prepare the student to cope with the varied problems arising in modern day aquaculture.

B. Postgraduate

Department of Forestry

1. Master of Forestry
2. Master of Science/Forestry
3. Doctor of Philosophy: Forest Resources

Specialized areas of study include forest business, forest management and economics, forest genetics, forest soils, silviculture, forest biometrics, forest photogrammetry and remote sensing, forest tree and seed physiology, and forest harvesting and operations.

Department of Wood Science & Technology

1. Master of Science/Wood Science & Technology:
2. Doctor of Philosophy/Forest Resources Emphasis on Wood Science & Technology:

A knowledge of the chemical, physical, botanical, and engineering sciences and how they impinge on wood. Major areas of study include wood-fluid relations, wood protection, products pathology, wood chemistry, wood anatomy, and wood processing operations.

Department of Wildlife & Fisheries

1. Master of Science/Wildlife Ecology:
2. Doctor of Philosophy/Fisheries or Wildlife;

Emphasis in wildlife or fishery management.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(SOIL) Forest Soils
(BIOM) Forest Biometrics
(REMS) Photogrammetry/Remote Sensing
(HARV) Harvesting
(TRIM) Forest Genetics
(MGMT) Forest Management
(ECIB) Forest Economics
(SILV) Silviculture
(PROD) Forest Products Technology.

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Research is conducted in the Mississippi Agricultural and Forestry Experiment Station by the Department of Forestry and the Department of Wildlife and Fisheries, and in the Mississippi Forest Products Utilization Laboratory by the Department of Wood Science and Technology. Professors are employed jointly as teachers and research scientists. There is opportunity for students to gain experience by working part-time as research assistants. Forestry-related research is also carried on in other departments of the University, and there are cooperative research arrangements with federal agencies, notably, the Southern Forest Experiment Station of the U.S. Forest Service, which operates research programs with headquarters at four locations in Mississippi, including the Forestry Sciences Laboratory, the Forest Fire Prevention Research Program and the Hardwood Genetics Research Project at Mississippi State University. Wildlife and Fisheries research is also conducted by a Cooperative Unit of the U.S. Fish and Wildlife Service.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. MSU/USAID/Government of Kenya:
   Range management, forest management, education and curriculum development. Long term; 3+years.
2. MSU/SECID/Kenya: Range management and forest management education and curriculum development. 3 years.
3. MSU/Thailand

C. Fall, 1982, Faculty statistics for College of Environmental Science and Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 41

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 13 to 26 weeks abroad in the last 5 years
   1 : 27 to 48 weeks abroad in the last 5 years
   4 : 104+ weeks abroad in the last 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   150 Africa
   0 Middle East
   3 Asia & Pacific
   1 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(RAMG)	104	Range Management
(ENGR)	2	Forest Engineering
(UTIL)	27	Utilization
(ECON)	52	Forest Economics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

D. The School of Forest Resources will participate in international programs through SECID (Southeast Consortium for International Development) and other organizations on an individual case basis as opportunities arise and as internal resources permit consistent with the orderly operation and development of the internal program.

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forest Resources

1) Number of students enrolled	U.S.	Foreign
Undergraduates	221	4
Graduates	57	5
Total	279	9
Total campus student body	11,854	471

2) Geographical place of residence for foreign students:

2 Africa
0 Middle East
4 Asia & Pacific
3 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(REMS) 1 Photogrammetry
(FISH) 2 Fisheries Management
(ENGR) 1 Forest Engineering
(UTIL) 1 Utilization

C. School setting: the University adjoins the city of Starkville, the grounds of the campus comprise about 4,200 acres, including farms, pastures and woodlands of the experiment station.

D. Facilities: the classrooms and many of the laboratories and offices of the School of Forest Resources are located on the main floor of the Clarence Dorman Forestry-Plant Sciences Building. Other laboratories and offices are in the Forest Products Utilization Laboratory, Forest Resources Laboratory and the Fisheries Laboratory. The facilities used for research - instruments, apparatus, literature, experimental forests, greenhouses and fish ponds - are also valuable in the teaching program. Forest of 8,000 acres is conveniently close to the campus, intensively managed, and regularly used for demonstration as well as research.

INSTITUTIONAL PROFILE

UNIVERSITY OF MISSOURI - COLUMBIA

School of Forestry, Fisheries and Wildlife

Columbia, Missouri 65211

UNIVERSITY OF MISSOURI
Columbia, Missouri

I. FORESTRY CURRICULUM OPTIONS

School of Forestry, Fisheries and Wildlife

A. Undergraduate

1. Bachelor of Science/Forest Management:
Designed to equip the student for varied types of land management work in forestry. Courses relating to the multiple-use aspects of forestry - timber, recreation, wildlife, water and range - and to forest administration, forest biology, forest measurements and engineering, and forestry as affected by human institutions.

2. Bachelor of Science/Wood Products:
Directed toward research or teaching, wood manufacturing or product sales, and managing a wood-based enterprise.

   a. The science specialization includes courses in the physical and biological sciences. It emphasizes knowledge of wood's chemical and physical properties.

   b. The utilization specialization includes courses in manufacturing or structural design. It emphasizes engineering as applied to the manufacture and use of wood products.

   c. The management specialization includes courses in industrial organization and control. It emphasizes the decision-making aspects of operating a forest- or wood-based enterprise.

3. Bachelor of Science/Forest Science and Specialization:
Students aiming toward graduate study or who wish to specialize (in forest hydrology, for example) at the undergraduate level should consider enrolling in forest science and specialization.

4. Bachelor of Science/Fisheries and Wildlife:
Designed to provide the essential biological and management background necessary to the student planning entrance into wildlife management or fisheries biology. It may also be selected by students having a concern for the effect of man's environmental modifications upon animal species.

5. Bachelor of Science/Recreational Forestry:
Emphasis upon the amenity and environmental values of forests and tree plantings. Time is devoted to forest biology, but several additional social science courses are included to emphasize the interface between recreationists and the forest resource.

6. In the summer between the sophomore and junior years, students in the forest management, recreational forestry, forest science and specialization curricula attend a field studies session of six weeks at the University Forest.

B. Postgraduate

School of Forestry, Fisheries and Wildlife

1. Master of Science:

Programs in forestry are available in Ecology, Economics, Entomology, Hydrology, Mensuration, Photogrammetry, Physiology, Policy, Recreation, Silviculture, Soils, Timber Management, Wood Science and Wood Technology. The M.S. programs in Fisheries and Wildlife are offered in areas of Ecology, Physiology, Reproduction, Animal Behavior, Limnology and Water Quality, Wildlife Management, Fishery Biology and Management, and Population Dynamics.

2. Doctor of Philosophy:

Programs in forestry are available in Ecology, Economics, Entomology, Hydrology, Physiology, Policy, Recreation, Silviculture, Soils and Wood Science, Fisheries and Wildlife.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(SILV) Silviculture
(ECOL) Wetland, Waterfowl, Forest Ecology
(SOIL) Forest Soils
(WLMG) Upland Game Management
(FISH) Fisheries Management
(HYDR) Water Quality

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Cooperation in Research:

Six research associates at the Forest Service Columbia Forest Research Center work cooperatively with the School of Forestry, Fisheries and Wildlife. Their research is in the fields of range and wildlife habitat and the ecology and culture of oak-hickory forests. These foresters are research associates on the School of Forestry, Fisheries and Wildlife staff are available to graduate students for consultation in research and related matters.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1983, Faculty statisitcs for School of Forestry, Fisheries and Wildlife

1. Number f full time (9-month and 12-month) teaching/research forestry faculty: 28

2. Number of full time forestry faculty on overseas professional assignment:

   3 : 1 to 4 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   1 Africa
   0 Middle East
   4 Asia & Pacific
   2 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (MENS) 2 Mensuration
   (UTIL) 1 Wood Utilization
   (INTL) 4 International Forestry

V. PROGRAM ASSOCIATIONS

1. Title XII: the University of Missouri is requesting a strengthening grant to develop, expand and focus faculty competencies.

2. Midwest International Agricultural Consortium (MIAC): Forestry, Fisheries and Wildlife.

VI. CONTACTS

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C. Graduate Contact:
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) School of Forestry, Fisheries, and Wildlife:

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	288	4
Graduates	20	7
Total	308	11
Total campus student body	24,400	1,400

2) Geographical place of residence for foreign students:

5 Africa
0 Middle East
1 Asia & Pacific
0 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(WLMG) 1 Wildlife Management
(PROD) 4 Wood Science
(PHYS) 1 Physiology

C. School setting: the School is located by the town of Columbia, (population 65,000) halfway between St. Louis and Kansas City. Urbanized rural environment, with temperatures that range from -20 degrees F. to 110 degrees F.

D. Facilities: laboratories for students are available for both fundamental and problem-oriented research in tree physiology, ecology, soils, forest entomology, genetics, hydrology, and wood science. Equipped fishery, wildlife laboratories, limnology laboratory, and aquarium facility. The research laboratories of the Department of Biochemistry and the electron microscope facility are available for research.

The University Library contains 1,750,000 volumes, with current subscriptions to about 25,000 periodicals.

The 7,310 acre University Forest in southeast Missouri, composed chiefly of second-growth upland oak-hickory and limited areas of shortleaf pine, is the site of several research projects, dealing with studies of oak regeneration, forest hydrology, and fire effects. Student housing, a laboratory equipped for certain types of forest biology research, a small greenhouse, watershed evaluation installations, and a sawmill are available.

The Wildlife Area includes 2,500 acres of second growth mixed oak-hickory forest and a 20-acre lake. Some of the open land has been used for plantation, tree improvement, and energy budget studies.

INSTITUTIONAL PROFILE

UNIVERSITY OF MONTANA

School of Forestry

Missoula, Montana 59812

UNIVERSITY OF MONTANA
Missoula, Montana

I. FORESTRY CURRICULUM OPTIONS

School of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry:
   a. Forest Resources Management Area of Emphasis: Resource analysis in making and implementing land management decisions.
   b. Range Resources Management Area of Emphasis: In rangeland vegetation management, ecology, and conservation.

2. Bachelor of Science/Recreation Management:
   a. Recreation Program Services Area of Emphasis: Planning, supervision and administration of recreation programs and activities in public and private parks and recreation areas. Students take a Camping and Outdoor Recreation/Education (CORE) Program in a backcountry camp setting in the spring quarter of the senior year.

   b. Recreation Resources Management Area of Emphasis: To evaluate lands for their aesthetic and recreational management programs.

3. Bachelor of Science/Resource Conservation:
   Designed for individuals to provide an educational foundation in natural resources combining a wide variety of other disciplines.

4. Bachelor of Science/Wildlife Biology
   The School of Forestry cooperates with the Departments of Botany and Zoology in offering a degree program, the undergraduate curriculum constitutes pre-professional training in fish and game conservation, and provides background in general ecology.
   a. Terrestrial Emphasis
   b. Aquatic Emphasis
   c. Spring Camp--sophmore students attend a intergrated set of classes designed to give students field experience.
   d. CORE Program--senior recreation students receive added experience working and dealing with forest experience.

B Postgraduate

1. Master of Forestry
2. Master of Science in Forestry
3. Master of Science in Resource Conservation
4. Master of Science in Recreation Management
5. Master of Resource Administration
6. Doctor of Philosophy

Areas of Emphasis in the Doctorial Degree: Range and Wildlife Habitat Management, Wildlife Management, Applied Ecology, Forest Resource Management, Watershed Hydrology, Fire Ecology and Management, and the social science aspects of resource management.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

1. Emphasis is on interdisciplinary approach to decsion making:

   (SILV) Silviculture
   (SOIL) Forest Soils
   (ECOL) Forest Ecology

2. Emphasis is on interdisciplinary approach to decsion making:

   (ECON) Forest Economics
   (MGMT) Forest Management
   (NARS) Wilderness Management

III. SUPPORTING RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. National Association for Foreign Student Affairs has a program entitled Home Country Employment Registry which strives to match foreign students with jobs in agencies in their home countries.

   Fee waivers are awarded on a competitive basis, usually based on financial need. Short term loans (one-month) are available in case of emergencies.

B. There is a wood chemistry laboratory on campus associated with Champion Paper Company.

C. A small but active range vegetation program.

D. The School of Forestry collaborates with the Schools of Business, Geology, Geography and Law (several students have elected to graduate in both forestry and law).

E. There is a Peace Corps recruiting unit located in the School of Forestry.

F. The School of Forestry is developing a strong program for second growth stand management (small sized growing stock, mechanization and land use mapping/inventory).

G. Montana Forest and Conservation Experiment Station has offices at the School of Forestry.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

The University has a center for international studies involving the exchange of ideas and technologies between undergraduates, graduates and professionals on campus and overseas. Through this pogram linkages are with Calabar University, Nigeria, Peoples Republic of China, Japan, Malaysia and New Zealand.

B. Formal/informal linkages between the School and foreign institutions:

The School of Forestry has had some involvement in Nigeria, South American countries, Sudan, Pakistan and Nepal.

C. Fall, 1982, Faculty statistics for the School of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 24

2. Number of full time forestry faculty of overseas professional assignment:

   1 : 27 to 104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   2 Asia & Pacific
   0 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (MGMT) 1 Forest Management
   (SOIL) 2 Forest Soils
   (PARK) 45 Forest Recreation

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

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Telephone: (406) 243-2311

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	599	1
Graduates	67	1
Total	666	2
Total campus student body	9,100	118

2) Geographical place of residence for foreign students:

2 Africa
0 Middle East
0 Asia & Pacific
0 Latin America
0 Non LDC's

3) Gradute student specialization for foreign students:

(MENS) 1 Mensuration
(WASH) 1 Watershed Management

C. School setting: the University of Montana is located in Missoula, a city of 50,000 in the Northern Rockies. Missoula, headquarters of Region One of the Forest Service, Lolo National Forest, Montana Division of Forestry and regional office of Montana Department of Fish, Wildlife and Parks. The smoke jumper base and Northern Forest Fire Laboratory are nearby.

D. Facilities: a 30,000-acre research area 30 miles east of Missoula in the Garnet Mountains. Wood science and technology classes operate a small portable sawmill and solar dry kiln.

INSTITUTIONAL PROFILE

UNIVERSITY OF NEW HAMPSHIRE

Department of Forest Resources

Durham, New Hampshire 03824

UNIVERSITY OF NEW HAMPSHIRE
Durham, New Hampshire

I. FORESTRY CURRICULUM OPTIONS

Department of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forestry:
   In addition to formal courses, all forestry majors are required to have at least one summer of forestry work experience. Before the junior year, students must choose a single area of concentration from the following options:

   a. Forest Management: Designed for students who intend to develop a career in forest resource management.
   b. Forest Science: Students prepare for specialization in specific forest sciences, primarily as background for entry to graduate study. There are concentrations identified in three areas: biological science, wood science, and quantitative science.

2. Bachelor of Science/Soil Science:
   The study of the physical, chemical, and biological properties of soils, their classification and management in both rural and urban environments, and their essential role in food and fiber production.

3. Bachelor of Science/Wildlife Management:
   For students whose interest is in the understanding, production, management, and utilization of game and other forms of wildlife.

4. Bachelor of Science/Environmental Conservation:
   Concentrations center on a variety of conservation-related areas, such as land-use planning, ecological education, pollution control, and writing about natural resources.

5. Associate in Applied Science/Forest Technology (two year program):
   The forest technology program prepares students to be effective members of scientific and management teams - planning, supervising, and operating various forest enterprises. This degree is administered in the School of Applied Sciences.

B. Postgraduate

1. Master of Science/Resources, options in:

a. Forest Resources: Forest Resource Management; Forest Marketing; Wood Industry Management; Forest Mensuration; Forest Tree Improvement; and Wood Science /Technology.
b. Soil Science: Soil Chemistry; Soil Classification /Genesis; Soil Microbiology; and Forest Soils.
c. Wildlife Ecology: Habitat Evaluation and Management; Wildlife Nutrition and Physiology; and Land-Use Planning for Wildlife.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(TRIM) Genetics/Silviculture
(MGMT) Management (small woodlots and analysis)
(SOIL) Soils
(PROD) Wood Technology and Marketing

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

The Department participates in doctoral degree programs on a cooperative basis with other departments in the University. The Department of Chemistry offers a soil and water chemistry option in its Ph.D. program, which is coordinated through joint efforts of the soils and hydrology faculties and the chemistry faculty. A Ph.D. program in genetics is available to students in forest resources through the Genetics Program.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

1. The Department is considering sponsoring a workshop on acid rain (1984-85) primarily oriented to Europe.

2. Faculty member participation in Canadian and U.S. relations.

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1982, Faculty statistics for the Department of Forest Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 16

2. Number of full time forestry faculty on overseas professional assignment (in aggregated person weeks):

   2 : 5 to 12 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   0 Asia & Pacific
   0 Latin America
   - Non LDC's: Experience in Northern Europe and Scandinavia

4. Type of overseas technical (specialization) assignments (in aggregated person weeks): N/A

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : German

V. PROGRAM ASSOCIATIONS

The University offers a second major in International Perspectives. This course, mainly for U.S. students, requires language proficiency and a one year overseas study internship with industry.

VI. CONTACTS

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B. Dr. James Morrison, International Program Coordinator
   Director of Research
   Department of Forest Resources
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forest Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	283	0
Graduates	40	2
Total	323	2
Total campus student body	10,500	150

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
0 Asia & Pacific
0 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students: N/A

C. School setting: the home of the University is Durham, near the seacoast of New Hampshire. The campus, 188 acres in size, is surrounded by 3,000 acres of fields, farms and woodland. Other facilities include sixty buildings for teaching and thirty residence halls for students.

D. Facilities: research and teaching labs are available for research in soils, genetics, wood technology, and wildlife. 3,200 acres of woodlands are available for teaching and research. Sawmill and logging operations are part of the school activities available to students.

INSTITUTIONAL PROFILE

STATE UNIVERSITY OF NEW YORK

College of Environmental Science and Forestry

Syracuse, New York 13210

STATE UNIVERSITY OF NEW YORK
Syracuse, New York

I. FORESTRY CURRICULUM OPTIONS

College of Environmental Science and Forestry

The College of Environmental Science and Forestry is an upper division/graduate center enrolling at the undergraduate level transfer students who have completed at least two years of university-level coursework.

A. Undergraduate

The School of Forestry

1. Bachelor of Science/Resource Management:
Planning, manipulation, and long-term use for sustained production of timber, forage, water, wildlife and recreation. Attendance at a five-week, summer session in field forestry is required prior to registration for the junior year.

   a. Program of Forest Technology (two year curriculum)

      Associate of Applied Science in Forest Technology (A.A.S.)
      Field practices of forestry as related to forest managerial needs, the ability to work and communicate effectively with forestry personnel.

The School of Biology, Chemistry and Ecology

2. Bachelor of Science/Environmental and Forest Biology:
Basic biology in forest ecosystem dynamics and environmental science, integrating of coursework and research concerned with natural resource management and environmental quality.

3. Bachelor of Science/Chemistry:
Provides options in the chemistry of natural products, biochemistry, wood and polymer/environmental chemistry.

The School of Environmental and Resource Engineering

4. Bachelor of Science/Forest Engineering:
Apply engineering principles and biological knowledge, includes locating and quantifying resources; designing harvesting systems and transportation networks for water and timber; and designing structures, and pollution abatement facilities.

5. Bachelor of Science/Paper Science and Engineering:
Provides education in the physical sciences and chemical engineering, with specific emphasis on the manufacture of pulp and paper.

6. Bachelor of Science/Wood Products Engineering:
   To promote efficient wood processing, product design, with emphasis on the application of science and engineering principles. Options in building construction or forest products, marketing, production systems engineering or wood science.

School of Landscape Architecture

7. Bachelor of Science/Environmental Studies:
   Bachelor of Science/Landscape Architecture (5 year program):

   Integrates condition and form of the natural environment with relationship to the human environment; including basic landscape design and manipulation, applied ecology, urban and regional land use policy, planning and communications.

B. Postgraduate

School of Forestry

1. Master of Science/Resource Management and Policy Program, specialization in:

   a) Forest Management: Planning and implementation processes necessary to achieve integrated use of the forests.

   b) Policy and Administration: Planning, budgeting, programming, and operating levels of public agencies and businesses.

   c) Forest Economics: Emphasis in liberal arts, engineering or business to become familiar with recourse economics, management and policy.

   d) Recreation Management: Studies in the social and political sciences and development of analytical capabilities needed to implement plans and programs.

   e) Silvics: Cultural treatment of forest vegetation by (1) studying and defining interrelationships within forest ecosystems and (2) cataloging general intraspecific characteristics of tree species.

   f) Silviculture: specialization aimed at preparing to understand and evaluate forest ecosystems in whatever depth may be required, and to prescribe treatments or further experimentation to attain management objectives.

   g) Forest Soil Science: Soil moisture, soil temperature, and nutrient element status interrelationships of ecosystems to quantify nutrient element balances and cycling; amelioration of soils for increased productivity; and the impact of various land-use practices on soil productivity.

h) Tree Improvement: Program to develop populations of trees that are well-adapted, rapid growing, and disease-free.

i) Forest Influences: Includes all the effects resulting from the presence of forest trees and associated vegetation on the hydrologic cycle, climate, erosion, floods, and soil productivity.

Included among the principal studies in this area are energy exchange between forest and atmosphere; moderation of urban environments by vegetation; soil and slope stability; and watershed hydrology, including snow.

j) Urban Forestry: Research and study of soils, greenspace ecology, atmospheric science, tree improvement, forest resource inventory and evaluation, and resource economics and planning. There is strong interaction with other urban-related areas of study within the College, including remote sensing, botany, pathology, entomology, wildlife ecology, and landscape architecture.

k) Quantitative Methods: To develop mathematical and statistical problem solutions and equip students to act as biomatricians or mensurationists.

The School of Biology, Chemistry and Ecology

1. Master of Science:
2. Doctor of Philosophy:

Organized into thirteen interdependent study concentrations: Ecology; Entomology; Environmental Physiology; Fish and Wildlife Biology and Mangement; Pathology and Mycology Plant Science; 'Soil Ecology; Zoology; Chemical Ecology; Biochemistry; Polymer Chemistry; and Environmental Chemistry.

The School of Environmental and Resource Engineering

Specialized areas include: Wood Science and Technology; Composite Materials and Wood Treatments; Design of Timber Structures; Topical Timbers; Anatomy and Ultrastructure; Pulp and Paper Technology; Fiber and Paper Mechanics; Chemistry of Pulping and Bleaching; Colloid Chemistry and Fiber Flocculation; Chemical Process Engineering; Pollution Abatement Engineering; Forest Engineering; Water Resources Engineering; Transportation and Soils; Energy and Environmental Quality; Remote Sensing and Photogrammetry.

The School of Landscape Architecture

1. Master in Landscape Architecture:

   The three-year course of study provides a strong foundation of design theory and process while emphasizing mastery of the skills associated with an individually selected area of concentration. The core curricula focus on processes of community design and planning. Students are required to integrate the core coursework with an elected area of concentration. Accredited by the American Society of Landscape Architects.

The Graduate Program in Environmental Science

1. Master of Science
2. Doctor of Philolosphy:

   Trans-disciplinary program and research for effective resource use, resource conservation, environmental enhancement and protection. There are six areas of concentration: Energy, Land Use, Water Resources, Urban Ecosystems, Waste Management, and Environmental Communication.

II. AREAS OF ACADEMIC CONCENTRATON IN FORESTRY

(ECOL) Plant and Animal Ecology
(IDEN) Tropical Wood Anatomy and Identification
(CLMG) Costal Zone Management
(MGMT) Forest Administration, Management, and Policy
(SILV) Silviculture, Forest Influences
(LAUS) Land Use Planning
(REMS) Remote Sensing
(BIOM) Biometrics
(PARK) Recreation Management
(LSAR) Landscape Architecture
(SOIL) Forest Soils
(CHEM)(ECOL) Chemical Ecology
(PULP)(ENGR) Pulp and Paper Engineering
(UTIL) Wood Ultrastructure
(ENVT) Environmental Studies
(URBN) Urban Forestry
(INTL) International Forestry

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITES

The U.S. Forest Service Northeastern Forest Experiment Station maintains a permanent staff of scientists in their Urban Forest Research Project on campus who are engaged in studies dealing with the planning and management of urban forest ecosystems.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

Graduate education in international forestry is designed to assist individuals who are intent upon pursuing internationally-oriented careers in forestry and related fields.

At the master's level, program emphasis is on the attainment of general competence in research methods, foreign languages, cultural anthropology, world geography, and international affairs, plus a broad understanding of the world forestry situation. At the doctorial level, program concentration is on a specialized discipline area such as forestry economics, forest policy and administration, forest management, or silviculture. Orientation to the world forestry field is achieved in part through the selection of formal coursework, and in part through providing an opportunity for the student to conduct his thesis research in residence abroad.

Opportunity for field training and research in tropical forestry and related fields is available to qualified candidates, especially at the doctoral level, under cooperative agreements maintained by the College with the Institute of Tropical Forestry in Puerto Rico and the University of the Andes, Merida, Venezuela.

B. Formal/informal linkages between the School and foreign institutions:

1. Since 1978 SUNY-ESF has been assisting the Government of Burma, under FAO/UNDP sponsorship, in the establishing of a Forest Research Institute at Yezin. This project is currently in a second phase scheduled for continuation to 1986.

2. From 1957 to 1965 SUNY-ESF assisted USAID in the rehabilitation and modernization of the College of Forestry at the University of the Philippines-Los Banos (UP-LB). Since then some 3 to 5 Philippine faculty, staff and students have been in residence at SUNY-ESF each year pursuing graduate degrees at the MS and Ph.D. levels.

3. An agreement between SUNY-ESF and the University of the Andes-Merida, Venezuela has been in effect since 1965 which provides for an exchange of faculty and students to promote education and research in tropical forestry and related fields.

4. Agreements between SUNY-ESF and the University of Genoa-Italy and the Natonal Park Service-Greece provide opportunities for exchange of personnel and the conduct of research on topics of mutual interest.

C. Fall, 1982, Faculty statistics for College of Environmental Science and Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 106

2. Number of full time forestry faculty on overseas professional assignment:

   22 : 5 to 12 weeks abroad in the past 5 years
   14 : 13 to 26 weeks abroad in the past 5 years
   4 : 27 to 104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   25 Africa
   20 Middle East
   93 Asia & Pacific
   80 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	57	Land Use Assesment/Planning
(SOCL)	2	Sociology/Land Tenure
(POLY)	2	Forest Policy
(ECON)	30	Forest Economics
(MGMT)	6	Forest Management
(BIOM)	13	Biometrics/Data Processing
(MENS)	12	Mensuration/Inventory
(REMS)	2	Photogrammetry/Remote Sensing
(MAPP)	1	Mapping
(SILV)	25	Silviculture
(ECOL)	25	Forest Ecology
(BIOL)	20	Forest Biology
(SOIL)	18	Forest Soils
(ENTO)	20	Forest Entomology
(PATH)	21	Forest Pathology
(FIRE)	2	Fire Management
(NURS)	10	Nursery/Seed Handling
(WASH)	6	Watershed Management
(HYDR)	6	Hydrology
(COMM)	30	Public Relations/Communications
(WLMG)	26	Wildlife Management
(FISH)	6	Fisheries Management
(RAMG)	2	Range Management
(ENGR)	5	Forest Engineering
(HARV)	5	Forest Harvesting
(UTIL)	104	Wood Utilization
(PARK)	10	Recreation/National Parks
(URBN)	20	Urban Forestry
(AGRO)	8	Agro Forestry

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   8 : Spanish, Greek, French, German, Russian

V. PROGRAM ASSOCIATIONS

A. Consortium for Environmental Forestry: an organization of scientists and graduate students studying a wide range of problems in Urban Forestry.

B. UNIFOR: (Universities for International Forestry): a consortium of eight American Universities joined for the purpose of providing professional consultative and educational services in forestry and related sciences for human benefit in the developing countries of the world.

Projects conducted by SUNY-ESF:

1. Funding agency FAO/UNDP: establish National Forest Research Institute, Burma, 1978-82.
2. Funding agency FAO/SIDA: forestry development planning seminar for Latin America, Ecuador, 1975.
3. Funding agency FAO: analysis and evaluation of Costa Rican forest economy, Costa Rica, 1974.
4. Funding agency IPC: feasibility study for conversion of tropical timbers, French Guiana, 1976.
5. Funding agency U.S. Peace Corps: nursery and plantation development, Ecuador, 1980.
6. Funding agency FAO: project analysis of forestry for local community development, Paraguay, 1979.
7. Funding agency USAID/FSP: development of forestry education in Honduras, 1983.

VI. CONTACTS

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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) College of Environmental Science and Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	985	5
Graduates	346	73
Total	1,331	78
Total campus student body	1,566	83

2) Geographical place of residence for foreign students:

15 Africa
4 Middle East
31 Asia & Pacific
10 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(LAUS)	9	Land Use Planning
(POLY)	3	Forest Policy, Administration, History, Sociology
(ECON)	5	Forest Economics
(MGMT)	1	Forest Management
(MENS)	3	Mensuration, Biometrics, Inventory
(REMS)	1	Photogrammetry, Remote Snesing, Cartography, Mapping
(BIOL)	3	Silvics, Forest Ecology, Forest Biology
(SOIL)	4	Forest Soils
(SILV)	8	Silviculture
(ENTO)	3	Forest Entomology
(PATH)	2	Forest Pathology
(COMM)	1	Conservation, Extension, Public Relations
(WLMG)	1	Wildlife Management
(ENGR)	3	Forest Engineering, Harvesting
(UTIL)	16	Wood Utilization, Wood and Paper Technology, Wood Science
(PARK)	2	Forest Recreation
(URBN)	2	Urban Forestry (landscape architecture)

C. School setting: the College is located at one of several hills that overlook Syracuse, a metropolitan area of 500,000 (5 hours driving time from N.Y.C. or Boston).

D. Facilities: the College operates a multiple campus system composed of 186 buildings and 25,000 acres of land. The main Syracuse campus houses the Institute of Environmental Program Affairs, the Empire State Paper Research Institute, the Polymer Research Institute, a cooperative research unit of the USDA Forest Service, the Ultrastructure Center, the Renewable Materials Institute, and the Tropical Timber Information Center.

INSTITUTIONAL PROFILE

DUKE UNIVERSITY

School of Forestry and Environmental Studies

Durham, North Carolina 27706

DUKE UNIVERSITY
Durham, North Carolina

I. FORESTRY CURRICULUM OPTIONS

A. Postgraduate

School of Forestry and Environmental Studies

1. Master of Forestry:

   a. Forest Management Science: Management of forest resources with quantitative methods of business management, planning and administration.
   b. Forest Productivity: Integrates the biological and physical principles that govern the growth of forests with economics, systems science, and methods of quantitative analysis to formulate silvicultural prescriptions.

2. Master of Environmental Management:

   a. Resource Ecology: focuses on the application of ecological theory to the management of terrestrial and aquatic ecosystems. Areas of emphasis include forest ecology, wetlands ecology, quantitative ecology, and ecotoxicology.
   b. Water and Air Resources: Emphasizes the management of these resources and their interaction with other land-related resources. Courses cover basic hydrologic and atmospheric processes, methods of quantitative analysis, and resource management.
   c. Resource Economics and Policy: Teaches the conceptual and applied methods for analyzing natural resource and environmental policies and for assessing potential outcomes of public actions.

3. Each program can be used as a foundation for obtaining the A.M., M.S. and Ph.D. degrees.

B. Department of Forestry and Environmental Studies of the Graduate School

1. Master of Science:
2. Master of Arts:
3. Doctor of Philosophy:

The Graduate School degrees are appropriate for the student who wishes to concentrate on a particular area of resource science or policy, with less emphasis on resource management. These degrees can be structured to include work in professional areas, but a substantial concentration in a specific area of science, systems analysis, or policy is a normal part of a graduate degree.

C. Integrated Toxicology Program

1. Doctor of Philosophy:

The Integrated Toxicology Program operates to provide three training tracks: 1) general toxicology, with broad training in the principles and concepts of toxicology; 2) specialized toxicology, emphasizing such areas as pulmonary toxicology or biochemical toxicology; and 3) ecotoxicology.

D. Integrated Case Studies in Natural Resource Analysis:

The case study approach to graduate education affords the student an opportunity to develop analytical and management skills through a close look at problems in resource management and policy. The technique involves a team of students and professionals with a multidisciplinary outlook.

E. Concurrent Degree Programs

1. Master of Business Administration:

The techniques of management science applied in the management of natural resources, and in the analysis of environmental problems. Three years of study are required to earn the combined degrees of Master of Forestry/Master of Business Administration or Master of Environmental Management/Master of Business Administration.

2. Master of Arts in Policy Sciences:

This degree provides training in the politics and economics of resource and environmental policy making. Emphasis is placed on understanding the social and political forces involved, developing facility with quantitative and logical methods of forecasting, and evaluating policy consequences.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(MGMT) Forest Management
(HYDR) Water and Air Resources
(POLY) Resource Policy
(ECON) Resource Economics
(ECOL) Resource Ecology
(ECON) Resource Investment Analysis
(PROD) Forest Productivity
(METR) Forest Meteorology

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. The Center for Resource and Environmental Policy Research is committed to objective and timely analysis of critical natural resource and environmental issues. Emphasis is given to land, forest, water, air and energy resources.

B. Candidates for professional degree may arrange an internship of three to six months duration. The internship must contribute substantially to the educational objectives of the student. With approval, students may use a part of all of the intern experience to fulfill the master's project requirement.

C. Research Triangle Park. Numerous industrial and governmental organizations have established research facilities in the Research Triangle Park. Government facilities include the National Environmental Research Center of the Environmental Protection Agency, the Forestry Sciences Laboratory of the United States Forest Service Southeastern Forest Experiment Station, and the National Institute of Environmental Health Sciences of the Department of Health, Education and Welfare. These laboratories provide opportunities for student research and internships.

D. Neighboring Universities. Through a reciprocal agreement, Duke students may supplement their education in forestry and environmental studies by taking courses in related fields at the University of North Carolina in Chapel Hill, North Carolina State University in Raleigh, and North Carolina Central University in Durham.

E. The Senior Professional Program is intended to provide working professionals with an opportunity to come to Duke University either to update managerial skills or to earn a professional master's degree with a minimum period of residence. The program offers symposia, managerial seminars, intensive courses, and regular University courses for qualified professionals.

F. Integrated Case Studies in Natural Resource Analysis: Involvement of students in natural resource analysis.

G. Peace Corps. On-campus Peace Corps recruiter for this region of North Carolina. This position requires that a student be a former Peace Corps Volunteer and pays for 10-20 hours of work per week.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTITIVIES

A. Programs/courses taught in international forestry:

The School of Forestry and Environmental Studies contributes to international education and research. The School has developed professional associations and curriculum options for students who wish to combine international interests with study of natural resources and the environment.

B. Formal/informal linkages between the School and foreign institutions:

Current work at the school includes resource conservation and development projects in Nepal and study of tropical forests in Latin America.

C. Fall, 1983, Faculty statistics for the School of Forestry and Environmental Sciences:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 13

2. Number of full time forestry faculty on overseas professional assignment:

   (2 adjunct faculty members)

3. Forestry faculty by geographical place of assignment (in aggregated person weeks): N/A

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   Forest Management Training and Administration, Range and Pasture Management (aggregated weeks N/A)

5. The School plans to expand the international aspects of its forestry program through:

   1. International Trade: planning stage for short course of study center.
   2. The School Dean has visited college level forestry programs in Japan and China in the hopes of future student and faculty exchange with both countries.
   3. International recruiting: A move to recruit more foreign students, especially students in developing countries who are interested in forest management science. Current students being from West Germany, Nepal, Taiwan, Australia, Madagascar, Liberia, and Venezuela.

V. PROGRAM ASSOCIATONS:

A. SECID: Southeast Consortium for International Development: Organization of 33 institutions which provides technical services, training and procurement services.

B. OTS: Organization for Tropical Studies, provides means for students to study tropical forestry with extensive field work (8-week course) in Costa Rica. In many cases the students enter the Botany program, but for those students specifically interested in forestry, they enter the program and take courses in the Botany Department.

C. SASA (South Atlantic States Association): Asia and African Studies.

D. Duke University Center for International Studies: Students and faculty participate in seminars and other educational offerings of the center.

E. The Delta Group: Support for graduate women seeking assignments in technical development programs, an annual series of educational programs focusing on technical projects in Asia, Africa and Latin America, assistance in locating opportunities for technical internships and longer term assignments, aid in formulating individual or team proposals to development agencies and international organizations, and a network with other Women in Development programs.

VI. CONTACTS:

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Duke University
Durham, NC 27706
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VII. ADDITIONAL INFORMATION:

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983), School of Forestry and Environmental Studies

1) Number of students enrolled	U.S.	Foreign
Undergraduates	0	0
Graduates	145	8
Total	145	8
Total campus student body	9,134	347

2) Geographical place of residence for foreign students:

2 Africa
0 Middle East
4 Asia & Pacific
1 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students:

(MGMT) 3 Forest Management
(ECOL) 2 Forest Ecology
(BIOL) 2 Forest Biology

C. School setting: Duke University is situated on the outskirts of Durham, (pop. 100,000) in the central piedmont region of North Carolina. The Appalachian escarpment lies approximately 100 miles to the west of Durham and the coastal plain is but a short distance to the east.

The Piedmont region is characterized by a rolling, forested topography interspersed with small farms and rural communities. The climax forests of the piedmont are hardwoods, native southern pines and forests of spruce and fir at high elevations.

The coastal plain of North Carolina is now being used extensively for plantations of native pines.

D. Facilities: Triangle Universities Computation Center. Equipped with an IBM 3081 computer system, laboratories, and extensive data processing services are available.

Libraries. The University libraries contain over 3,000,000 volumes. The Biology-Forestry Library, contains about 125,000 volumes and receives about 900 periodicals.

Greenhouses and the Phytotron. Facilities for biological investigations under controlled conditions.

The Duke Forest consists of approximately 8,300 acres of land, a variety of timber types, plant species, soils, topography and past land use conditions are represented. Elevations range from 260 to 760 feet. Several basic objectives are emphasized: 1) demonstration of timber management techniques, 2) experimental forest for research in the sciences associated with timber growing, 3) and development of the area as an outdoor laboratory for research in a wide range of scientific disciplines.

INSTITUTIONAL PROFILE

NORTH CAROLINA STATE UNIVERSITY

School of Forest Resources

Raleigh, North Carolina 27650

NORTH CAROLINA STATE UNIVERSITY
Raleigh, North Carolina

I. FORESTRY CURRICULUM OPTIONS

School of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forestry:
The concentrations in forestry include General Forestry; Business Operations; Forestry Biometry; Watershed Management; Forest Biology; Wildlife Management; Urban Forestry; Communications; Resource Interpretation. Students can obtain, in addition to the Bachelor of Science degree in Forestry, a second Bachelor of Science degree in Agricultural Economics, Conservation, Entomology, Fisheries and Wildlife Sciences, Recreation Resources Administration, or Soil Science.

2. Bachelor of Science/Natural Resource Management:
The conservation curriculum provides a broad general education in natural resource management rather than emphasizing technological aspects. Students desiring a more technical emphasis frequently combine the conservation program with a second degree.

3. Bachelor of Science/Wood Science and Technology:
An applied science utilizing the natural sciences, mathematics, engineering and economics to understand wood and its processing. Concentrations are available in: Business; Quantitative Analysis; Biology and Bio-Chemistry; Chemistry; Harvesting Operations; Industrial Engineering and Furniture Manufacturing. Concentrations other than those listed may be arranged. At the end of the sophomore year, students attend a six-week wood products practicum: set up and operate woodworking machines, make particleboard and plywood, test glued joints for strength, and apply wood finishes.

4. Bachelor of Science/Pulp and Paper Science and Technology:
After basic science courses, the students study in the specialized wood pulp processes, chemical and by-products recovery, pulp bleaching, and various paper-making operations.

   Three disciplinary programs are available. The technology program provides a broad background in mill operations or in paper industry supplier organizations. Greater depth in scientific principles and applications can be obtained from the science program or the chemical engineering program, both of which provide a foundation for graduate study. Students who have completed the chemical engineering option in Pulp and Paper Science and Technology can, in cooperation with the School of Engineering, earn a second degree, a Bachelor of Science in Chemical Engineering, with an additional semester of study. All pulp and paper majors spend at least one summer working in a pulp or paper mill.

5. Bachelor of Science/Recreation Resources Administration:
Students may study the application of recreation management to a particular environment by following one of these concentrations:
a. Commercial Recreation-- Economics, personnel management, accounting, marketing and business.
b. Institutional Recreation--Youth service agencies, corrective institutions and private agencies with an emphasis in sociology and psychology.
c. Urban Park Management--Additional courses in applied biology, horticulture, soils, municipal government and community organization are required.
d. Natural Resource Recreation Management--Natural resource management in the preservation, wise use and improvement of recreation resources and opportunities as they occur in the forest environment.
e. Recreation Planning--Aerial photo interpretation, economics, governmental planning and community organization in addition to the core curriculum courses.
f. Program Management--Techniques and skills involving the promotion and management of athletics, arts and crafts, music, dramatics and other recreation activities. Special emphases are available in sports and arts management.
g. Interpretation--The management and promotion of interpretive programs with an emphasis in the biological sciences, anthropology and history.

B. Postgraduate

Department of Forestry

Master of Forestry (thesis not required):
Master of Science (thesis required):
Doctor of Philosophy:

Emphasis is placed upon Forest Genetics and Tree Breeding, Forest Soils and Fertilization, Silviculture and Management of Southern Forests, Forest Economics, Watershed Management, Mensuration, Wildlife Habitat Management, and Resource Management, Planning, and Administration. Joint and associate faculty appointments with other departments provide exceptional opportunities for graduate studies in the forestry-related aspects of Biometry, Botany, Ecology, Economics and Business, Engineering, Entomology, Genetics, Horticulture, Hydrology, Landscape Architecture, Plant Pathology, Soil Science, and Wildlife Science.

Department of Wood and Paper Science

Master of Wood and Paper Science:
Master of Science:
Doctor of Philosophy:

Concerned with the study of wood and wood-based products. Research programs concentrate on Pulping and Bleaching, Chemistry, Environmental Engineering, Fiber Physics and Wood Chemistry. Close cooperation with the Chemical Engineering Department provides a strong engineering program for those students interested in this aspect of the pulp and paper industry. Students may elect coursework in a variety of other departments: Chemical Engineering, Chemistry, Computer Science, Economics and Business, Fiber and Polymer Science, Industrial Engineering, and Statistics.

Department of Recreation Resources Administration

Master of Recreation Resource Administration:
Master of Science:

Degree designed for graduates interested in performing the role of a recreation executive. The Master of Science is provided for graduates desiring a more adequate comprehension of research methodologies for the analysis of recreation systems, and for seeking policy and management alternatives. Illustrative specializations include the following:

Public Recreation Resources Management
Natural Resources Recreation Management
Commercial Recreation Management
Recreation Systems Planning and Analysis
Recreation and Community Schools Management

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(PROD) Wood Science and Technology
(TRIM) Forest Genetics
(SOIL) Forest (including tropical) Soils

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

The Forest Resources Extension program, serves landowners, industries and public agencies in the areas of forestry recreation, wildlife and wood and paper. Its primary responsibility is promoting the application of new ideas developed through research and experience. In cooperation with the Continuing Education Division, short courses are offered in a number of fields to provide industry and government employees an opportunity to keep abreast of modern developments in forest and forest related disciplines.

Cooperative Education Programs are designed to be an integral part of a student's educational program. The program is designed to enrich and expand classroom learning by providing sponsored work assignments in industry, business, and government. The work experience is selected in terms of its relationship to a student's major and/or career goals and provides for alternating semesters of study and full-time work.

The department has close working relations with the forest products industries through five cooperative programs of research and development (Tree Improvement, Hardwood Research, Forest Fertilization, Forest Engineering Equipment Development, and Central America and Mexico Coniferous Resources). In addition, many research programs are conducted on forest industry lands in the southeastern U.S.

Southern Forest Research Center is designed to apply science skills from the University to research questions posed by the forest industries. Projects undertaken in the center include: Tissue culture of lob-lolly pine, Forest Management, Practices on Site Productivitiy and Bioeconomic Modeling of forest production systems.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

Compania Nacional de Reforestacion/Venezuela to provide programs in education, research and extension designed to enhance the values of forest resources; establishment and management of fast growing plantations; assist in formal education of Venezuelan Nationals in the field of forestry; aid in developing a research program and forest technology.

C. Fall, 1982, Faculty statistics for School of Forest Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 75

2. Number of full time forestry faculty on overseas professional assignment:

   4 : 5-12 weeks abroad in the past 5 years
   2 : 13-26 weeks abroad in the past 5 years
   5 : 27-104 weeks abroad in the past 5 years
   2 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   2 Africa
   1 Middle East
   68 Asia & Pacific
   242 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	40	Land Use Assesment/Planning
(SOCL)	6	Sociology/Land Tenure
(POLY)	6	Forest Policy
(ECON)	37	Forest Economics
(MGMT)	45	Forest Management
(BIOM)	25	Biometrics/Data Processing
(MENS)	25	Mensuration/Inventory
(REMS)	1	Photogrammetry/Remote Sensing
(SILV)	21	Silviculture
(ECOL)	10	Forest Ecology
(BIOL)	10	Forest Biology
(SOIL)	11	Forest Soils
(ENTO)	5	Forest Entomology
(PATH)	2	Forest Pathology
(NURS)	10	Nursery/Seed Handling
(WASH)	1	Watershed Management
(COMM)	6	Public Relations/Communications
(WLMG)	2	Wildlife Management
(ENGR)	2	Forest Engineering
(HARV)	1	Forest Harvesting
(UTIL)	142	Wood Utilization
(AGRO)	2	Agro Forestry
(INFO)	65	International Forestry
(FOGE)	74	Forest Genetics

V. PROGRAM ASSOCIATIONS

1. CAMCORE (Central America and Mexico Coniferous Resource Cooperative): to prevent the reduction of and eventual lose of proven and potentially valuable coniferous species in Central America and Mexico. Members are from the private and public sector of the U.S., Latin American, Central American, and South Africa. Seed collection and testing of several species of Central American Pines; establishment of preservation banks; short-courses on forest management, nursery management and tree improvement.

2. UNIFOR (Universities for International Forestry): the School is a member of a forestry school consortium established to undertake international forestry projects.

   SECID (Southeast Consortium for International Development) participates in projects undertaken by that consortium, currently one faculty member is in charge of party of a project in Sri Lanka.

   The School also has cooperative agreement with Venezuela and Colombia to provide education and research opportunities in forestry for those countries. Beyond the formal linkages an even greater number of informal individual faculty arrangements and linkages exist involving overseas assignments.

VI. CONTACTS

A. Dr. Eric L. Ellwood, Dean
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B. Dr. J. Lawrence Apple
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North Carolina State University
Raleigh, NC 27650
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forest Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	755	5
Graduates	119	23
Total	874	28
Total campus student body	N/A	N/A

2) Geographical place of residence for foreign students:

2 Africa
0 Middle East
13 Asia & Pacific
6 Latin America
7 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(SOIL) 1 Forest Soils
(ENGR) 1 Forest Engineering
(UTIL) 13 Utilization
(TRIM) 5 Forest Genetics

C. School setting: the School is located at the edge of a large campus in the City of Raleigh N.C., and surrounded by wooded/grassy areas in a metropolitian atmosphere.

D. Facilities: the school library and most classrooms are housed on campus. Other facilities in are: 80,000 acres in forests; the Coastal Plain; the Piedmont; and the School summer camp. Specialized laboratories house machines and equipment for wood machining, gluing, finishing, preserving, testing and research. Other facilities include a saw mill, a dry kiln and a veneer lathe, chemistry/pulping testing and coloring laboratories, digesters and a small paper machine. The School houses a number of remote computer terminals.

INSTITUTIONAL PROFILE

OKLAHOMA STATE UNIVERSITY

Department of Forestry

Stillwater, Oklahoma 74078

OKLAHOMA STATE
Stillwater, Oklahoma

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry

A. Undergraduate, options in:

1. Bachelor of Science/Resource Management:
For individuals with career aspirations in federal, state and local forestry organizations, forest industry, or consulting.

2. Bachelor of Science/Forest Products:
Designed for those interested in the business/industrial aspects of forestry.

3. Bachelor of Science/Forest Science:
Designed for students with research interests in mind.

4. Between the sophomore and junior years the student participates in an eight-week field camp.

B. Postgraduate

1. Master of Science/Forest Resources:

Programs are designed to serve the needs of individual students and to fulfill certain speciality areas of Biometry, Forest Ecology, Forest Economics, Forest Genetics, Tree Improvement, Forest Management, Tree Physiology, Silviculture, and Forest Watershed Management.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(HYDR) Water Resources
(AGRO) Agroforestry
(MGMT) Management of Non-Industrial Private Forest Lands

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

N/A

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. Inter-American Institute of Agriculture
2. College of Agriculture/Ethiopia: University assisted in the development of the College. (1952-1968).

3. Rural Education Program/Jamaica: University assisted in the planning and development of the program.
4. National Institute of Agriculture Research/Ecuador: Currently providing English language training and intern programs for Ecuador government officials.
5. USAID/Honduras.

C. Fall, 1983, Faculty statistics for the Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 12

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 5 to 12 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   0 Asia & Pacific
   0 Latin America
   1 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (BIOM) 52 Forest Biometrics

5. Faculty members presently engaged in formal language training for the purpose fo strengthening international connections:

   2 : Spanish

V. PROGRAM ASSOCIATIONS

A. OSU/USAID/Winrock Foundation/Honduras.

B. MAIC (Mid-American International Agricultural Consortium).

VI. CONTACTS

A. Dr. Stanley B. Carpenter, Head
Oklahoma State University
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Stillwater, OK 74078
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B. Dr. Billy C. Wright, Assistant Dean
International Programs
Division of Agriculture
Oklahoma State University
Stillwater, OK 74078
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	87	1
Graduates	17	2
Total	104	3
Total campus student body	23,000	N/A

2) Geographical place of residence for foreign students:

2 Africa
0 Middle East
0 Asia & Pacific
0 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students:

(BIOL) 1 Forest Biology
(TRIM) 1 Forest Genetics

C. School setting: located in north central Oklahoma in City of Stillwater (pop. 38,000). Twenty-four percent of the state is forested and belongs to the oak-hickory, pine-oak, crosstimbers, and bottomland hardwood timber types.

D. Facilities: research station in southeastern Oklahoma. Teaching and laboratory facilities at the campus are complemented by a nearby greenhouse, an arboretum, and several woodlots.

INSTITUTIONAL PROFILE

OREGON STATE UNIVERSITY

School of Forestry

Corvallis, Oregon 97331

OREGON STATE UNIVERSITY
Corvallis, Oregon

I. FORESTRY CURRICULUM OPTIONS

School of Forestry

A. Undergraduate

1. Bachelor of Science/Forest Engineering:
Integrate mechanical and economic requirements of forest operations with the biological requirements to protect soil and water resoures.

2. Bachelor of Science/Forest Management:
Focus on forest and social economic forces that influence policies, the core curriculum includes biological, physical, and social sciences and minors in one of the following: business, forest biology, forest harvesting, forest products, forest soils, public administration, range management, resource recreation management, statistics, and wildlife.

3. Bachelor of Science/Forest Products:
Options in wood industry management emphasize production, sales, and technical services. Wood science emphasizes science and technology in wood and bark utilization and provides a base for advanced degree work for students interested in research, product development, and academic careers. Pulp and paper technology emphasizes wood technology as well as chemical and general engineering.

4. Bachelor of Science/Resource Recreation Management:
Emphasizes the management of forest, range, and coastal resources for recreation use. Included are the study of natural resources, recreational users of these resources, and planning and management.

B. Postgraduate

Master of Forestry:
Master of Science:
Doctor of Philosophy:

a. Forest Management:
Focus on forest management, forest economics, and forest biometry. Thesis research typically draws on the strength of these related departments, which may include the Departments of Agricultural and Resource Economics, Statistics, Business Administration, and Computer Science.

b. Forest Science:
Areas of specialization: forest ecology, forest genetics, forest physiology, and silviculture. Also offers joint degree programs in silviculture (M.F., with the Department of Forest Management) and in silviculture harvesting (Ph.D, with the Department of Forest Engineering).

c. Forest Products:
Wood science deals with wood anatomy, wood chemistry, wood physics, the mechanics of wood and the application of scientific and engineering disciplines to the conversion of wood into useful products.

d. Forest Engineering:
M.S. and M.F. in the fields of logging engineering and forest hydrology. Ph.D program in forest hydrology and harvesting and silviculture jointly with the Department of Forest Science. Focuses on problems of timber harvesting and road construction, and includes course work in soil mechanics and hydrology which provide environmental background. May include work in industrial, civil, or mechanical engineering, business, or statistics. The harvesting and silviculture Ph.D program consists of course work in silviculture, ecosystem analysis, logging systems, transportation systems, operations analysis, and statistics.

e. Water Resources:
A minor in water resources for Master of Science, Master of Arts, and Doctor of Philosophy degree programs are offered with specialization in hydrology, water quality, or water resources planning and management.

f. Fisheries and Wildlife:
Wildlife research concerning interaction of wildlife with land uses, migratory waterfowl, deer nutrition and herd health, pest contol, endangered species, and population dynamics. Fisheries research in quantitative analysis of marine and freshwater fish populations, water quality, systematics, modeling of aquatic ecosystems, land use interactions, endangered species, and aquaculture.

g. Rangeland Resources:
Programs integrate plant, soil, and animal sciences with the principles of ecology and resource management and the applicaton of remote sensing to resource analysis and watershed science.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(BIOL) Forest Biology
(ECOL) Forest Ecology
(NURS) Nursery Management
(TRIM) Tree Improvement and Genetics
(ENVT) Ecosystem Analysis
(UTIL) Wood Utilization : processing & timber engineering
(ECON) Forest Economics
(PARK) Forest Recreation Planning
(ENGR) Forest Engineering
(HARV) Forest Harvesting
(WASH) Watershed Management (harvesting on steep slopes)
(HYDR) Hydrology
(PHYS) Physiology

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Has English language institute on campus to assist foreign students.

B. Prospective or currently enrolled international students are eligile for a nonresident tuition waiver vased on financial need and ability to perform educational or community service of 80 hours.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. Zheziang University/China
2. Institute Nacional De Inv./Mexico
3. Centro Interna. De Mejora/Mexico

C. Fall, 1982, Faculty statistics for the School of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 65

2. Number of full time forestry faculty of overseas professional assignment:

   5 : 5-12 weeks abroad in the past 5 years
   3 : 13-26 weeks abroad in the past 5 years
   5 : 27-104 weeks abroad in the past 5 years
   1 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks): N/A

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	6	Land Use Planning, Assessment
(ECON)	26	Forest Economics
(MGMT)	4	Forest Management
(MENS)	1	Mensuration
(ECOL)	14	Forest Ecology
(BIOL)	14	Forest Biology
(SOIL)	3	Forest Soils
(SILV)	32	Silviculture
(ENTO)	104	Forest Entomology
(WASH)	65	Watershed Management
(ENGR)	66	Forest Engineering
(UTIL)	17	Utilization
(PARK)	48	Forest Recreation
(TRIM)	20	Forest Genetics
(INTL)	9	International Forestry

D. The School plans on expanding its International Program through: Expansion is formally carried out through the OSU International Forest Science Program which establishes and corrdinates cooperative programs in forestry education and research among Oregon State University and foreign institutions. The focus is on Pacific Rim countries.

Expect to accept more foreign faculty for a graduate training and to increase participation in international research. Also expect to initiate a summer teaching program for harvesting technology. In addition, we will increase the number of faculty members involved in short-term assignments overseas.

"Special Programs" provide specialized non-degree education and training opportunities for advanced students and faculty from other countries.

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. Carl Stoltenberg, Dean
School of Forestry
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Corvallis, OR 97331
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B. Dr. Perry Brown
International contact within School of Forestry:
Assistant Dean, Instruction
Oregon State University
School of Forestry
Telephone: (503) 754-3607/2005

C. University Contact for International Education:
Dr. Jack Vandewater
Office of International Student Services
School of Forestry
Oregon State University
Corvallis, OR 97331

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) School of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	510	4
Graduates	106	15
Total	616	19
Total campus student body	16,000	N/A

2) Geographical place of residence for foreign students:

1 Africa
2 Middle East
10 Asia & Pacific
5 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECOL) 2 Forest Ecology
(BIOL) 2 Forest Biology
(WASH) 1 Watershed Management
(UTIL) 7 Utilization
(TRIM) 1 Forest Genetics

C. School setting: a 400-acre campus, both a land and sea grant institution, Oregon State University is located in Corvallis, a clean progressive city of 42,000. A few miles to the east is the Cascade Range, with its dark green timbered slopes, snow-covered peaks, ski runs, and wilderness areas. Immediately to the west lies the Coast Range, with it Douglas-fir forests, and ocean beaches.

D. Facilities: well-equipped classroomes, laboratories, auditorium, and study facilities. The Student Learning Center gives you the opportunity for self-study at your own pace in subjects such as tree identification, aerial photography, and wood technology.

Since the forest is so close to the University, classes can drive to the forests in 10 minutes. This 12,000-acre, college-owned outdoor classroom and field laboratory provides field experience to support classroom study.

INSTITUTIONAL PROFILE

PENNSYLVANIA STATE UNIVERSITY

School of Forest Resources

University Park, Pennsylvania 16802

PENNSYLVANIA STATE UNIVERSITY
University Park, Pennsylvania

I. FORESTRY CURRICULUM OPTIONS

School of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forest Products:
   Specialization in the management, science and technology of wood production.

2. Bachelor of Science/Forest Science:
   Forest land management practices and foundation for graduate study in research or teaching.

3. Bachelor of Science/Wildlife Science:
   Conservation and management of wildlife species and their environments; foundation for graduate study.

4. Bachelor of Science/Entomology:
   Study of insects and the management of insect pest populations.

5. Bachelor of Science/Agronomy:
   Concerned with production of crops for food, feed, and fiber; turfgrass management and management of soil resources.

6. Associate in Science/Forest Technology:
   To train students in the techniques that are basic to planning, organizing, and managing forestry enterprises and to provide a program of general studies. It is intended that graduates will act in a supporting capacity to professional foresters.

B. Postgraduate

1. Master of Science:

   Oriented toward research, education, and technology in forest products, forestry and wildlife management.

2. Master of Science/Forest Resources:

   Empahsis on an application of knowledge through managerial practices involving forest resources industries or the natural environments of communities and recreational areas.

3. Master of Science/Agriculture:

   Teach skills in the communication of technical knowledge.

4. Doctor of Philosophy:

   Research, technology, and education in forest wildlife management, forestry, and forest products.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(UTIL) Wood Utilization
(WASH) Watershed Management
(HYDR) Hydrology
(ECOL) Forest Ecology
(REMS) Remote Sensing, Computer Applications
(TRIM) Forest Genetics
(BIOM) Biometrics
(MGMT) Forest Management
(SILV) Silviculture

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. Northeastern Forest Experiment Station, Amenities and Municipal Watershed Project.
2. Cooperative Fish and Wildlife Research Unit of Fish & Wildlife Service.
3. Mid-Atlantic Regional Office of the National Park Service is housed in the school.
4. Co-op educational program with Northeastern Forest Experiment Station and region state & private institutions.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

Problems in Agriculture in the tropics; includes a two-week field trip to Puerto Rico. Agricultural education in developing countries (no courses specific to forestry).

B. Formal/informal linkages between the University and foreign institutions:

1. PSU/USDA/The Peoples Republic of China: Exchange of faculty and students; conducting of cooperative research and exchange of library materials; grant initiated research in poultry breeding and management, soils, and plant pathology.

2. PSU/University of Nairobi/Kenya: Exchange of students and faculty.

3. PSU/USAID/SECID/Kenya: five-year subcontract, provides faculty members in soils and agricultural education at Egerton College.

4. PSU/University of Younde/Cameroon: A formal aggreement with the university for student exchange.

5. PSU/USAID/Sri Lanka: Along with the Academy for Educational Development, VPI, and Texas A&M in a seven-year agricultural education development program with the University of Peradeniya; provided faculty and supervised research for members of University of Peradeniya faculty enrolled at PSU for graduate programs.

6. PSU/University of Swaziland/Swaziland: Faculty and student exchange. As part of a USAID/PSU Cropping Systems Project, personnel work with Faculty of Agriculture in the training of Swazi agricultural extension personnel.

7. PSU/USIA/Zimbabwe: Student and faculty exchange with the University of Zimbabwe.

8. Through previous USAID contract programs, PSU has contacts that would be helpful in development of future programs. These include the University of Mahatma Phule in Maharashtra State, India; the Ministry of Agriculture in the Bahamas; and the Ministry of Agriculture in Uruguay. Under all of these programs, PSU provided agricultural technical assistance and assistance in the training of participants in a wide area of agricultural disciplines.

C. Fall, 1983, Faculty statistics for School of Forest Resources

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 26

2. Number of full time forestry faculty on overseas professional assignment:

   2 : 5 to 12 weeks abroad in the past 5 years
   1 : 13 to 26 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   4 Middle East
   6 Asia & Pacific
   0 Latin America
   42 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (MGMT) 1 Forest Management
   (REMS) 1 Remote Sensing
   (SILV) 2 Silviculture
   (PATH) 1 Forest Pathology
   (WASH) 31 Watershed Management
   (UTIL) 4 Utilization
   (TRIM) 2 Forest Genetics
   (UBRN) 3 Urban Forestry
   (REML) 3 Reclamation of Mined Lands

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : French

D. The School intends on expanding its international forestry program through currently working with a private firm to develop genetic research on forest trees for Saudi Arabia.

V. PROGRAM ASSOCIATIONS

A. SECID (Southeast Consortium for International Development)

VI. CONTACTS

A. Dr. Robert S. Bond, Director
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B. Dean Jansma
Interim Assistant Dean and Director
College of Agriculture of International Agricultural Programs.
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C. Dr. Henry Gerhold
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Forest Resources Building
The Pennsylvania State University
University Park, PA 16802
Telephone: (814) 865-7541

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) School of Forest Resources:

1) Number of students enrolled	U.S.	Foreign
Undergraduates	170	0
Graduates	63	7
Total	233	7
Total campus student body	32,000	N/A

2) Geographical place of residence for foreign students:

0 Africa
1 Middle East
5 Asia & Pacific
0 Latin America
1 Non LDC's

3) Graduate student specialization for foreign students:

(MGMT) 1 Forest Management
(UTIL) 3 Utilization
(TRIM) 1 Forest Genetics

C. School setting: in a small town setting, surrounded by rural, agricultural and forest land. Served by commuter airline from Pittsburgh and Washington, D.C. The temperature ranges from 10 degrees in winter to 90 degrees in the summer, with the mean temperature approximately 32 and 75 degrees, respectively.

D. Facilities: the Forest Resources Lab has a small sawmill, experimental dry kiln, machine shop, several product's labs, water labs, greenhouses and wildlife lab.

The Experimental Forest is 6,000 acres, 15 miles southeast of the campus. Also, there are about 500 acres of woodlots adjacent to campus.

The Library is centralized with a collection of forest and other natural resource books, journals and periodicals.

INSTITUTIONAL PROFILE

CLEMSON UNIVERSITY

Department of Forestry

Clemson, South Carolina 29631

CLEMSON UNIVERSITY
Clemson, South Carolina

I. FORESTRY CURRICULUM OPTIONS

College of Forest and Recreation Resources

Offers curricula in forest land administration, recreational management, production, utilization, and marketing of wood and allied products.

A. Undergraduate

1. Bachelor of Science/Forest Management:
   Combines a broad education in liberal arts and the physical, mathematical, and biological sciences with the applied sciences needed in the management of the forest and forest environment for their products and services.

2. Bachelor of Science/Wood Utilization:
   Emphasis in three areas of specialization: Wood Science, Wood Industries Management, and Forest Management. Wood science deals with the properties and processing of wood, wood fiber, and products derived from wood. Wood Industries Management prepares students for the managerial aspects of forest products industries, including marketing and technical services.

B. Postgraduate

1. Master of Science
2. Master of Forestry (non-thesis degree)
3. Doctor of Philosophy

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(SILV) Silviculture
(WOEN) Wood Energy

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. Units of the Southeast Forest Experiment Station, USFS
2. Unit of the National Park Service (Research)
3. Regional Resources Development Institute
4. Water Resources Research Institute
5. The Institute of Ecology
6. Southern Appalachian Research Resource Management Cooperative

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1983, Faculty statistics for the Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 30

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 5 to 12 weeks abroad over the last 5 years
   1 : 13 to 26 weeks abroad over the last 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

0	Africa
0	Middle East
4	Asia & Pacific
14	Latin America
0	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	8	Land Use Planning
(POLY)	3	Forest Policy
(SOCL)	3	Sociology
(ENTO)	4	Forest Entomology
(PATH)	10	Forest Pathology
(WASH)	2	Watershed Management
(UTIL)	4	Wood Utilization
(TRIM)	16	Forest Genetics

V. PROGRAM ASSOCIATIONS

A. Southeastern Forest Experiment Station, USDA Forest Service.

VI. CONTACTS

A. Dr. Benton H. Box, Dean
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B. Dr. Thomas E. Wooten
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Clemson, SC 29631
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C. Dr. M. A. Taras, Head
Department of Forestry
Clemson University
Clemson, SC 29631
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	108	1
Graduates	36	0
Total	144	1
Total campus student body	13,500	310

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
1 Asia & Pacific
0 Latin America
0 Non LDC's

C. School setting: the University is located in the foothills of the Blue Ridge Mountains (elevation +800 Feet). The campus consists of 1,400 acres and 18,000 acres of forestry research lands.

D. Facilities: in addition to office laboratories and classrooms, the campus library has 13,000 serials and 950,000 volumes. An outdoor lab on the Experimental Forest, provides a facility for recreation research and public service. Also, the Forest Science Institute has 7,500 acres of coastal plain sites on which to do field studies.

INSTITUTIONAL PROFILE

UNIVERSITY OF TENNESSEE

School of Forestry, Wildlife & Fisheries

Knoxville, Tennessee 37901

UNIVERSITY OF TENNESSEE
Knoxville, Tennessee 37901

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry, Wildlife and Fisheries

A. Undergraduate

1. Bachelor of Science/Forestry
   a. Forest Resource Management: Education related to the management of woodland resources, including specialized training in the following areas of forestry: Plant Physiology and Morphology, Ecology, Genetics, Tree Nutrition, Forest Soils, Economics, Business Administration, Mathematics, Computer Science, Photogrammetry, Statistics, Natural and Social Sciences, and Wildlife Management.
   b. Forest Recreation: Provides students with skills in the planning, development, interpretation, and management of private and public forested lands for recreational purposes.
   c. Wood Utilization: Trains students for careers in forest products industries such as lumber, furniture, pulp and paper, or wood composites; oriented toward the application of wood technology and engineering principles to wood processing.

2. Bachelor of Science/Wildlife and Fisheries Science: Application of scientific information in wildlife population management, ecology, execution of programs to maintain past successes, to prevent repetition of past failures, and to prepare for future needs.

B. Postgraduate

1. Master of Science/Forestry
2. Master of Science/Wildlife and Fisheries Science

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(LAUS) Land Use Planning
(BIOL) Forest Biology
(WLMG) Wildlife Management
(FISH) Fisheries Management
(TRIM) Forest Genetics

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Co-op educational work programs are arranged on an individual basis with: TVA (Tennessee Valley Authority), ORNL (Oak Ridge National Lab), USDA Forest Service, TWRA (Tennessee Wildlife Resource Agency), and the U.S. Fish and Wildlife Service.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions

1. Federal University of Amazonas - Manus, Brazil
2. Federal University of Ceara - Fontaleza, Brazil
3. Federal University of Paraiba - Joao Pessao, Brazil
   Exchange of students and faculty; cooperative research programs; energy and biomass; and social/economic land use development.
4. UT/Aachen, Technische Hochschule/West Germany: Cooperative student and faculty exchange program.
5. UT/The University of Amazonas/Brazil: Cooperative program in joint study of technical, scientific, and cultural problems, economic and soical development. 1978 to present.
6. UT/Bonn Universitat/West Germany: Student exchange.
7. UT/The Federal University of Ceara/Brazil: Faculty development; student exchange; cooperative research program (energy, biomass, library science); and development of English and Portuguese language programs.
8. UT/International Student Exchange Program/Washington, D.C.: Reciprocal student exchange. 1979 to present.
9. UT/Federal University of Paraiba/Brazil: Faculty and student exchange, collaborative research and development programs. 1979 to present.
10. UT/University of Santiago/Chile: Coordination of research and faculty exchange programs in collaboration in international conferences and other meetings. 1981 to present.
11. UT/USAID/SECID/Rwanda: Environmental training and management in Africa.

C. Fall, 1983, Faculty statistics for the School of Forestry, Wildlife and Fisheries:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 22

2. Number of full time forestry faculty on overseas professional assignment:

   3 : 5 to 12 weeks abroad in the past 5 years
   1 : 13 to 26 weeks abroad in the past 5 years
   1 : 27 to 104 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   0 Asia & Pacific
   140 Latin America
   8 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(FORY)	22	Silvics
(ECOL)	20	Forest Ecology
(BIOL)	22	Forest Biology
(SILV)	2	Silviculture
(WLMG)	2	Wildlife Management
(ECON)	5	Forest Economics
(PARK)	5	Forest Recreation
(UTIL)	3	Wood Utilization

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   5 : Spanish

D. As a result of Title XII Aid Stengthening Grant, the school is engaged in expanding its international forestry activities:

   1. On-campus visits by invited international experts to appraise and acquaint faculty with international opportunities.
   2. Upgrading of reference library materials of international scope.

V. PROGRAM ASSOCIATIONS

1. SECID (Southeast Consortium for International Development)

2. MOU (Memorandum of Understanding): University of Tennessee and Lanzhou University (1983) academic cooperation; faculty exchange; and program development.

VI. CONTACTS

A. Dr. Gary Schneider, Head
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B. Dr. Glen Hall, Dean
College of Agriculture
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University of Tennessee
Knoxville, TN 37901
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C. Mrs. Nancy McCormack
Associate Director
Division of International Education
205 Alumni Hall
University of Tennessee
Knoxville, TN 37901
Telephone: (615) 974-3475

D. Dr. Dewey Bunting, Director
Graduate Programs in Ecology
691 Old Dabney Hall
University of Tennessee
Knoxville, TN 37901
Telephone: (615) 974-3065

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forestry, Wildlife & Fisheries

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	171	1
Graduates	35	1
Total	206	2
Total campus student body	27,018	852

2) Geographical place of residence for foreign students:

0 Africa
0 Middle East
1 Asia & Pacific
1 Latin America
0 Non LDC's

3) Gradute student specialization for foreign students:

(WASH) 1 Watershed Management

C. School setting: the campus is located in the metropolitan center of Knoxville, Tennessee. It is about equidistant (approximatley 200 miles) from Cincinnati to the north, Atlanta to the south and Nashville to the west, all linked by interstates and airways. Mean summer temperature is 76 degrees, mean winter temperature is 44 degrees F. Yearly rainfall averages 45.5 inches evenly distributed throughout the year.

D. Facilities: the University has over 21,000 acres of forest lands available for teaching, research and demonstration. Contained within these areas is a wide variety of tree species, forest types, and wildlife habitats ranging from elements of the boreal forest to southern pines and hardwoods.

INSTITUTIONAL PROFILE

STEPHEN F. AUSTIN STATE UNIVERSITY

School of Forestry

Nacogdoches, Texas 75962

STEPHEN F. AUSTIN STATE UNIVERSITY
Nacogdoches, Texas

I. FORESTRY CURRICULUM OPTIONS

School of Forestry

A. Undergraduate

1. Bachelor of Science/Forestry:
2. Bachelor of Science/Environmental Science:
   Prior to the end of the sophomore year, all students in the Forestry School should select a degree program.

   All students pursuing a degree in Forestry are required to attend one session of the Forestry Field Station, during the summer between their Junior and Senior year. Students in the Environmental Science degree program are not required to attend the Field Station.

Department of Forestry

B. Postgraduate

1. Master of Science/Forestry (thesis and non-thesis option):

   The non-thesis MSF program is limited to a cooperative program between the Schools of Forestry and Business with course work reports and a professional paper in the student's area of interest.

2. Master of Forestry:

   The MF program requires graduate course work, thesis research and writing. This degree is designed for students who do not have undergraduate degrees in forestry, but who wish to become professional foresters, as well as earn master's degrees in specified areas of study.

3. Doctor of Forestry:

   To provide a broad education in forestry and specialization in a particular aspect of forestry.

4. Doctor of Philosophy:

   As part of its cooperative doctoral degree program agreements with Texas A&M University, Stephen F. Austin State University offers students the opportunity to make use of all facilities of the two institutions in a program leading to the Ph.D degree in Forestry (to be granted by Texas A&M University).

All faculty members involved in this doctoral degree program have received appointments to the Graduate faculty's of the two institutions. Up to one-half of the required formal course work may be taken at Stephen F. Austin State University. Dissertation research and writing may be conducted at the Nacogdoches campus.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(UTIL) Wood Science Utilization
(PARK) Recreation, National Parks
(SILV) Silviculture
(MGMT) Management
(PHYS) Physiology (Silvics)
(WLMG) Wildlife Management
(RCLM) Reclamation
(FIRE) Fire Management
(URBN) Urban Forestry
(WASH) Watershed Management
(HYDR) Hydrology

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. A limited number of internships are available with public and industry units. It is possible to design programs for individual students that involve both formal academic training and job experience.

2. The School does not offer senior executive level programs on a regular basis. However, educational programs designed for middle management field line personnel are offered as continuing education programs.

3. A limited number of cooperative education programs are available.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

1. Laboratories of the U.S. Forest Service's Southern Forest Experiement Station, the U.S. Bureau of Sport Fisheries and Wildlife, and the Texas Parks and Wildlife Department, located in the SFA Forestry Center, are also used for graduate instruction and research. More distant installations for student and faculty research are the Texas Utilities Environmental Research Center, and the Central Texas Nature Center.

B. Formal/informal linkages between the School and foreign institutions:

1. SFASU/Honduras/CODEFOR: Training of Honduras foresters at the Bachelor's level. Contract 4+ years; expired 1981.

C. Fall, 1982, Faculty statistics for the School of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 21

2. Number of full time forestry faculty of overseas professional assignment:

   2 : 1 to 4 weeks abroad in the past 5 years
   1 : 5 to 26 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   4 Middle East
   6 Asia & Pacific
   3 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (ECON) 3 Forest Economics
   (SILV) 2 Silviculture
   (BIOM) 4 Forest Measurements
   (WASH) 2 Watershed Management/Hydrology
   (MGMT) 2 Forest Management

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

1. Texas A&M University Consortia

VI. CONTACTS

A. Dr. Kent Adair, Dean
School of Forestry
Stephen F. Austin State University
Nacagdoches, TX 75962
Telephone: (409) 569-3304

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) School of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	250	3
Graduates	54	1
Total	304	4
Total campus student body	12,500	100

2) Geographical place of residence for foreign students:

3 Africa
0 Middle East
1 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(SILV) 2 Silviculture
(WASH) 1 Watershed Management

C. School setting: the University, is located in the city of Nacogdoches (pop. 30,000). The main campus includes approximately 400 acres.

In a setting of pine trees, the University has some twenty-five major instructional buildings and nineteen dormitories.

D. Facilities: forest land near the campus provides field laboratories for study and research. Four national forests, the Experimental Forest, industrial properties, a Corps of Engineers recreation area lease, and the School of Forestry Field Station tract under long-term lease are examples.

The University has data processing facilities and a desk-top computer laboratory available for teaching and research.

Facilities of the department allow research in a diversity of fields of study in forestry: Soils, Economics, Ecology, Mensuration, Biometrics, Computer Sciences, Forest Management (including Timber, Game Watershed, and Recreation), Wood Technology, Wood Chemistry, Tree Physiology, Entomology, Pathology, Silviculture, Dendrology, Forest Fire Control, Photogrammetry and Forest Engineering. The forestry building, containing 27,000 square feet of space, houses administrative and instructional offices, laboratory-classroom facilities, and forest fire simulator. The Department has dry kilns for experimental use, timber-testing equipment, air-conditioned greenhouses, a growth chamber, radioisotope equipment, a seedling nursery, a meteorological station and instrument tower, and a stream-guaging station.

INSTITUTIONAL PROFILE

TEXAS A&M UNIVERSITY

Department of Forestry Science

College Station, Texas 77843

TEXAS A&M UNIVERSITY
College Station, Texas

I. FORESTRY CURRICULUM OPTIONS

Department of Forest Science

Institute of Renewable Natural Resources

A. Undergraduate

1. Bachelor of Science/Forestry, options in:
   a. Forest Management: Emphasis in timber management, range, recreation, water and wildlife. Competence in business administration or one of the related natural resource fields is possible through the selection of appropriate electives. Field instruction includes laboratory problems and trips to forest operations and utilization complexes, as well as a five-week summer program between the junior and senior years.

   b. Urban Forestry: Management, technical assistance and service programs related to urban forestry. Involves the use of forest vegetation for sound and sight barriers, planning green belt and open space areas, flood plain management, residential planning, park development and maintenance. In addition to technical courses in forestry and associated subjects, students will be concerned with studies related to the social and economic problems of urban centers.

   c. Natural Resource Conservation: The purpose of this program of study is to develop a generalist in natural resources who can function in a variety of managment capacities. Emphasis is placed on an ecological approach to the development and conservation of natural resources and their uses for the benefit of humans.

   d. Forest Operations: Emphasizing the use of machanical systems in management, timber production and processing. Courses in mechanization and scheduling and economic analysis. The use of microcomputers in the application of business principles is an integral part of the program.

B. Postgraduate

1. Master of Agriculture (no thesis required):
2. Master of Science:
3. Doctor of Philosophy:

The Master of Agriculture degree is designed to strengthen professional knowledge and skills through advanced coursework in forestry, allied resource areas, business and management.

Candidates for the M.S. or Ph.D. degrees may include support courses related to the forest sciences, including Ecology, Economics, Engineering (in cooperation with the Departments of Agricultural Engineering and Civil Engineering), Entomology, Genetics, Mensuration, Pathology, Physiology, Remote Sensing, Silviculture, Soils and Wood Technology, Wood Chemistry and Wood Energy. Much of the course work in these specailized disciplines is available through other departments within the University.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(POLY)	Forest Policy	(WASH)	Watershed Management
(ECON)	Forest Economics	(HYDR)	Hydrology
(MGMT)	Forest Management	(COMM)	Public Relations/ Communications
(BIOM)	Biometrics/Data Processing		
(MENS)	Mensuration/Inventory	(WLMG)	Wildlife Management
(REMS)	Photogammetry/Remote Sensing	(FISH)	Fisheries Management
(SILV)	Silviculture	(RAMG)	Range Management
(ECOL)	Forest Ecology	(ENGR)	Forest Engineering
(BIOL)	Forest Biology	(HARV)	Forest Harvesting
(SOIL)	Forest Soils	(UTIL)	Wood Utilization
(ENTO)	Forest Entomology	(PARK)	Recreation/National Parks
(PATH)	Forest Pathology		
(NURS)	Nursery/Seed Handling	(URBN)	Urban Forestry
(AGRO)	Agroforestry		

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Cooperative education programs are available on a limited basis for undergraduate students. The Master of Agriculture degree requires an internship of at least one semester with industry or a governmental agency. Stipends are available on a competitive basis. The forestry agency for the State of Texas is a part of the University System and offers opportunities for involvement in public-funded action programs. Cooperative industry research programs in forest genetics provide unique opportunities for exposure to industrial and governmental forestry operations.

B. The Forest Genetics program is supported by industrial forestry firms and state agencies in a five-state area. This internationally recognized program provides unique opportunities for students to be exposed to the scientific and operational aspects of tree improvement, ranging from the use of tissue culture for screening selections to the establishment and operation of production seed orchards. The program is supported by institutional strengths in genetics, physiology, soils and several areas of biotechnology.

C. The Stress Physiology program seeks to determine the biochemical and physiological bases for drought resistance in woody plants. Tissue culture techniques are used to improve the efficiency of genotypic screening.

D. The program in Wood Chemistry is concerned with the processing of agricultural and forestry biomass for liquid fuels and chemical by-products. Students and scientists from several countries study in the laboratory and develop the skills necessary to process native materials into more efficient energy sources.

E. The department is a leader in the application of remote sensing and microcomputer techniques to resource management information systems. Well-equipped teaching laboratories provide students with hands-on experiences in information classification, storage and retrieval, including the use of satellite data.

F. Soil and silviculture laboratories support teaching and research programs in nutrient cycling, regeneration, and stand management on the diverse sites across the Western Gulf Region of the United States.

G. The Urban Forestry program draws students from the U.S. and abroad to study the biological, political, and social values of natural vegetation in the urban environment.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:
   1. Texas A&M University/Mexican Ministry of Education/Mexico: Providing advanced professional education for graduates of the Forest Engineering School in Durango, Mexico. Two year contract.
   2. Texas A&M University/Louis Berger International/Kenya: Provided graduate education programs in arid land forestry. Short-term; two years.

C. Fall, 1982, Faculty statistics for Department of Forest Science:

   1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 12

   2. Number of full time forestry faculty on overseas professional assignment:

      3 : 1 to 4 weeks abroad in the past 5 years

   3. Forestry faculty by geographical place of assignment (in aggregated person weeks:

      0 Africa
      0 Middle East
      6 Asia & Pacific
      4 Latin America
      0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks:

   (ECON) 4 Forest Economics
   (TRIM) 3 Forest Genetics
   (MGMT) 3 General Forestry

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Spanish

D. The School plans to expand its involvement in international forestry through pursuing work with USAID; along with the University's Office of International Coordination. It will be particularly interested in providing educational programs with emphasis on resource management under semi-arid conditions. It is also strengthening its programs in biotechnology, including tissue culture, plant stress, and genotype modification.

V. PROGRAM ASSOCIATIONS

Title XII: Texas A&M proposes to expand its present University strengths in agricultural production and processing, to develop planning/resource management tools, and in the adaptation and application of agricultural production technology to the needs of developing nations.

VI. CONTACTS

A. Dr. Charles Lee, Head
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B. Dr. Philip C. Limbacher, Director
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College Station, TX 77843-1245
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) Department of Forestry Science:

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	58	3
Graduates	22	12
Total	80	15
Total campus student body	N/A	N/A

2) Geographical place of Residence for foreign students:

2 Africa
1 Middle East
1 Asia & Pacific
9 Latin America
0 Non-LDC's

3) Graduate student specialization for foreign students:

(ECON) 4 Forest Economics
(BIOL) 1 Forest Biology
(SILV) 4 Silviculture
(URBN) 1 Urban Forestry
(AGRO) 2 Agroforestry

C. School setting: the City of College Station, with a population of approximately 100,000, is located nearly midway between Houston and Dallas, approximately 100 miles east of Austin and 180 miles northeast of San Antonio. There are numberous parks and other recreational facilities in the twin cities. Several lakes, national forests, and other recreational areas are within an hour's drive of the campus, and the Gulf of Mexico is 140 miles to the south. The temperature averages 50 degrees (Fahrenheit) in winter, 69 degrees in spring, 82 degrees in summer, and 71 degrees in fall. The annual rainfall averages 38.75 inches.

The University is located in the transition zone between the southern pine forest region and the semi-arid region of central Texas. Branch research stations are distributed throughout the diverse climatic and physiographic regions to support research under local conditions.

D. Facilities: greenhouses, local field research areas, and the extensive forests of east Texas are available for research. Cooperative University/Industry research programs provide additional avenues for relevant research experiences. Also available on the campus are the Electron Microscope Center, the Data Processing Center and a 1.5 million-volume library.

INSTITUTIONAL PROFILE

UTAH STATE UNIVERSITY

College of Natural Resources

Logan, Utah 84332

UTAH STATE UNIVERSITY
Logan, Utah

I. FORESTRY CURRICULUM OPTIONS

College of Natural Resources
Department of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forestry:
   Programs of emphasis in Forest Biology, Management, Recreation, Watershed Management and Computer Forestry. Summer camp, which normally follows the sophomore year, is considered to be the point of admission to the forestry curriculum.

2. Bachelor of Science/Recreation Resource Management:
   Recreation resource majors must complete ten weeks of professional work experience.

3. Bachelor of Science/Watershed Management:
   An interdepartmental organization between the Forest Resources and the Range Science Departments. The curriculum is oriented toward basic sciences, and serves as a base for study in wildland hydrology. Emphasis to watershed management in conjunction with either a range or forestry background.

Department of Range Science

4. Bachelor of Science/Range Science:
   Programs of emphasis in Forest-Range Management, Range Watershed Management, Range Resource Economics, Range-Wildlife Relations, and International Range Management.

B. Postgraduate

1. Master of Forestry
2. Master of Science/Forestry
3. Master of Science/Forest Ecology
4. Master of Science/Watershed Science
5. Master of Science/Recreation Resource Management
6. Doctoral Degree/Forestry
7. Doctoral Degree/Forest Ecology
8. Doctoral Degree/Watershed Science
9. Doctoral Degree/Recreation Resource Management

   Curricula may be developed to emphasize either research or managerial and administrative sciences.

C. Other degree programs include: Range Science, Range Ecology, Fisheries & Wildlife, Fisheries & Wildlife Ecology, Plant Science/Ecology, Soil Science, Animal & Dairy Science, Agricultural Economics Education/Industries.

D. The Watershed Science Unit, an interdepartmental organization between the Forest Resources Department and Range Science Department, offers both masters and doctoral degrees in Watershed Science. Graduates of these programs are qualified hydrologists.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(HYDR) Hydrology
(WASH) Watershed Management
(SOIL) Tropical Soils
(SOCL) Sociology

III. SUPPORTING RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. The Watershed Science Unit, an interdepartmental organization between the Forest Resources and the Range Science Departments, administers programs in watershed science at the undergraduate and graduate levels, and in watershed management at the undergraduate level.

2. Environmental Studies. This curriculum is designed for students who want a broad understanding of human, natural resource, and environmental relationships and issues and to understand the biophysical, social, and political aspects of natural resource problems. Strong curricular majors could be developed in computer science, soils, journalism, outdoor recreation, planning, or botany, and the student could find employment in these specialties with the bachelors degree.

3. Diploma in Forest Resources Mangement. This is a non-degree program intended for those wishing to specialize in professional development without meeting the academic qualifications for a degree.

4. In Service Training. The Department currently offers training courses in silviculture, recreation resource management, wildland fire management, research methods and analysis and design and use of wildland management information systems for mid-career professional in the natural resource management fields.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

Short-term involvement in tropical forestry and watershed management and in the training of international students in forestry and watershed management in the arid and semi-arid tropics and other areas of the developing world.

B. Formal/informal linkages between the School and foreign institutions:

Involvement in international programs dates back to the early 1950's. In recent years Utah State University has been involved with work in Bolivia, Colombia, El Salvador, Honduras, Iran, Senegal, Kenya, Cameroon, Tanzania, Cape Verde, Venezuela, Ecuador, Peru, Brazil, Upper Volta, Morocco, and Somolia. Current involvement includes: Somolia, Morocco, and Lesotho.

1. USAID/USU:
   Foreign Participant Training
   USU cooperates with FAO, EMBRAPA, IEE, and USAID through the US Department of Agriculture to develop special academic and practical programs for foreign participants nominated by the agencies.

2. USAID/USU/Africa:
   Project Assessment and Evaluation
   To identify, study, and evaluate projects in agriculture, education, and human resources development.

3. USU/USDA/USAID/Bangladesh:
   Bangladesh Agricultural Sector Assessment
   To describe in publication form the Agricultural Sector of Bangladesh.

4. USU/Government of Brazil:
   Rangeland Research for Increasing Small Ruminant Production in Brazil

5. CID/USU/New Mexico State University/Arab Republic of Egypt
   Egypt Major Cereals Project:
   This project provides technical leadership and training to Egyptian nationals to develop food production and natural resource management/development.

6. CID/USU/CSU/Gambia:
   The Gambia Project
   This contract provides technical agronomic assistance to a food production/natural resource management and development project in the Gambia.

7. USU/FAO/Lesotho Participant Training:
   Heir project in training 5 students per year at the Doctorate level in forest resources management.

8. USU/Honduras (Misistry of Natural Resources)
   Water Resource Training and Professional Services:
   Technical assistance and training to assist the government of Honduras in the development of their water resources is the objective of this program.

9. USU/Government of Morocco:
Rangeland Research for Increasing Small Ruminant Production in Morocco
The purpose of this project is to strengthen range research capability and to increase research collaboration with Moroccan range scientists.

10. Range Management and Development (Morocco):
This project emphasis deals with extension demonstration programs at five range perimeters, all of which advance improvements in range management in Morocco.

11. USAID/USU/Senegal:
Managing the Water Resources of the Senegal River Basin
This project provides assistance and training to OMVS personnel regarding cost allocation and other operational water resource management capabilities.

12. Louis Berger/USU/Somalia:
Somalia Central Rangelands Development Project, Education Subcontract
This subcontract provides professional teachers in range management to initiate long-term educational programs through which Somalia nationals will be trained in range resource management. Also, a curriculum in range management will be established at the University of Somiliaand at the Livestock and National Secondary School.

13. USAID/USU/Tanzania:
Agricultural Education and Extension
Under this contract, USU will provide the long-term faculty to assist in improving the program of the Center for Continuing Education in the University of Dar es Salaam, Faculty of Agriculture.

14. East-West Institute:

The institute offers an areas study certificate in East-West relations. The institute is under the direction of a faculty council whose members are available to advise and confer with students wishing to specialize in this area. Special convocations and seminars are included in the program.

C. Fall, 1982, Faculty statistics for the College of Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 12

2. Number of full time forestry faculty on overseas professional assignment:

1 : 5 to 12 weeks abroad in the past 5 years
1 : 13 to 26 weeks abroad in the past 5 years
2 : 27 to 104 weeks abroad in the past 5 years
1 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

10	Africa
50	Middle East
20	Asia & Pacific
52	Latin America
0	Non LDC's

4. Type of overseas (specialization) assignments (in aggreated person weeks:

(POLY)	20	Forest Policy
(SOCL)	1	Sociology/Land Tenure
(ECON)	49	Forest Economics
(SOIL)	74	Forest Soils
(WASH)	70	Watershed Management
(AGRO)	4	Agro (village) Forestry
(LAUS)	7	Land Use Assessment/Planning
(BIOM)	11	Biometrics, Data Processing
(MENS)	13	Mensuration/Inventory
(REMS)	14	Remote Sensing
(SILV)	5	Silviculture
(SOIL)	1	Forest Soils
(FIRE)	9	Fire Management
(NURY)	10	Nursery/Seed Handling

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

D. The school plans to expand the international aspects of its forestry program through twinning agreements in Africa and Asia and AID projects in Latin America.

V. PROGRAM ASSOCIATIONS

A. Title XII: long-term commitment, involving 18 faculty members covering: natural resources, irrigation and water management, human nutrition training and institution building in research, extension, and education.

B. International Natural Resource activities provided by USU through Consortium for International Development (CID): forestry, watershed and natural resource management, project evaluation, planning, analysis, irrigation, engineering, hydrology, water resource and management, range management and ecology, animal, plant, soil science, agricultural and resource economics, arid land development and utilization, sociology, development management and administration.

VI. CONTACTS

A. Dr. R. F. Fisher, Head
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Logan, UT 84322
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B. Dr. R. H. Hawkins
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UMC 52
Utah State University
Logan, UT 84322
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) College of Natural Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	144	5
Graduates	20	6
Total	164	11
Total campus student body	11,849	830

2) Geographical place of residence for foreign students:

4 Africa
6 Middle East
0 Asia & Pacific
1 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(LAUS) 7 Land Use Assessment/Planning
(SOCL) 11 Sociology/Land Tenure
(MGMT) 1 Forest Management
(BIOM) 12 Biometrics/Data Processing
(MENS) 13 Mensuration/Inventory
(REMS) 13 Photogrammetry/Remote Sensing
(SILV) 5 Silviculture
(SOIL) 1 Forest Soils
(FIRE) 9 Fire Management
(NURS) 10 Nursery/Seed Handling
(WASH) 3 Watershed Management
(HYDR) 4 Hydrology
(RAMG) 8 Range Management
(PARK) 6 Recreation/National Parks
(AGRO) 2 Agroforestry

C. School setting: the geographical location of the college provides facilities for field experience. Forest and range lands in Utah comprise more than 90 percent of the total state area. Areas of natural lands provide foresc, range, soil conservation, and wildlife problems, and offer study projects and opportunities for demonstration.

D. Facilities: housed in a building with fully equiped laboratories for study in water quality, forest and range soils, silviculture, economics and management, fire control, watershed management, physiology, genetics, recreation management, mensuration and computer sciences. There is a modern greenhouse, over 5,000 acres of experimental forest, and a resident research and instructional facility in the mountains.

INSTITUTIONAL PROFILE

UNVIERSITY OF VERMONT

School of Natural Resources

Burlington, Vermont 05405

UNIVERSITY OF VERMONT
Burlington, Vermont

I. FORESTRY CURRICULUM OPTIONS

The School of Natural Resources

A. Undergraduate

Bachelor of Science:

1. Forestry: Train and educate students in both public and private institutions as land managers, and district/city/industrial foresters.
2. Environmental Studies: Designed to promote a better understanding of both cultural and physical environments by integrating academic studies with community experiences.
3. Recreation Management: Preparation in planning and management of either public or private recreation areas. All undergraduates are required to attend a summer field session to learn mapping, planning, recreation resource inventory and other management skills.
4. Resource Economics: Training in effective use of economics and conservation. Special internships allow students to apply theory to work situations.
5. Wildlife and Fisheries Biology: Focuses on research and management of wildlife, fish and people in the total environment. The curriculum includes summer field courses in ornithology, habitat and population measurements, and extensive laboratory and field work during the regular year.

B. Postgraduate

1. Master of Science/Forestry:

   Specialization in forest resource management through coursework, seminars and individual research.

2. Master of Science/Natural Resource Planning:

   Theoretical and practical skills in the natural and social sciences necessary to solve complex natural resource planning problems at local, state, regional and national levels.

3. Master of Science/Wildlife and Fisheries Biology:

   To develop research abilities and to pursue a specialized course of study; non-game and game management, quantitative wildlife habitat studies, behavioral/ecology, and freshwater fisheries biology.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(BIOL) Biology
(SILV) Silviculture
(AGRO) Agroforestry
(ECON) Resource Economics
(REMS) Photogrametry/Remote Sensing
(LAUS) Natural Resource Planning

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Cooperative relation between the School, the U.S. Forest Service and the Vermont Department of Forests and Parks: Silvicultural controls for Scleroderris canker - study for finding more effective disease management systems.
B. Cooperative relation between the School, state, and national agencies investigating forest defoliation by insect pests via satellite imagery and mapping applications.
C. Cooperative relation with U.S.D.A./Forest Service on the study of water quality changes through application of improved land and manure management practices.
D. Interdisciplinary project: Demonstration of land management options for small woodlot owners, covering: wildlife populations; effective timber harvesting practices; and multiple-use practices.
E. Study examining the carrying capacity of the state's rivers and lakes in terms of their recreational use.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

- Zimbabwe: Development of technical schools
- Uganda: Rural development
- Cameroon: Rural development
- Honduras: Agroforestry project

C. Fall, 1982, Faculty statisitcs for School of Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 20

2. Number of full time forestry faculty on overseas professional assignment:

2 : 5 to 12 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

0	Africa
0	Middle East
0	Asia & Pacific
16	Latin America
8	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(SOIL)	2	Forest Soils
(SILV)	4	Silviculture
(FISH)	15	Fisheries Management
(INTL)	3	International Forestry

D. The School plans to expand its international forestry program through increasing its foreign student population.

V. PROGRAM ASSOCIATIONS

Title XII: aid strengthening proposal for programs in rural human and animal nutrition.

VI. CONTACTS

A. Dr. Lawrence K. Forcier
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B. Dr. George W. LaBar
Associate Professor, Wildlife and Fisheries Biology
International Affairs
University of Vermont
Burlington, VT 05405

C. Dr. Robert B. Lawson
Dean, Graduate School
School of Natural Resources
University of Vermont
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Natural Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	333	N/A
Graduates	55	N/A
Total	388	N/A
Total campus student body	N/A	N/A

2) Geographical place of residence for foreign students: N/A

3) Graduate student specialization for foreign students: N/A

C. School setting: located in Burlington, situated on Lake Champlain with the Green Mountains to the east. Characterized by extensive woodlands, numerous streams and lakes, open farm land, with parks and recreational areas.

D. Facilities: classes and research are conducted in the Center Natural Resources, houses teaching facilities, laboratories equipped for research in tree physiology and genetics, wildlife and fisheries biology, water quality, forest pathology, remote sensing, natural resource planning and outdoor recreation and tourism. Other facilities include a DEC 2060 computer, and supporting geographic mapping and information system.

The University's nine natural areas, three research forests, and several research watersheds, are available for teaching and independent study.

INSTITUTIONAL PROFILE

VIRGINIA POLYTECHNICAL INSTITUTE and STATE UNIVERSITY

School of Forestry and Wildlife Resources

Blacksburg, Virginia 24061

VIRGINIA POLYTECHNICAL INSTITUTE
Blacksburg, Virginia

I. FORESTRY PROGRAM OBJECTIVES

School of Forestry and Wildlife Resources

A. Undergraduate

1. Bachelor of Science/Forest Resource Management:
Stresses the economic and biological considerations necessary for making sound management decisions on problems related to multiple-use of forest land, timber growth, protection, and harvesting.

2. Bachelor of Science/Industrial Forestry:
Designed to provide expertise in the industrial aspects of wood procurement and the management of mechanized forestry operations.

3. Bachelor of Science/Forest Products Utilization:
Gaining knowledge of the properties and uses of wood, phases of wood conversion, business management/quality/cost control as applied to the forest products industries.

4. Bachelor of Science/Forest Products Marketing:
Program designed to provide trained individuals to assume technical and managerial positions in sales, marketing and distribution of forest products.

5. Bachelor of Science/Fisheries Science:
Available to undergraduate students planning to enter graduate study or the research and management fields of commercial and recreational fisheries.

6. Bachelor of Science/Forest Recreation and Park Management:
Courses emphasize the sociological, psychological and policy concepts behind changing patterns of recreationists' behavior, the analytical techniques for determining future requirements for recreational facilities and the principles of integrating recreational planning and development with multiple use forest management.

7. Bachelor of Science/Environmental Conservation:
Students concerned with public issues in the area of conservation, and an exploratory approach to understanding renewable natural resource practices.

8. Bachelor of Science/Wildlife Management:
Integration of forestry and wildlife management, emphasis for students planning on attending graduate school. Students are also encouraged to select courses in the areas of ecology, physiology and nutrition and wildlife systems analysis.

B. Postgraduate

1. Master of Foresty (non-thesis)
2. Master of Science/Forestry (thesis)
3. Doctor of Philosophy

a. Biometrics:
The School of Forestry and Wildlife Resources and the Department of Statistics are cooperating to develop graduate programs for students interested in the application of statistical and computer techniques to renewable natural resources. Specialization in mensuration, statistics and systems analysis.

b. Forest Biology:
The development of an understanding of the interrelationship between forest plants and the physical environment. Specialization is possible in the areas of ecology, genetics, physiology, soils and silviculture.

c. Forest Resource Management Economics:
The management of industrial and public forests or a professional career in teaching and research in forest management and economics. Specialization in industrial forest management, public forest management, forestry economics and the management-economics aspects of forest recreation.

d. Human Factors in Forest Management:
Designed to provide a combination of forestry and social science skills useful either in resource management or in teaching and research. Graduate study is approached in an interdisciplinary manner.

e. Industrial Forestry Operations:
Provides education in the harvesting of forest products at both the Master's and Doctoral levels. Specialization is possible in the evaluation and analysis of any of the major inputs of machines and systems, woods labor, and capitalization.

f. Wood Chemistry:
Is concerned with the utilization of renewable resources by chemical and microbiological means. Oriented towards the study of the basic structure of wood, the composition and properties of the major wood components, and their utility in various processes and products.

g. Wood Mechanics:
Involves the study of the engineering properties of wood and wood products and behavior of wood-based components in engineering structures. Oriented toward material science and engineering.

h. Wood Processing:
Encompasses knowledge concerned with the conversion of a wood. Oriented towards the study of the basic structure, compostion and properties of wood and their relationship to utilization.

i. Industrial Economics and Marketing:
Concerned with application of new technologies and developments to forest products utilization. Courses in utilization, marketing, forest economics, industrial engineering, statistices, and business administration.

j. Other graduate programs available include: Fisheries Science, Wildlife Ecology, Wildlife Physiology and Nutrition.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(SOIL) Forest Soils
(PHYS) Forest Tree Physiology
(MGMT) Forest Management
(HARV) Forest Harvesting
(ECON) Forest Economics
(PROD) Forest Products
(BIOM) Biometrics

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Both formal, undergraduate and postgraduate cooperative education programs are available.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. VPISU/USAID/Nepal: Training nepalese students in setting up university level training programs.
2. VPISU/USAID/Haiti: Reforestation.
3. VPISU/Wood Products Department/Brazil: Harvesting and wood utilization.

C. Fall, 1983, Faculty statistics for School of Forestry and Wildlife Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 51

2. Number of full time forestry faculty on overseas professional assignment:

4 : 5 to 12 weeks abroad in the last 5 years
2 : 27 to 104 weeks abroad in the last 5 years
2 : 104+ weeks abroad in the last 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

0	Africa
0	Middle East
272	Asia & Pacific
58	Latin America
0	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(ECON)	167	Forest Economics
(MGMT)	167	Forest Management
(BIOM)	13	Biometrics/Data Processing
(MENS)	15	Mensuration
(ECOL)	4	Silvics
(SOIL)	4	Forest Soils
(SILV)	4	Silviculture
(ENGR)	12	Forest Engineering
(UTIL)	57	Utilization
(COMM)	130	Publications, Communications (Education)

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

A. Title XII: increase University participation and competence in nutrition/agriculture extension, research to improve feed production.

Offer intensive courses in international language training (French, Portugese, and Spanish).

B. Member of SECID (Southeast Consortium for International Development)

VI. CONTACTS

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C. Dr. Otis F. Hall
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D. Dr. Geza Ifju
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Virginia Polytechnical Institute & State University
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VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) School of Forestry & Wildlife Resources

1) Number of students enrolled

	U.S	Foreign
Undergraduates	446	0
Graduates	122	17
Total	558	17
Total campus student body	21,000	750

2) Geographical place of residence for foreign students:

2 Africa
1 Middle East
8 Asia & Pacific
3 Latin America
2 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 1 Forest Economics
(MGMT) 1 Forest Management
(MENS) 1 Mensuration
(BIOM) 1 Biometrics
(ECOL) 1 Silvics
(WLMG) 1 Wildlife Management
(ENGR) 2 Forest Engineering
(UTIL) 8 Utilization

C. School setting: Blacksburg is a small town with a population of 30,000 located 2,100 feet above sea level in a largely forested area of the Appalachian Mountains. A 1,200 acre school forest and the Jefferson National Forest, as well as rivers and lakes, provide ample opportunities both for research and recreation. The climate is mild, with neither extremes of summer heat and humidity associated with the South, nor the rigorous winters of the North.

D. Facilities: computing center equipped with IBM and processors. There is a main library on the campus with 1,300,000 volumes, 12,000 periodicals, and seating facilities for 1,800 students. Laboratories for basic studies in physiology, nutrition, and genetics of forest trees, fish, and wildlife. Research equipment includes refrigerated centrifuges, ultracentrifuge, liquid scintillation counter, atomic absorption unit and growth chambers. Six laboratories are maintained for studying wood identification, microtechniques, wood chemistry, wood physics, and wood mechanics. Within the microtechnique laboratory is housed a scanning electron microscope complete. Testing machines are available for mechanical property determinations. The Forest Products Center consists of two laboratory buildings with a total of 20,000 sq. ft. space and houses the pallet research laboratories, a modern sawmill, an experimental dry kiln, and an advanced testing facility.

INSTITUTIONAL PROFILE

WASHINGTON STATE UNIVERSITY

Department of Forestry & Range Management

Pullman, Washington 99164

WASHINGTON STATE UNIVERSITY
Pullman, Washington

I. FORESTRY CURRICULUM OPTIONS

Department of Forestry and Range Management

A. Undergraduate

1. Bachelor of Science/Forest Management:
At the beginning of the junior year (having completed the core requirements) students in forest management are expected to select one of four areas of specialized study: Management; Science; Wildlife Habitat Management; and directed studies.

Bachelor of Science/Range Management:
By the start of the junior year students in range management are expected to have selected one of four areas of specialized study: Management; Science; Wildlife Habitat Management; and directed studies.

B. Postgraduate

1. Master of Science/Forest and Range Management:

Both thesis and non-thesis programs are available. Areas in which the graduate student may concentrate include Forest Management; Wildlife Management; Forest Economics; Forest Ecology; Forest Entomology; Forest Pathology; Mensuration; Wildland Recreation; Watershed Management and Range Management.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECOL) Forest Ecology
(ENTO) Forest Entomology
(RAMG) Range Management

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Office of International Programs: Administration of Participant Training for overseas projects; administration of International Exchange Awards; administering student educational exchanges between Washington State University and foreign universities; acting as a clearinghouse for interested WSU staff and students on matters relating to study and teaching abroad, including Fulbright awards. The office works with and administers programs of foreign student sponsoring agencies such as African-American Institute (AAI), Latin American Acholarship Program of American Universities (LASPAU), Institute of International Education (IIE), Agency for International Development (AID), United States Department of Agriculture (USDA), and the Food and Agriculture Organization of the U.N. (FAO).

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

The school is developing plans to teach a class in international range management.

B. Formal/informal linkages between the School and foreign institutions:

International Laboratory/Kenya
Kenya Veterinary Department/Kenya
Agricultural Research/Sudan
Pan America Health Organization/Latin America
University of Dar Es Sala/Tanzania
Consortium of Eastern Islands/Indonsia

C. Fall, 1982, Faculty statistics for Department of Forestry & Range management:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 21

2. Number of full time forestry faculty on overseas professional assignment:

   1 : 5 to 12 weeks abroad in the past 5 years
   2 : 13 to 26 weeks abroad in the past 5 years
   4 : 27 to 104 weeks abroad in the past 5 years
   2 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   381 Africa
   0 Middle East
   52 Asia & Pacific
   0 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (RAMG) 381 Range Management
   (SILV) 52 Silviculture
   (ENTO) 17 Forest Entomology
   (PATH) 26 Forest Pathology
   (UTIL) 1 Utilization
   (PARK) 32 Forest Recreation

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   Middle East/Arabic taught to project staff
   East Africa/Strong Historical Involvement: French Training

V. PROGRAM ASSOCIATIONS

Title XII: Washington State University is requesting a "Strengthening Grant" to: increase faculty invovlvement in long term LDC technical assistance activities; improve the understanding of developing country needs in food, nutrition and rural development; focus on extension research, and training and related activities on problems of food and nutrition.

MOU: A Memorandum of Understanding between USAID and Washington State University: This is a formal agreement between WSU and USAID to improve its international development efforts in four main service areas: (1) institutional development; (2) agricultural production; (3) land and water-use planning, management and conservation; and (4) food and agriculture policy.

VI. CONTACTS

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B. James B. Henson, Director
International Program Development Office
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C. Carl J. Goebel, Professor
Department of Forestry and Range Management
Washington State University
Pullman, WA 99163
Telephone: (509) 335-4906

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1983) College of Environmental Science and Forestry

1) Number of students enrolled	U.S.	Foreign
Undergraduates	206	8
Graduates	36	5
Total	242	13
Total campus student body	16,403	684

2) Geographical place of residence for foreign students:

2 Africa
1 Middle East
2 Asia & Pacific
1 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(MGMT) 5 Forest Management

C. School setting: Washington State University is located in Pullman in the southeastern part of the state.

D. Facilities: the department has field and laboratory facilities, greenhouses near the edge of campus and an 11,000-acre multiple-use research center. The Washington State University Computing Center offers a support facility used by most students.

INSTITUTIONAL PROFILE

UNIVERSITY OF WASHINGTON

College of Forest Resources, AR-10

Seattle, Washington 98105

UNIVERSITY OF WASHINGTON
Seattle, Washington

I. FORESTRY CURRICULUM OPTIONS

College of Forest Resources

A. Undergraduate

1. Bachelor of Science/Forest Resources:

   a. Forest Resource Management
      - Forest Land Use
      - Timber Management
      - Wildland Recreation
      - Silviculture and Protection
      - Wildlife Conservation
      - Urban Forestry
   b. Pulp and Paper Science
   c. Forest Engineering
   d. Wood Science and Technology
      - Industrial Engineering
      - Science
      - Business
      - Forestry

B. Postgraduate

1. Master of Forest Resources:
   To acquire competence in a specific subject area of forest resources. Course work may be in forest resources and in appropriate natural and social sciences. Both thesis and nonthesis options are available.

2. Master of Science Degree:
   The is often precursory to the Doctor of Philosophy degree. Both thesis and nonthesis options are available.

3. Doctor of Philosophy:
   The Doctor of Philosophy degree may be preceded by baccalaureate education, either in forest resources or in another discipline. The program comprises an appropriate selection of courses in forest resources and in the related natural and social sciences.

II. FORESTRY ACADEMIC CONCENTRATION IN FORESTRY

(PROD) Forest Industries Management: Production Scheduling, Quality Control, Industrial Management.

(BIOM) Quantitative Resource Management: Statisitics, Operations Research, Biometrics, Computer Modeling.

(ECON) Economics and Finance. Economics of Forest Management, Economics of Forest Industries, Investment Analysis.

(SOCL) Forest and Natural Resources Sociology: Human Behaviour, Community Studies, Social Science Research Methods, Social Forestry.

(ENTO) Forest Entomology: Flight Behaviour of Bark Beetles, Host Selection Behaviour of Forest Insects, Tropical Forest Entomology.

(PATH) Forest Pathology: Process of Wood Decay, Investigation of Forest Disease.

(ECOL) Forest Ecology: Plant Ecology, Community Ecology.

(TRIM) Forest Genetics: Concepts of Quantitative and Population Genetics to Forest Tree Populations, Reproductive Biology of Forest Trees.

(PHYS) Tree Physiology: Tree Nutrition, Root Physiology.

(SOIL) Forest Soils: Mineral Cycling, Soil Microbiology, Pedogenesis.

(PULP) Pulp and Paper Technology: Pulping Chemistry and Processes, Fiber and Polymer Science, Pollution Abatement Technology.

(ENGR) Forest Engineering: Mechanical Logging Systems Analysis, Road Design, Construction, Logging Planning and Cost Analysis.

(UTIL) Wood Utilization and Technology: Wood Products Processing.

(HORT) Urban Horticulture.

(SILV) Silviculture: Manipulation of Forest Vegetation for a Variety of Social Benefits.

(HYDR)
(WASH) Forest Hydrology and Meteorology: Water Quality, Watershed Management, Disposition and Movement of Water in Forest Ecosystems.

(LAUS)
(POLY)
(PARK) Land Use Planning and Resource Policy: Natural Resource Systems Planning and Analysis, Public Administration, Natural Resources Policy and Law, Recreation Resource Planning.

(MGMT)
(REMS)
(MENS)
(FIRE)
(SILV)
(WLMG)
(RAMG) Forest Resource Management: Aerial Photo Interpretation, Forest Inventory & Mensuration, Fire Management, Tiber Production, Siliculture, Wildlife and Range Habitat Management, Watershed Management.

Resource and Environmental Interpretation: Environmental Interpretation, Forest and Recreation Interpretation.

Outdoor Recreation Management: Park Management, Wilderness Management, Recreation Area Planning and Design.

Ecosystem Analysis: Production and Energy Cycling, Ecosystem Modeling, Dendrochronology.

Wildlife Science: Biology and Conservation of Birds and Mammals, Effect of Forest Management on Birds and Mammals.

III. SUPPORTING RESEARCH AND EDUCATIONAL OPPORTUNITIES

A. Midcareer Education

A program has been established in the college for professionals in the field who, on a part- or full-time basis, take graduate work at midcareer to prepare themselves for new or broader resoponsibilities. Under this program, courses can be taught in a more flexible time arrangement to meet the constraints of participants and can be tailored to specific career needs.

B. Cooperative Academic Programs with the School of International Studies

These programs have been established to permit students pursuing a Masters of Science in Forest Resources to obtain a field of specialization in International Studies or joint degrees in Forest Resources and Interntional Studies; students may also pursue a Masters of Arts in International Studies with a major field in some aspect of Forest Resources.

C. The Institute of Forest Resources

The Institute of Forest Resources is the research branch of the College of Forest Resources coordinates cooperatively sponsored research programs with federal, state, and private agencies.

Research related to resource management studies is presently conducted in four different program areas: (1) management and productivity of forest stands, (2) multi-resource management and planning, (3) forest protection in resource management, harvesting, and wood processing, 4) wildlife management, 5) impacts on forest ecosystems and biological processes, 6) forest policy and decision-making in forest management and forest industry.

D. Involvement in Forest Resources of Other Countries

This is accomplished through an ever-increasing volume of commerce and intellectual and socal interchange. This international perspective is provided through programs of study and research related to forest resources and their products in other lands with respect to biology management, economics, manufacture, legislation, administration, and international trade.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:

1. Forest Biology
   Projects in the area of forest biology have included geological and soil surveys, forest regeneration, forest nutrition studies, forest pathology, forest entomology, and forest genetics.

2. Forest Management
   Forest management studies have included forest surveys, inventory analysis, forest economics, forest sociology, and forestry biometry.

3. International Trade in Wood and Wood Fiber Products
   A major new program in the College that will provide graduate education, research opportunities, and public service. The College has established formal ties with the School of International Studies, School of Business, and Law School to provide a broad academic base for studies covering trade policy, wood production and distribution technologies, and the economics of wood trade, as well as for the development of a comprehensive trade data base. The program focuses on global patterns of wood products trade, but has special expertise on Pacific Rim trading partners. Close ties with interest parties in other countries are being developed, primarily through the education of students from these countries.

4. Wood Science and Technology
   Stidies in the field include improving utilization of the heterogeneous tropical forests, development of low cost housing materials, improving adhesives, the study of the suitability of tropical species for such board products as oriented strand board, development of appropriate technology for tropical wood utilization.

5. Pulp and Paper Engineering
   Studies in this field include fiber characterization and pulping characteristics of selected hybrid hardwoods, recycling methods for waste paper, the suitability of non-tree species such as guayule, bamboo and jute for pulp and paper purposes, and the study of extractives from wood, bark and leaves.

6. Forest Engineering
   Forest engineering studies encompass the fields of logging engineering, forest transport networks, hydrologic analyses, forest fire systems, and forest road construction.

7. Quantitative Methods in Forestry
   This area includes the development of mathematical models to simulate growth and utilization of tropical forests; the emphasis is on the use of microcomputers usable and available in tropical countries.

B. Formal/informal linkages between the School and foreign institutions:

1. University of Washington/Kasetsart University in Thailand: training of faculty, short courses in computers, the development of computer simulation models for timber management and utilization, joint research of continuous inventory plots, remote sensing.

2. University of Washington/Bogor University in Indonesia: training of faculty and research in comparative ecosystems, forest policy and forest product flows.

3. University of Washington/COHDEFOR Honduras: offering of a series of short courses in forest management, road constructon, harvesting techniques and the use of aerial photos joint research in growth and yield.

4. University of Washington/University of Vienna, Austria: joint research in forest policy analysis, pulp and paper and the development and use of qualitative models.

5. University of Washington/FAO, Rome, Italy: a study in the utilization of tropical hardwoods and the development of the forest product industry, and a methodology for studying the local socioeconomic impacts of a broad spectrum of forest industries.

6. Other linkages with foreign institutions:

   a. University of Vienna, Austria
   b. Kasetsart University, Bangkok, Thailand
   c. Forestry School of Siquetipeque, Honduras
   d. Forest Ministry of China, Nanjing Technological College
   e. University of Medellin, Columbia
   f. National University of Chile, Santiago, Chile
   g. Through UNIFOR with University Austral, Valdivia, Chile
   h. University of Bogor, Indonesia

C. Fall, 1982, Faculty dtatistics for College of Forest Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 52

2. Number of full time forestry faculty on overseas professional assignment:

   5 : 5 to 12 weeks abroad in the past 5 years
   3 : 13 to 26 weeks abroad in the past 5 years
   4 : 27 to 104 weeks abroad in the past 5 years
   1 : 104+ weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

41	Africa
72	Middle East
85	Asia & Pacific
134	Latin America
237	Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(POLY)	10	Forest Policy
(ECON)	22	Forest Economics
(BIOM)	34	Biometrics
(FORY)	28	Silvics
(ECOL)	20	Ecology
(BIOL)	20	Biology
(ENTO)	52	Forest Entomology
(WASH)	6	Watershed Management
(WLMG)	4	Wildlife Management
(RAMG)	5	Range Management
(ENGR)	25	Forest Engineering
(UTIL)	46	Utilization
(TRIM)	7	Forest Genetics
(INTL)	260	International Forestry

D. The School plans on expanding its international forestry program through:

1. Further developing its major program in International Trade including a Masters in this area (with The School of International Studies and the Business School), an industry supported research program, and a series of symposia and short courses.

2. Aiming to develop a larger program in assistance to the LDC's working with FAO, the World Bank, USAID and the IDB. Several FAO and USAID funded faculty and research projects are operative at present, ranging from Honduras, Ecuador, Rome and Bangladesh.

V. PROGRAM ASSOCIATIONS

1. Active member of UNIFOR (Universities for International Forestry).

2. Title XII money: work in India in the area of biometrics.

3. Several strengthening grants from the forest products industry in the area of international trade.

4. BIFAD (Bureau of International Food & Agricultural Development).

VI. CONTACTS

A. Dr. David B. Thorud, Dean
College of Forest Resources AR-10
University of Washington
Seattle, WA 98195
Telephone: (206) 545-1928

B. Dr. James S. Bethel
Director, Center for International Studies
College of Forest Resources, AR-10
University of Washington
Seattle, WA 98195
Telephone: (206) 543-6696

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) College of Forest Resources

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	228	2
Graduates	186	38
Total	414	40
Total campus student body	34,308	1,382

2) Geographical place of residence for foreign students:

2 Africa
2 Middle East
26 Asia & Pacific
5 Latin America
7 Non-LDC's

3) Graduate student specialization for foreign students:

(LAUS) 3 Land Use Assessment/Planning
(ECON) 2 Forest Economics
(MGMT) 5 Forest Management
(MENS) 4 Mensuration/Inventory
(SILV) 1 Silviculture
(ECOL) 1 Forest Ecology
(BIOL) 1 Forest Biology
(SOIL) 4 Forest Soils
(PATH) 3 Forest Pathology
(WASH) 1 Watershed Management
(WLMG) 2 Wildlife Management
(ENGR) 2 Forest Engineering
(UTIL) 13 Wood Utilization
(PARK) 1 Recreation/National Parks

C. School setting: the campus is a part of the City of Seattle, Washington. To the east lays the Cascade Mountains, to the west, the Puget Sound and the Olympic Mountains. Summer temperatures average 70's F.; winter temperatures average 40's F.

D. Facilities: the Forest Resources library, houses twenty-six thousand bound volumes and thirty-three thousand pamphlets, reports, and monographs, twenty-five hundred periodicals and indexes to current literature in forestry and supporting sciences and material published in the fields of forestry and pulp and paper technology. The herbarium supplements forest resources students' fieldwork in dendrology. Containing representative plant material from all parts of the United States, the collection includes dried, mounted specimens of shrubs, hardwood trees, and conifers. Fruit specimens and a complete cone collection of American conifers are maintained apart from the mounted collection.

The research tools include: optical equipment, electronic instrumentation for a wide variety of uses, gas chromatographs, spectrophotometers, physical test equipment, and an electron microscope facility. Laboratories are designed to study soil chemistry and soil physics, hydrology, polymer chemistry, meteorology, tree physiology, genetics, wood and extractives chemistry, physics of fibrous composites, applied mechanics, wood process technology, pathology, entomology, recreation, horticultural physiology, and horticultural plant materials.

The college field facilities include four major forested areas covering nearly ten thousand acres, an arboretum, two reserves, and three cooperative research centers and stations.

The arboretum, a two-hundred-acre collection of trees and shrubs growing in a naturalistic setting contains some fifty-two hundred different kinds of woody plants that are available for research and academic study.

INSITUTIONAL PROFILE

WEST VIRGINIA UNIVERSITY

Division of Forestry

Morgantown, West Virginia 26506

WEST VIRGINIA UNIVERSITY
Morgantown, West Virginia

I. FORESTRY CURRICULUM OPTIONS

College of Agriculture and Forestry

Divided into five divisions of study - Forestry Animal and Veterinary Sciences, Plant and Soil Science, Resource Management, and International Agriculture and Forestry.

A. Undergraduate

1. Bachelor of Science/Forestry, options in:
   a. Forest Resource Management: To meet the need for trained professionals to manage forest resources for recreation, watershed protection and aesthetics.
   b. Wood Industries: Training in procurement, management, production, quality control, marketing, research and development with both primary and secondary wood product industries.

2. Bachelor of Science/Resource Management:
   To provide the student with the opportunity to the necessary background in mathematics, statistics, computer science, economic theory and modern concepts of science.

3. Bachelor of Science/Agriculture:
   To develop interest areas in agronomy, horticulture, soil science, environmental protection, or basic science to prepare for positions in corp production, soil conservation, pedology and soil survey, land reclamation, revegetation, land management/classification, fertilizer use, weed control, insect and disease control, plant breeding, and farm management.

4. Bachelor of Science/Recreation:
   To prepare students for recreation and park responsibilities, commercial recreation enterprises, private and voluntary agencies, and land managing agencies. Emphasis in administration and planning, interpretation, program leadership, therapeutic recreation or wildlands management.

5. Bachelor of Science/Wildlife Resources:
   To prepare students for positions as game and fish biologists, wildlife managers, planners of wildlife conservation programs.

6. Summer Field Studies:
   Consists of two consecutive summer sessions, and is designed for students who have completed their junior year. Training in forest surveying, timber estimating, photo interpretation, forest management, and forest recreation. Field trip to

wood-using industries and study of northern hardwood, spruce, pine management, and a one week trip to observe forestry in the southern U.S. Wood Industry Field Practice: in surveying and mensuration, observation of industrial practices. Recreation Internship: supervised professional field work.

B. Postgraduate

1. Master of Science/Forestry:

Candidates for the degree may major in forest biometry, forest ecology, forest economics, forest genetics, forest hydrology, forest meteorology, forest management, silviculture, or wood industry.

2. Master of Science:

The Division of Forestry offers programs for students who wish to major in a forestry-related field (e.g., recreation, wildlife management), but do not wish to pursue the specific Master of Science in Forestry route. Non-thesis degrees available.

Forest Resources Science

1. Doctor of Philosophy:

A candidate may choose as the major field of study forest science, wood science, or wildlife management. The research work for the doctoral dissertation must present an original contribution to the field of forest resources science.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(SILV) Hardwood Silviculture
(BIOM) Forest Biometry
(UTIL) Utilization
(ECOL) Forest Ecology
(ECON) Forest Economics
(TRIM) Forest Genetics
(MGMT) Forest Management

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Division of Agriculture, Foresty, and Community Development: Six structured program units: Animal Sciences, Plant Sciences, Forestry, Resource Management, Community Development, and Energy. Each program unit conducts educational programs and provides technical assistance to enhance rural development in West Virginia.

Areas of specific interest to the division in pursuit of its educational objectives are: (1) improvement of animal, crop, and horticultural production; (2) improvement of pasture and forage production levels; (3) proper utilization of land and natural resources; (4) economical weed and pest control techniques; (5) forestry production, harvesting, and utilization schemes; (6) maintenance of air and water quality; (7) expansion of animal and solid-waste management programs; (8) energy conservation; and (9) improved use of community resouces in rural development programs.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. WVU/NCA & T/USAID/Tanzania: Farmer training project.

C. Fall, 1982, Faculty statistics for the Division of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 26

2. Number of full time forestry faculty of overseas professional assignment:

   1 : 4 weeks abroad in the past 5 years
   1 : 5 to 12 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   3 Africa
   0 Middle East
   0 Asia & Pacific
   0 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

   (WLMG) 4 Wildlife Management
   (TRIM) 8 Forest Genetics

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections: N/A

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. Dale Zinn, Dean
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West Virginia University
Morgantown, WV 26506
Telephone: (304) 293-2395

B. Dr. Robert Maxwell
International Programs
Division of Forestry, 1170 AS
West Virginia University
Morgantown, WV 26506
Telephone: (304) 293-2041

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) Division of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	521	5
Graduates	48	5
Total	569	10
Total campus student body	20,439	898

2) Geographical place of residence for foreign students:

4 Africa
0 Middle East
1 Asia & Pacific
4 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(LAUS) 1 Land Use Assessment, Planning
(ECON) 2 Forest Economics
(WASH) 1 Watershed Management
(UTIL) 1 Utilization
(PARK) 1 Recreation

C. School setting: the campus in Morgantown (pop. 45,000) contains 104 buildings on 799 acres. Situated on the rugged terrain of the Appalachian highlands (altitude 800-1,150 feet). The areas temperate climate is marked by four distinct seasons of about equal length; average rainfall 40 inches per year.

D. Facilities: the college's faculty and staff are located in three major buildings on the campus, on four Morgantown area farms and a nearby forest. Computer facilities are available to students. The main library contains over one million books.

INSTITUTIONAL PROFILE

UNIVERSITY OF WISCONSIN - MADISON

Department of Forestry

Madison, Wisconsin 53706

UNIVERSITY OF WISCONSIN - MADISON
Madison, Wisconsin

I. FORESTRY CURRICULUM OPTIONS

School of Natural Resources

Department of Forestry

A. Undergraduate

1. Bachelor of Science/Forest Science:
Emphasis in the natural and social sciences in the first two years, core forestry courses in the junior/senior year, with field experience and sufficient elective within the forest relm: forest soils, forest biology, wood and fiber science, forest policy and urban forestry.

2. Bachelor of Science/Recreation Resource Management:
(Three sequences) The sequence in the forestry department focuses on the management of forests, parks, reserves, and other designated areas. Other sequences focuses on leisure related issues and concerns of people in the present and future society. In the Department of Continuing and Adult Education and Recreation Planning and Development the focus is on planning and programming facility development and use; development in the public and private sector and environmental impact considerations.

College of Engineering
College of Agricultural and Life Sciences

1. Bachelor of Science/Agricultural Engineering:
Granted jointly by the Colleges of Engineering and Agricultural and Life Sciences. Under this major it is possible to specialize in such areas as Conservation Engineering; Aquacultural Engineering; Waste Management Engineering; or Forest Engineering. Within the Forest Engineering specialty it is possible to further specialize in either Forest Conservation or Forest Mechanization Engineering.

A program in Agricultural Mechanization and Management is also available. Under this program it is possible to combine the interests of mechanical technology, business and natural resource management.

Department of Agronomy

1. Bachelor of Science/Agronomy:
   This resource curriculum is designed to give a student basic understanding of plant-soil-water relationships with the opportunity to choose a wide spectrum of courses in wildlife ecology, geology, forestry, human relations, urban planning, and related fields.

Department of Wildlife Ecology

1. Bachelor of Science/Natural Resources:
   Students learn to understand the interactions of soil, water, plants and animals. Attention is directed toward exploring, the manipulation of these natural resources to maintain a level of wildlife population that is in the best interest of all concerned.

Department of Soil Science

1. Bachelor of Science/Natural Resources:
   The analysis of soil resources to assist land use planning, land taxation, land management, water conservation, land and water programming, and waste disposal; analyzing the productive soils to be preserved; understanding the interaction of soil, water, and plants; dealing with erosion, sedimentation, soil and water conservation.

   Other programs available within the curriculum of Natural Resource Management: Agricultural Education; Extension Education; Bacteriology; Genetics; Horticulture; Landscape Architecture; Poultry Science; Resource Communications; Resource Economics; and Resource Sociology.

B. Postgraduate

Department of Forestry

1. Master of Science:
2. Doctor of Philosophy:

   a. Forest Biology: Genetics, Tree Physiology, Forest Ecology, Forest Ecosystems.
   b. Forest Management: Forest Biometrics, Silviculture, Urban Forestry, Forest Management and Economics, Forest Policy.
   c. Wood and Fiber Science
   d. Recreation Area Management
   e. Environmental Interpretation

College of Engineering and Life Sciences

1. Master of Science:
2. Doctor of Philosophy:

These programs are intended to increase the depth of understanding of engineering as applied to agriculture and natural resources.

Department of Agronomy

1. Master of Science:
2. Doctor of Philosophy:

Research oriented, includes nitrogen utilization within the plant; physiological pathways relative to nutrient uptake; herbicide movement in the soil and translocation; mode of action of herbicides; influence of soil moisture, light intensity and temperature; species response to defoliation; physiology of winter hardiness; rate for fertilizer uptake, and fertilizer movement in relation to soil type and placement in the soil.

Department of Wildlife Ecology

1. Master of Science:
2. Doctor of Philosophy:

The Department offers gradute training in the dynamics and ecology of bird and mammal populations and in wildlife management and conservation.

Department of Soil Science

Postgraduate education in Classification and Morphology; Forest Soils; Soil Genesis; Soil Physics; Soil Chemistry; Soil Biochemistry and Microbiology; Soil Mineralology; and Soil Fertility/Plant Nutrition. The importance of soils in the environmental pollution, grounds management, soil conservation, rural and urban planning, and waste disposal are integrated into the department's course offerings and research programs.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(ECON) Forest Economics
(MGMT) Management and Policy
(ECOL) Forest Ecosystems
(BIOL) Forest Biology, Physiology
(TRIM) Forest Genetics, Tree Improvement
(PLSC) Wood Chemistry, Fiber Science, Wood Technology
(REMS) Remote Sensing
(BIOM) Biometry
(SILV) Silviculture
(OPRE) Operations Research

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

Land Tenure Center: provides an academic focus to students who wish to pursue advance study of development issues within an interdisciplinary framework: LTC administers the Ph.D. in Development Studies program. Students from as many as twenty-two foreign countries and the U.S. have enrolled. Several hundred students in other degree programs have been asscciated with LTC over the years.

Short-term, non-degree training programs can be developed to meet individual and group needs. Individual programs have been arranged for students from, for example, Ethiopia and Nepal. A group of trainees came from Turkey, and a large group program is being developed for Nicaragua. The Nicaraguan program will combine classroom work in Spanish at the Land Tenure Center, with actual field research in Nicaragua.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry: N/A

B. Formal/informal linkages between the School and foreign institutions:

1. MUCIA (Midwest Universities Consortium for International Activities):
   Indonesia
   Nigeria

2. FAO (Food and Agricultural Organization):
   Rome
   Indonesia

C. Fall, 1985, Faculty statistics for the Department of Forestry:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 15

2. Number of full time forestry faculty of overseas professional assignment:

   2 : 5 to 12 weeks abroad in the past 5 years
   1 : 13 to 26 weeks abroad in the past 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   2 Africa
   1 Middle East
   8 Asia & Pacific
   2 Latin America
   0 Non LDC's

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	2	Land Assessment, Planning
(POLY)	1	Forest Policy
(ECON)	5	Forest Economics
(MGMT)	3	Forest Management
(INTL)	11	International Forestry
(UTIL)	12	Utilization
(NURS)	3	Nursery Management
(PARK)	2	Forest Recreation
(TRIM)	2	Forest Genetics
(MENS)	1	Mensuration
(FORY)	3	Silvics
(ECOL)	3	Forest Ecology

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. Stephen C. Smith, Dean
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University of Wisconsin - Madison
240 Agriculture Hall
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B. Dr. Kenneth H. Shapiro, Director
International Agricultural Programs
240 Agriculture Hall
University of Wisconsin - Madison
Madison, WI 53706
Telephone: (608) 262-3673

C. Dr. Peter P. Dorner, Dean
International Programs and Studies
University of Wisconsin - Madison
Room 1410 Van Hise Hall
Madison, WI 53706
Telephone: (608) 262-2851

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) Department of Forestry

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	91	0
Graduates	46	14
Total	136	14
Total campus student body	42,921	2,200

2) Geographical place of residence for foreign students:

0 Africa
3 Middle East
1 Asia & Pacific
1 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

(ECON) 4 Forest Economics
(MGMT) 2 Forest Management
(FORY) 1 Silvics
(ECOL) 1 Forest Ecology
(COMM) 1 Publications, Communications
(UTIL) 4 Utilization
(TRIM) 1 Forest Genetics

C. School setting: located on Lake Mendota surrounded by scenic rolling hills. The average summer temperature is 65 degrees and the average winter temperature is 30 degrees. The average precipitation per year is 30.16 inches.

D. Facilities: an electrophoretic lab is available for genetics research, and a autoanalyzer system for automated measurement of nutrient content in plants, soils and water. Other analytical equipment is available in the Soils Department and at the State Health and Soils Testing Laboratories. Associated facilities on campus include the Biotron for contolled-environment research and the U.S. Forest Products Laboratory (USDA Forest Service) which carries on much research on decomposition of wood and other forest residues.

The Forestry Department's computer, has a wide variety of software packages including several statistical and simulation programs. The system is available to graduate students on a nearly unlimited, no-cost basis.

INSTITUTIONAL PROFILE

UNIVERSITY OF WISCONSIN - STEVENS POINT

College of Natural Resources

Stevens Point, Wisconsin 54481

UNIVERSITY OF WICSONSIN/STEVENS POINT
Stevens Point, Wisconsin

I. FORESTRY CURRICULUM OPTIONS

College of Natural Resources

A. Undergraduate

1. Bachelor of Science/Forestry:
   Forestry and the other resource disciplines are closely integrated to provide a background for forest ecosystem management with emphasis in forest management, forest administration, urban forestry, and forest recreation.

2. Bachelor of Science/Resource Management:
   A concentration in one of the following fields is strongly recommended: park management and outdoor recreation, land use planning, environmental law enforcement, or environmental outdoor education.

3. Bachelor of Science/Soil Science:
   Emphasizes the basic sciences to provide an understanding of soil properties and processes. This curriculum meets the requirements for a soil scientist as set forth by the Soil Science Society of America.

4. Bachelor of Science/Water Resources:
   This curriculum offers options in fisheries, limnology, water chemistry, and watershed management.

5. Bachelor of Science/Paper Science:
   Designed to develop an individual versed in the physical and engineering sciences and the interrelationships among these disciplines.

6. Bachelor of Science/Wildlife Management:
   This curriculum emphasizes the management of game species for consumptive and non-consumptive uses. The major integrates the principles of biological, physiological and environmental management of game populations.

7. Minor studies are offered in Forestry, Soil Science, Resource Management, Outdoor Education, Environmental Law Enforcement, Water Resources, Wildlife Management and Environmental Education/Interpretation.

   a. A six week summer camp session is required of all College of Natural Resources majors (except Paper Science) on completion of their sophomore year.

b. Teacher Certification:
Students are able to qualify for certification to teach at the secondary school level, with a major offered in the College of Natural Resources.

B. Postgraduate

1. Master of Science/Natural Resources:

Encompasses the disciplines of forestry, water resources, wildlife and fisheries, soil science, and resource management. Emphasis in the graduate program directed toward environmental problems and their solution. Students seeking the MS degree need not have an undergraduate major in one of the Natural Resource specialties.

II. AREAS OF ACADEMIC CONCENTRATION IN FORESTRY

(URBN) Urban Forestry
(PARK) Forest Recreation
(MGMT) Forest Based Resource Management

III. SUPPORTIVE RESEARCH AND EDUCATIONAL OPPORTUNITIES

1. A cooperative fisheries unit staffed by the U.S. Fish & Wildlife Service is available for study and research purposes on campus.

2. Internships are available for majors and minors in all areas of academic specialization.

3. Cooperative educational opportunities are available with the USDA Forest Service and the U.S. Department of the Interior, National Park Service and U.S. Fish and Wildlife Service.

IV. INSTITUTION'S INVOLVEMENT IN INTERNATIONAL ACTIVITIES

A. Programs/courses taught in international forestry:
The College of Natural Resource, provides field experience and training in integrated resource management: International Environmental Studies Seminar in West Germany and Poland. Studies are offered in soil site classification, silviculture programs, wildlife ecology and hunting.

B. Formal/informal linkages between the School and foreign institutions: N/A

C. Fall, 1982, Faculty statistics for College of Natural Resources:

1. Number of full time (9-month and 12-month) teaching/research forestry faculty: 37

2. Number of full time forestry faculty on overseas professional assignment:

   7 : 5 to 12 weeks abroad in the last 5 years
   1 : 13 to 26 weeks abroad in the last 5 years
   1 : 27 to 104 weeks abroad in the last 5 years

3. Forestry faculty by geographical place of assignment (in aggregated person weeks):

   0 Africa
   0 Middle East
   0 Asia & Pacific
   0 Latin America
   98 (Non LDC's) Europe

4. Type of overseas technical (specialization) assignments (in aggregated person weeks):

(LAUS)	10	Land Use Assessment/Planning
(SOCL)	2	Sociology/Land Tenure
(ECON)	5	Forest Economics
(MGMT)	10	Forest Management
(MENS)	7	Mensuration/Inventory
(REMS)	2	Photogammetry/Remote Sensing
(SILV)	15	Silviculture
(ECOL)	5	Forest Ecology
(BIOL)	5	Forest Biology
(SOIL)	5	Forest Soils
(WASH)	4	Watershed Management
(WLMG)	10	Wildlife Management
(FISH)	5	Fisheries Management
(ENGR)	5	Forest Engineering
(PARK)	5	Forest Recreation/National Parks
(URBN)	3	Urban Forestry

5. Faculty members presently engaged in formal language training for the purpose of strengthening international connections:

   1 : Language not mentioned

V. PROGRAM ASSOCIATIONS

N/A

VI. CONTACTS

A. Dr. Daniel O. Trainer, Dean
College of Natural Resources
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Stevens Point, WI 54481
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B. Dr. Helen Corneli
Director of International Programs
College of Natural Resources
University of Wisconsin-Stevens Point
Stevens Point, WI 54481
Telephone: (715) 346-3757

VII. ADDITIONAL INFORMATION

A. Accreditation: Society of American Foresters

B. Student body profile (Fall, 1982) College of Natural Resources:

1) Number of students enrolled

	U.S.	Foreign
Undergraduates	1,703	11
Graduates	52	2
Total	1,755	13
Total campus student body	8,871	196

2) Geographical place of residence for foreign students:

1 Africa
0 Middle East
1 Asia & Pacific
0 Latin America
0 Non LDC's

3) Graduate student specialization for foreign students:

N/A

C. School setting: Stevens Point, (pop. 24,000) is a metropolitan area in central Wisconsin, 110 miles north of the City of Madison. Over 40,000 acres of private, country, state and university owned lands offer a wide variety of flora and fauna within 20 miles of the campus. Three streams, including the Wisconsin River, flow through the city.

D. Facilities: an area of more than 185 acres on the north campus, with an environmental laboratory containing wetlands, recreational areas and a 28 acre lake. The multi-media Center for Learning Resources contains a collection of books and journals as well as audio-visual and self instructional material. A Water Resources Laboratory provides opportunities for aquatic investigation. The Central Wisconsin Environmental Station on Sunset Lake offers opportunities for practical experience in the areas of environmental education, and interpretation.

A List of SAF Candidate Institutions for SAF Accreditation

The following institutions offer B.S. and advanced professional forestry degrees. They have not been accredited by SAF at this time (1983), however their credentials have been submitted for accreditation.

Arkansas

- University of Arkansas at Monticello
  Department of Forest Resources
  Monticello, AR 71655

  A. Curriculum programs in:
     1. Bachelor of Science/Forestry
     2. Bachelor of Science/Wildlife and Fisheries

California

- California Polytechnic State University
  Natural Resources Management Department
  San Luis Obispo, CA 93407

  A. Curriculum programs in:
     1. Forest Management
     2. Environmental Services
     3. Fish & Wildlife Management
     4. Resource Recreation Planning
     5. Resource Analysis
     6. Urban Forestry
     7. Fire Management
     8. Watershed Management
     9. Environmental Interpretation
     10. Chaparral-Hardwood Management

Louisiana

- Louisiana Tech University
  School of Forestry
  College of Life Sciences
  Ruston, LA 71272

  A. Curriculum programs in:
     Bachelor of Science
     1. General
     2. Business
     3. Mechanization
     4. Recreation
     5. Wildlife
     6. Wood Utilization

- McNeese State University
  Department of Agriculture
  College of Science
  Lake Charles, LA 70609

  A. Two-year Forest Technology Curriculum (Associate Science)
  B. The Department of Agriculture offers a minor in Forestry, emphasis on Production and Utilization.

Nevada

- University of Nevada
  Range, Wildlife & Forestry
  1000 Valley Road
  Reno, NV 89512

  A. Curriculum programs in:
     1. Forestry
     2. Watershed Management
     3. Range Management
     4. Wildlife Management

New Jersey

- Cook College Rutgers University
  Forest Resource Management
  New Brunswick, NJ 08903

  A. Curriculum programs in:
     1. Forest Resource Management
     2. Wildlife Science
     3. Fisheries Science
     4. Conservation and Applied Ecology

Ohio

- The Ohio State University
  School of Natural Resources
  Division of Forestry
  2021 Coffey Road
  Columbus, OH 43210

  A. Undergraduate

     1. Forest Biology
        a. Ecology
        b. Genetics
        c. Soils and Nutrition
        d. Silviculture
        e. Tree Physiology
     2. Forest Industries Management
     3. Forest Resource Management

B. Graduate

1. Master of Science/Natural Resources
2. Interdisciplinary Ph.D.
   Fields of study in:
   a. Biometry
   b. Ecology
   c. Genetics
   d. Resource
   e. Soils & Tree Nutrition
   f. Silviculture
   g. Tree Physiology

A list of Institutions Providing Forestry Education Leading Either to a Technical Degree or Preparation for Study at a 4 Year School

California

- American River College
  4700 College Oak Drive
  Sacramento, CA 95841

  1. Associate Degree, Forestry Training Program in:
     a. Forestry Engineering
     b. Forestry Technician
     c. Outdoor Recreation

- College of the Redwoods
  7351 Tomkins Hill Road
  Eureka, CA 95501-9302

  1. Certificate Program
     a. Forest Technology with emphasis on log scaling and lumber grading.

- Kings River Community College
  Department of Landscape Horticulture,
  Agriculture and Natural Resources
  995 North Reed Avenue
  Reedly, CA 93654

     a. Forest/Park Technician Program with specializations in general forestry, recreation, wildlife, timber and forest products or fire management.

- Lassen Community College District
  P.O. Box 300
  Susanville, CA 96130

  1. Two year Program
     a. Associate of Arts Degree (Forest Technician Certificate)

- Mount San Antinio College
  1100 North Grand Avenue
  Walnut, CA 91789

- Santa Rosa Junior College
  Department of Agriculture/Forestry
  1501 Mendocino Avenue
  Santa Rosa, CA 95401

  1. Two year vocational trainning program
     a. Associate in Science Degree/Forest Technology
     b. Associate in Science Degree/Forest Recreation

- Sierra College
  Forest Technology Program
  5000 Rockin Road
  Rockin, CA 95677-3397

  1. Associate in Science Degree/Forest Technology
  2. Forest Technology Certificate

Connecticut

- College of Agriculture and Natural Resources
  University of Connecticut
  Storrs, CT 06268

  Undergraduate
  1. Bachelor of Science/Natural Resources
     Concerned with natural systems that underline agriculture, forestry, watersheds and other terrestial and aquatic ecosystems.

  Postgraduate
  1. Master of Science
     a. Renewable Natural Resources
     b. Plant/Soil Science

Delaware

- College of Agriculture Sciences
  University of Delaware
  Newark, DE 19711

  Undergraduate
  1. Bachelor of Science
     a. Agriculture (Economics, Education, Engineering, Science)
     b. Entomology
     c. Plant Science

  Postgraduate
  2. Master of Science
     a. Agricultural Economics
     b. Entomology
     c. Plant Science

Florida

- Lake City Community College
  Route 7, Box 42
  Lake City, FL 32055

  1. Associate in Science Degree
     a. Forestry Certificate (1 year)
     b. Forest Engineering Technology
     c. Forest Technology
     d. Forest Technology (Arboritum/Urban Foresry Option)

Georgia

- Abraham Baldwin Agriculture College
  The Division of Forestry
  Tiffton, GA 31793-4401

  1. Technology Programs
     a. Forest Technology
     b. Agri-Business/Science Technology
     c. Wildlife Technology

- Savannah Area Vo-Tech School
  Savannah, GA 31405

  1. Curricula in:
     a. Forestry
     b. Forest Resources (Science of Management Option)
     c. Forest Products (Science-Engineering option or Forest Business Management Option)
     d. Range Resources
     e. Fishery Resources
     f. Wildlife Resources
     g. Wildland Recreation Management

Illinois

- Southeastern Illinois College
  RR #4, College Drive
  Harrisburg, IL 62946

Kansas

Kansas State University
Department of Forestry
Call Hall
Manhattan, KS 66506

1. Preforestry program for transfer to colleges offering a degree in:
   a. Forestry
   b. Parks & Recreation Area Management
   c. Natural Resource Management

Maine

- Unity College of Maine
  RR #78, Box 1
  Unity, ME 04988-9502

  1. Associate in Applied Science
     a. Forest Technology
     b. Wildlife & Fisheries Technology
     c. Conservation Law Enforcement

  2. Associate of Sciences
     a. Pre-Professional Forestry

- University of Maine
  Forest Technology Program
  Orono, ME 04469
  [see SAF Listing of Accredited University Programs]

Maryland

- Allegany Community College
  Forestry Programs
  Willow Brook Road
  Cumberland, MD 21502

  1. Associate in Arts
     a. Pre-Forestry Curriculum
     b. Forest Technology Curriculum

Michigan

- Alpena Community College
  666 Johnson St.
  Alpena, MI 49707

  a. Forest Technology Curriculum
  b. Fisheries Technology Curriculum

- Michigan Technological University
  School of Technology
  Houghton, MI 49931
  [see SAF Listing of Accredited University Programs]

Minnesota

- Arrowhead Community College
  Itasca Campus
  1851 Hwy. 196E
  Grand Rapids, MN 55744

  1. Associate in Applied Science
     a. Forest Technology Curriculum

- Arrowhead Community College
  Vermillon Campus
  1900 East Campus Street
  Ely, MN 55731

  1. Environmental Programs (students planning four-year degree programs should prefix their proposed major as a transfer)
     a. Forestry
     b. Soil & Water Resource Management
     c. Forest Products
     d. Fisheries & Wildlife Management
     e. Recreation Resource Management
     f. Biology
     g. Environmental Studies

- Brainerd Area Vocational Institute
  300 Quince St.
  Brainerd, MN 56401

  1. Curricula offered in:
     a. Natural Resource Technology

Montana

- Flathead Valley Community College
  Number One First Street East
  Kalispell, MT 59901

  a. Forest Technology
  b. Forestry (pre-professional preparation for transfer to the University of Montana, School of Forestry, B.S. degree program)

- Missoula Vocational Technical Center
  909 South Avenue West
  Missoula, MT 59801

  1. Curricula offered in:
     a. Forest Technology

Nevada

- University of Nevada Reno
  Department of Range, Wildlife & Forestry
  College of Agriculture
  1000 Valley Road
  Reno, NV 89512

  1. Curriculum offered in:
     a. Forestry
     b. Watershed Management
     c. Range Management
     d. Wildlife Management

New Hampshire

- University of New Hampshire
  Thompson School
  Forest Technician Program
  Putman Hall
  [see SAF Listing of Accredited University Programs]

New Mexico

- New Mexico State University
  Box 3567
  Las Cruces, NM 88003

New York

- Cornell University
  Department of Natural Resources
  Fernow Hall
  Ithica, NY 14853-0188

  Undergraduate
  a. Natural Resources Curriculum

  Postgraduate
  Curriculum in:
  a. Wildlife Science
  b. Resource Policy & Planning
  c. Fishery Science
  d. Aquatic Science
  e. Forest Science

- Morrisville
  Agricultural & Technical College
  Morrisville, NY 13408

  Natural Resources Curriculum in:
  a. Forestry
  b. General Conservation
  c. Parks
  d. Natural Resource Conservation Transfer.

- Paul Smith's College
  Forestry Division
  Paul Smith's, NY 12970

  1. Associate in Arts Degree
     a. Pre-Professional Forestry
     b. Forest Technician Program
     c. Forest Technician/Surveying
     d. Forest Technician/Recreation

- SUNY College of Environmental Science & Forestry
  Forest Technology Program
  Wanakena, NY 13695
  [see SAF Listing of Accrediated University Programs]

North Carolina

- Haywood Technical College
  Freedlander Drive
  Clyde, NC 28721

  1. Associate Degree in Applied Science
     a. Forest Managment Technology
     b. Wood Products Technology
     c. Lumber Specialists
     d. Sawyer
     e. Saw Filer
     f. Fish & Wildlife Management

- Martin Community College
  Kehekee Park Road
  Williamston, NC 27892

  Technical Education in:
  a. Forest Management
  b. Fish & Wildlife Management
  c. Environmental Science Technology

- Wayne Community College
  Collier Box 8002
  Goldsboro, NC 27503

  a. Forest Resource Technology (18 months)

North Dakota

- North Dakota State University
  Department of Horticulture & Forestry
  Fargo, ND 58105

  1. Associate Degree
     a. Transfer pre-professional program in Forestry

Ohio

- Hocking Technical College
  Nelsonville, OH 45764

  1. Associate Degree Technology
     a. Forestry
     b. Tree Care Certificate
     c. Sawyer Program Certificate (Associate of Technical studies)
     d. Timber Harvesting (Associate in Technical Studies)
     e. Environmental/Industrial Engineering
     f. Recreation & Wildlife

Oklahoma

- Eastern Oklahoma State College
  Wilburton, OK 74578

  1. Associate of Science
     a. Forestry (Objective toward B.S. Forestry)

  2. Associate of Technology
     a. Timber Management
     b. Parks and Nursery Management

Oregon

- Central Oregon Community College
  Bend, OR 97701

  1. Associate of Science
     a. Forest Technology Options in Forest Management or Timber Production

- Chemeketa Community College
  4000 Lancaster Drive N.E.
  P.O. Box 14007
  Salem, OR 97309

  1. Associate in Science
     a. Forest Technology
     b. Forestry (for transfer to Oregon State University, School of Forestry)

- Clatsop Community College
  Forest Technology Department
  Astoria, OR 97103

  1. Associate in Science
     a. Forest Technology options in Forest Management or Engineering.

- Lane Community College
  4000 E. 30th Ave.
  Eugene, OR 97405

  1. Associate in Science
     a. Forest Technology

- Mount Hood Community College
  26000 SE Stark Street
  Gresham, OR 97030

- Southwestern Oregon Community College
  Coos Bay, OR 97030

  1. Associate in Science
     a. Forest Technology

- Treasure Valley Community College
  Natural Resources Department
  650 College Boulevard
  Ontario, OR 97914

  1. Technical Programs
     a. Forest Range Technology (options in Forest or Fire Management)
     b. Range Management
     c. Engineering-Surveying Technology

  2. Transfer Programs in Forestry, Wildlife, Science, and Rangeland Resources

- Umpqua Community College
  Roseburg, OR 97470

  1. Associate in Science
     a. Forest Technology

Pennsylvania

- Pennsylvania State University
  Mount Alto Campus
  Mount Alto, PA 17237

- The Williamsport Area Community College
  1005 West Third Street
  Williamsport, PA 17701-5799

  1. Associate Degree
     a. Forest Technology
     b. Wood Products Technology

Rhode Island

- College of Resource Development
  Agricultural Experiment Station
  Woodward Hall
  Kingston, RI 02881

  Undergraduate
  1. Bachelor of Science/Natural Resources
     a. Forest Science
     b. Wildlife Biology and Manpower
     c. Resources Economics
     d. Soil Conservation
     e. Soil Science

Virginia

- Dabney S. Lancaster Community College
  Clifton Forge, VA 24422

  1. Associate in Applied Science
     a. Forest Technology

Washington State

- Centralia College
  600 West Locust
  Centralia, WA 98531

  1. Associate in Science
     a. Forestry

  2. Associate in Technical Arts
     a. Forestry Technology

- Green River Community College
  Division of Technology/Forestry
  12401 S.E. 320th St.
  Auburn, WA 98002

  1. Associate in Applied Science
     a. Forest Technology

  2. Pre-Professional Forestry

- Peninsula College
  1502 E. Lauridsen Blvd.
  Port Angeles, WA 98362

  1. Associate of Arts
     a. Forestry

  2. Associate of Pre-professional Studies
     a. Forest Technology

- Spokane Community College
  Agriculture Technology,
  Horticulture & Natural Resources
  Spokane, WA 99207

  1. Associate of Arts Degree
     a. Forestry
     b. Forestry Option (Degree Transfer)

  2. Associate of Applied Science
     a. Natural Resources Management/Forestry

  3. Other options in:
     a. Parks and Recreation
     b. Soils
     c. Wildlife

West Virginia

- Division of Forestry and Land Resources
  Glenville State College
  Glenville, WV 26351

  1. Associate in Applied Science
     a. Timber Harvesting
     b. Forest Technology
     c. Land Surveying
     d. Pre-Professional Forestry Program

Please Note There are other institutions providing practical training or preparation for a 4-year curriculum, but as of this printing, they have not responded to a request for information.

Profiles of Consortia Active in International Forestry

C.A.M.C.O.R.E.

C.I.D.

M.I.A.C.

M.U.C.I.A.

N.E.C.I.D.

O.T.S.

S.E.C.I.D.

U.N.I.F.O.R.

Central America and Mexico Coniferous Resources Cooperative
(CAMCORE)
School of Forest Resources
North Carolina State University
P.O. Box 5488
Raleigh, North Carolina 27650

Central America and Mexico Coniferous Resources Cooperative
(CAMCORE)

I. Purpose

The purpose of the Cooperative is to preserve, test and utilize the coniferous resources of Central America and Mexico so as to increase the productivity of tropical and subtropical forest lands. The members of the Cooperative recognize an urgent need to protect from destruction the best genetic materials in the forests of this region before they are forever lost to mankind. The members also recognize that the scope, cost and duration of this effort are such that the foregoing purpose can be achieved only through cooperative, rather than individual, action.

II. Organization

The cooperative is managed from North Carolina State University. As of 1982, it had 13 members who each appoint a representative to serve on an advisory committee. It is this committee in consultation with the Director, located at the University, which establishes policies and broad program direction. A 3-person executive committee appointed from the advisory committee helps establish a specific program.

Membership in the Cooperative is open to any company or organization willing to share in the cost and effort of carrying on the work of the Cooperative.

Organized in 1980, the objectives of the Cooperative are implemented the Forest Managment Group in the School of Forest Resources of North Carolina State University. The University employs personnel to carry out the work of the Cooperative, and the members of the Cooperative make contributions of funds to the University.

III. Programs and Activites

The objectives of CAMCORE are to collect (save) germ plasm of superior coniferous species of trees in Central America and Mexico and to test (through research studies) and utilize the coniferous resources for the purpose of improving the productivity of forest lands in the tropics and subtropics. Efforts have concentrated on seed collection in Mexico, Guatemala, Honduras and El Salvador and the establishment of provenance/progeny tests and conservation banks on cooperators lands.

EMBRAPA (The Brazilian Agricultural Research Enterprise) and IBDF (The Brazilian Institute of Forest Development) joined the CAMCORE Cooperative in 1982. Recently an agreement between the two institutions created the National Program of Forest Research (PNPF) to stimulate and coordinate forest research activities on the national level based on priorities established by both EMBRAPA and IBDF.

PNPF is concerned not only with establishing and testing exotic coniferous and hardwood species throughout Brazil, but also has developed a number of projects for evaluating and protecting native species and the establishment of conservation banks of forest species. Hardwood conservation areas are being set aside in Amazonia; conservation areas of conifers, which include CAMCORE'S preservation banks, are being developed.

In 1982, missions of AID in Honduras, Costa Rica, Panama, and Peru provided financial assistance for students to attend a short course on forestry, organized by CAMCORE and conducted in Spanish in Venezuela.

IV. Contact

(1) Dr. W. S. Dvorak, Director: CAMCORE
North Carolina State University
School of Forest Resources
P.O. Box 5488 - Research Annex West
Raliegh, NC 27650
Telephone: (919) 737-2738

(2) Dr. Zobel, Professor Emeritus and Consultant
CAMCORE
School of Forest Resources
North Carolina State University
P.O. Box 5488
Raliegh, NC 27650
Telephone: (919) 737-3768

V. CAMCORE Member Institutions:

Active Members

Aracruz Florestal - Brasil
Compania Nacional de Reforestacion (CONARE) - Venezuela
Container Corporation of America (Carton de Colombia - Colombia
Carton de Venezuela
Empresa Brasileira de pesquisa Agropecuaria/Instituto Brasileiro de Desenvolvimento Florestal (EMBRAFP/IBDF) - Brasil
Jari Florestal-Brazil
PIZANO/Monterrey Forestal - Colombia
South African Forestry Research Institute (SAFRI) - Republic of South Africa
Weyerhaeuser Corportation - U.S.A.

Honorary Members

Banco de Semillas Forestales/Instituto Nacional Forestal (BANSEFOR/INAFOR) - Guatemala
Escuela Nacional de Ciencias Forestales/Corporacion Hondurena de Desarrollo Forestal (ESNACIFOR/COHDEFOR) - Honduras
Instituto Nacional de Investigaciones Forestales (INIF) - Mexico

Contributing Member

Crown Zellerbach - U.S.A.

Consortium for International Development
(CID)
5152 E. Broadway, Suite 1500
Tucson, Arizona 85711-0455

Consortium For International Development
(CID)

I. Purpose

The Consortium for International Development (CID) facilitates the involvement of the member universities and their faculties in international development, especially in arid and sub-humid areas, and promotes orderly scientific development, management, and use of the world's natural resources.

II. Organization

CID was organized in 1972 as a non-profit corporation and cooperative association. The governing body of CID is the Board of Trustees which is comprised of two trustees from each member university. Functions of CID management are conducted through an Executive Office. The staff consists of an Executive Director, an Associate Executive Director, a Secretary/Treasurer, Deputy Directors, and other support staff.

Contracts between CID and a sponsoring agency provides funds for the projects. A "lead university" is designated for each project and it nominates a faculty member to serve as the CID project director. Personnel for CID projects are recruited from all CID member institutions.

Each member university designates one person as its CID "principal contact officer." The contact officers on all campuses are linked electronically with each other and with CID's executive office in Tucson.

III. Programs And Activities

CID is currently involved in various stages of project planning, initiation, implementation or completion in Bolivia, Cape Verde, Egypt, Gambia, Peru, Saudi Arabia, Sudan, Tanzania, and Yemen Arab Republic. Last year 66 individuals were placed on long-term overseas assignments and over 100 served as short-term consultants, many of which were AID funded.

CID is prepared to perform specific services which relate to forestry and natural resources as follows:

- o Agricultural Economics/Sector Planning
  - Credit Analysis
  - Data Base Development
  - Marketing Economics
  - Policy and Planning
  - Production Economics
  - Social/Economic Analysis

- o Appropriate Technology
  - Alternate Sources and Uses of Energy for the Small Farm
  - Development and Construction
  - Small Farm Tools and Equipment
  - Small-Scale Processing of Agricultural Commodities

- o Business Management and Public Administration
  - Accounting
  - Finance, Insurance, Real Estate
  - Labor Relations
  - Management Information Systems
  - Marketing Analysis, Pricing, Sales
  - Personal Administration
  - Public Administration
  - Regional Development and Urban Planning

- o Development of Institutional Services
  - Agricultural Extension Systems
  - Agricultural Research Systems (National)
  - Credit Institution, including Cooperatives
  - Educational Systems to Serve Technical Agriculture

- o Education
  - Curriculum Development
  - Elementary Education
  - Higher Education
  - Secondary Education
  - Teaching English as a Foreign Language
  - Tests and Measurements
  - Vocational-Technical Education

- o Energy Development
  - Appropriate Technology
  - Renewable Energy Supplies

- o Engineering
  - Civil
  - Hydrological
  - Safety

- o Fisheries and Aquaculture
  - Fisheries Sciences

- o Forestry
  - Afforestation
  - Fertilization
  - Forest Survey
  - Harvesting
  - Manufacturing
  - Marketing
  - Nursery Operation
  - Protection
  - Reforestation
  - Silviculture
  - Timber Management

- o Soil Management/Land Use
  - Agroforesty
  - Rangeland Management
  - Resource Inventory (includes Remote Sensing)
  - Soil Conservation
  - Soil Fertility and management
  - Soil Survey, Classification and Land Use

- o Training
  - Formal Long-term Training in Most Any Discipline
  - Orientation
  - Specialized Training for Particular Groups
  - Study Tours Designed for Specific Needs
  - Technical Courses
  - Vocational Training

- o Water Management and Irrigation
  - Drainage
  - Ground Water Assessment
  - Land Preparation
  - Water Resource Inventory
  - Watershed Management

IV. Contact

1. Dr. John L. Fischer, Executive Director
Consortium for International Development
5151 E. Broadway, Suite 1500
Tucson, AZ 85711-3766
Telephone: (602) 745-0455
Telex: 910 952 1102 CIDCOR TUC

2. Dr. Kenneth Lawrence
Consortium for International Development
5151 E. Broadway, Suite 1500
Tucson, AZ 85711-3766
Telephone: (602) 745-0455
Telex: 910 952 1102 CIDCOR TUC

V. CID Membership Institutions:

*University of Arizona
*Colorado State University
*University of Idaho
New Mexico State University
Texas Tech University
*Washington State University
California State Polytechnic University
Montana State University
*Oregon State University
*Utah State University
University of Wyoming

(Cornell is not a member but has cooperated on projects).

* U.S. institutions with forestry schools or departments, with SAF (Society of American Foresters) accreditation.

Mid-America International Agricultural Consortium
(MIAC)

Executive Director
126 Mumford Hall
University of Missouri
Columbia, Missouri 65211

Mid-America International Agricultural Consortium
(MIAC)

I. Purpose

To provide for a combination of university resources so as to strengthen and enlarge the international agricultural outreach services. To complement the areas of strength in each of the member universities and at the same time expand the opportunities for faculty to participate in worldwide agricultural development activities. To strengthen and enrich the academic and the technical staffs of the member universities in international agriculture. To build upon the history of harmonious working relations among these universities and take advantage of the close geographic proximity, especially as this would relate to an effectual and rapid response capability.

II. Organization

MIAC was formally organized in August 1977 and is governed by a Board of Directors, two members from each of the MIAC universities, appointed by their respective chief executive officer. The day-to-day business of the Consortium is conducted by an Executive Director, located at Kansas State University, who is responsible to the Board and who maintains close working relations with its Management-Operations Committee. They are a not-for-profit corporation registered in the state of Missouri.

III. Program and Activities

The five member universities have a pool of expertise and experience in agriculture and related areas of more than 2,750 professionals. Approximately 10 percent of the 11,200 agricultural graduate and undergraduate students come from countries outside the U.S.

MIAC has had little involvement in forestry activities. However, there is interest in the consortium to reach out and include forestry in the programs. Contract experience by the member universities includes participation in India, Thailand, Philippines, Indonesia, Turkey, Afghanistan, Syria, Costa Rica, Columbia, Mexico, Peru, Uruguay, Tanzania, Malawi, Nigeria, Ethiopia, Pakistan and Ecuador.

Some of the strengths of MIAC member universitites that contribute to forestry are:

- The National Wind Erosion Laboratory of the USDA at Kansas State University is unique in providing relevant technology for managing arid soils.
- The North Central Regional Center for Rural Development, headquartered at Iowa State University, is supported by Land-Grant Universities of the North Central Region and USDA and conducts a multidisciplinary research and extension program addressed to improving the social and economical opportunities of both farm and non-farm people of rural America.

- The Evapotranspiration Laboratory at Kansas State University is concerned with conserving limited water resources by reducing evaporation from soil and plant surfaces and transpiration from plant leaves.
- Two-year Technical School, associated with the University of Nebraska at Curtis, offers associate degrees in such areas as Machinery Technology, Soil Conservation, and Veterinary Technology.
- The Forestry Field Station located near Idabel, Oklahoma, provides a unique opportunity for forestry research.

IV. Contact

Mr. J. Wendell McKinsey, Executive Director
126 Mumford Hall
University of Missouri
Columbia, MO 65211
Telephone: (314) 882-4413
Cable: MIAC

V. MIAC Member Institutions

*Iowa State University
Kansas State University
*University of Missouri
University of Nebraska
*Oklahoma State University

* Forestry Schools or departments with SAF (Society of American Foresters) accreditation.

Midwest Universities Consortium For International Activities, Inc.
(MUCIA)

Executive Director
The Ohio State University
Columbus, Ohio 43210

Midwest Universities Consortium for International Activities, Inc.
(MUCIA)

I. Purpose

MUCIA's objectives are to (1) have an internationalizing impact on the curriculum, research, and teaching of its universities, (2) carry our share of this country's obligation to improve the lot of developing nations and their people by means of a qualified technical assistance programs, and (3) influence the priorities and agenda of donor and assistance agencies.

II. Organization

MUCIA is a consortium of seven major institutions, five of which are 1862 land-grant colleges, established in 1964 with the supprt of the Ford Foundation.

The Consortium is incorporated by the Presidents of its seven member universities. The Council of Presidents meets twice each year. The Presidents appoint a Board of Directors, which meets monthly, and is comprised of Deans, Vice-Provosts, and Directors of International Programs from the member schools. This Board is responsible for managing the affairs of the Consortium. The Executive Director is President of the corporation and supervises its business universities.

The link between the Executive Office and each member university is the Liaison Officer who serves as the principal contact for each institution. In addition, every project has a Lead University and a Project Director.

The MUCIA Executive Office is currently (1983) located on the campus of the Ohio State University in Columbus. The Executive Office prepares proposals, negotiates with sponsors, manages projects, supervises evaluation, is responsible for communications and public information, and generally provides support for projects undertaken.

III. Program and Activities

Projects vary greatly in scope, purpose, and duration, and are supported by domestic and international agencies such as the Ford Foundation, the U.S. Agency for International Development (USAID), the World Bank, World Health Organization (WHO), Food and Agricultural Organization (FAO), and the Asian Development Bank.

In 1983, the Consortium managed nearly $50 million worth of overseas development activities. Some of these programs have operated for more than a decade, and are located in countries such as: Indonesia, Nepal, Burma, Bangladesh and Korea, to Brazil, Peru, the West Indies, and Somalia.

Examples of projects are:

- o Africa (DEVRIS) Strengthening African agricultural research project
- o Bangladesh (World Bank) management education and training project
- o Caribbean (USAID) agricultural extension and technical support
- o Indonesia (USAID) technical services and training Nepal (USAID) development of Institute for agricultural and animal science
- o Indonesia (Asian Development Bank) University of North Sumatra development project.

IV. Contact

Dr. William L. Flinn
Executive Director, MUCIA
The Ohio State University
134 Derby Hall
154 North Oval Mall
Columbus, Ohio 43210
Telephone: (614) 422-2755
Cable: MUCIA
Telex: 246628

V. MUCIA Member Institutions

*University of Illinois
Indiana University
University of Iowa
*Michigan State University
University of Minnesota
Ohio State University
*University of Wisconsin

* Institutions with forestry schools or departments with Society of American Foresters (SAF) accreditation.

Northeast Council for International Development
(NECID)
International Agricultural and Food Program
P.O. Box 231
Cook College, Rutgers Univesity
New Brunswick, New Jersey 08903

Northeast Council For International Development
(NECID)

I. Purpose

To gather and share information about international program and project opportunities relating to agriculture, natural resources and rural development. To cooperate in developing proposals for external funding where such cooperation has clear advantages over individual proposals and is consistent with the objectives of the activity. To develop and disseminate a statement about the areas of strength of universities and colleges in the Northeast which may be applied to problems in developing countries.

II. Organization:

NECID is a loosely organized council which is open to education institutions in the 12 states of the northeastern region of the U.S., Puerto Rico and the U.S. Virgin Islands and which possess capabilities relating to agricultural, marine and rural development.

Reorganized in 1981 to include 10 northeastern universities and the University of Puerto Rico. Within the wide range of NECID's development objectives more than 500 faculty have gone overseas to work on some 600 professional assignments in more than 100 nations.

The Council consists of one individual from each member organization. Chairman, vice-chairman, secretary/treasurer and two directors. A secretary/treasurer may be re-elected indefinitely. Together, they form the Executive Committee. The executive officers have such authority as is granted by the Council as a body.

Special committees may be established by the chairman for specific tasks or specific projects.

Cook College, Rutgers University serves a facilitating and coordinating role with respect to projects with which member institutions may choose to affiliate.

III. Program And Activities

It is not known how many of 600 assignments were AID supported. However, examples of accomplishment in forestry are:

- o Maine's technical assistance in forestry in Africa and Latin America has resulted in about 1 percent availability in fuel wood and in better use of local timber for domestic and industrial use.
- o Massachusetts appraised 4 forestry projects in Niger, Chile, Mauritania, and Ecuador. These are tree plantations for fuel and erosion control. Two have been funded with more than ten million dollars in total.
- o Deleware's Institute of Energy Conversion completed the first national comprehensive energy plan for Panama. This project included a study of the development of renewable energy potential, as well as conventional energy sources. A study of the development of renewable energy potential, as well as conventional energy sources.

Within NECID they have the following areas of expertise which relate to forestry and natural resources:

- o Administrative
  - College Administration
  - Research Administration
  - Extension Education

- o Agricultural Economics - Statistics
  - Natural Resource Economics
  - Rural Economic Planning
  - Farm Management

- o Social and Policy Sciences
  - Adult Education
  - Agricultural Education
  - Curriculum and Instructional Systems
  - Extension Education
  - Communication Arts
  - Rural Sociology
  - Women in Development

- o Natural Resource Sciences
  - Forestry
  - Wildlife
  - Irrigation and Water Management
  - Environmental Planning

- o Aquatic Sciences
  - Aquaculture, Mariculture
  - Fisheries

- o Plant Sciences
  - Soils, Classification, Management
  - Floriculture and Ornamental Horticulture
  - Plant Breeding and Biochemistry
  - Plant Production and Management
  - Pomology
  - Vegetable Crops

- o Crop Protection
  - Entomology
  - Pathology
  - Nematology

- o Basic Sciences
  - Biology
  - Microbiology
  - Plant Science

- o Agricultural Engineering & Technology
  - Alternative Energy Technology
  - Waste Management

IV. Contact:

Dr. Reed Hertford
Chairman, NECID
International Agricultural and Food Program
P.O. Box 231
Martin Hall
Cook College, Rutgers University
New Brunswick, NJ 08903
Telephone: (201) 932-8954

V. NECID Member Institutions:

University of Connecticut
University of Delaware
*University of Massachusetts
University of Puerto Rico
Rutgers University
West Virginia University
Cornell University
*University of Maine
*University of New Hampshire
University of Rhode Island
*University of Vermont

* Institutions with forestry schools or departments with SAF (Society of American Foresters) accreditation.

Organization for Tropical Studies, Inc.
(OTS)
North American Office
P.O. Box DM, Duke Station
Durham, North Carolina 27706

Organization For Tropical Studies, Inc.
(OTS)

I. Purpose

OTS is a non-profit corporation established in 1963 to promote the study of science in the tropics; to conduct organized programs of graduate training and research on tropical problems; and to serve as a national and international agency for coordinating and facilitating the work of individuals and groups in the tropics. Its central purpose is to acquire and disseminate a broad understanding of tropical environments and man's relationship to them by means of a sound program of teaching and research.

II. Organization

OTS has 28 members, four of them Costa Rican institutions of higher learning, the rest North American. A 54-person Board of Directors establishes policy. A twelve-person Executive Committee elected from the Board is empowered to act on the Board's behalf. Presidential Committees carry out special assignments. The conduct of general business is delegated to staff under the Executive Director in the North American Office and the Chief of Operations in the Central American Office. Duke University currently serves as the legal fiscal agent for OTS and is the responsible grantee for administering sponsored programs and coordinating financial plans.

A small, 4-person staff at Duke is the focal point for long range planning, financial management and overall coordination of activities, originating from the United States. A San Jose office staff of ten handles logistics and financing for all Costa Rican activities, and administers a tropical science library and vehicle fleet.

III. Program

Specific services offered by the Consortium:

1. Graduate training program in tropical science subjects (including forestry), in both English and Spanish.
2. Provides logistics and facilities for scientists work in Costa Rica:
    a. La Salva Biological Field Station: 3,500 acres, plus laboratory computer, library, herbarium and research equipment facilities.
    b. Las Cruces: 336 acres, field station and botanical garden.
    c. Palo Verde Field Station.

III. Program and Research Activities

Since the inception of the graduate training program in 1964, OTS has offered more than 80 courses in such diverse subjects as terrestrial ecology, agriculture, biometrics, earth sciences, forestry, limnology, and marine biology.

Efforts are currently underway to establish La Selva as part of the research and monitoring network for major environmental perturbations.

IV. Contacts

Contact with OTS is through either of two offices:

1. North American Office
   P.O. Box DM, Duke Station
   Durham, NC 27706
   Telephone: (919) 684-5774

2. Central American Office
   Universidad de Costa Rica
   Ciudad Universitaria
   Costa Rica, C.A.
   Telephone: 25 22 18

V. OTS Member Institutions

*University of California-Los Angeles
University of Chicago
University of Connecticut
University de Costa Rica
*University of Georgia
University of Iowa
University of Miami
*University of Minnesota
University of North Carolina
University of Southern California
Tecnologico C.R.
Texas Tech University
Washington State University
*Duke University
City University of New York
Cornell University
*University of Florida
Harvard University
University of Kansas
*University of Michigan
Museo Nacional U. Nacional Autonoma
Smithsonian Institution
SUNY Stony Brook
*University of Washington
*University of Wisconsin

* Insitutions with forestry schools or departments with SAF (Society of American Foresters) accreditation.

The South-East Consortium for International Development
(SECID)
400 Eastowne Drive
Chapel Hill, North Carolina 27514

The South-East Consortium For International Development (SECID)

I. Purpose

The member institutions collaborate through SECID on international activities which utilize their main disciplinary skills of education, research, and extension. SECID provides the opportunity for member institution involvement in projects which would not be feasible to staff from a single institution.

II. Organization

Organized in 1977, SECID is a not-for-profit organization of 33 academic and research institutions in the southern and eastern regions of the U.S. The membership spans 17 states and includes all of the "1890's" schools and 12 of the land grant universities. The policies of a board of trustees are implemented by the administrative offices located at Chapel Hill, North Carolina and Washington, D.C.

SECID's central office at Chapel Hill, North Carolina handles contract management, financial services and communications services. The staff is functionally organized as follows: Administrative Office: Executive Director, Cooperate Secretary and Tresurer, Office of Institutional Development, Office of Strengthening Programs, Office of Education and Training, Office of Resource and Environmental Management, Office of Program Development. There are about 50 employees.

Each of the member institutions appoints a member to serve on the Board of Trustees. From this board a 7-member Executive Committee is elected.

Gross revenues have increased from $1.2 million in FY 77-78 to $13.5 million in FY 81-82.

III. Programs And Activities

Institutional development, training and environmental management projects are located in Nepal, Sri Lanka, Seychelles, Kenya, Senegal, Mali, Upper Volta and Zaire. In addition SECID administers an Africa-wide project in environmental training and a world-wide project on Women in Development. These activities are described in annual reports.

All projects managed by SECID have research components. For example the $32.5 million resource conservation and Utilization Project in Nepal has about 10 percent of the budget related to direct in-country research.

Most of SECID's projects are AID sponsored. Two major projects are directed to forestry development problems:

- o Nepal - Resource Conservation and Utilization
- o Sri Lanka - Reforestation and Watershed Management

The University of Maine and SECID are collaborating on an Agroforestry project in Haiti sponsored by the Methodist Church.

IV. Contact

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   Suite 300
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   Telephone: (202) 429-1804

V. SECID Member Institutions

Alabama A & M University
*Auburn University
Delaware State College
Florida A & M University
Georgia Institute of Technology
Langston University
Lincoln University
North Carolina A & T University
*Pennsylvania State University
Research Triangle Institute
Southern University
Tuskegee Institute
*University of Florida
*University of Kentucky
University of Maryland
University of North Carolina
*Virginia Polytechnic Institute and State University.

Alcorn State University
*Clemson University
*Duke University
Fort Valley State College
Kentucky State University
*Louisiana State University
Mississippi State University
*North Carolina State University
Prairie View A & M University
South Carolina State College
Tennessee State University
University of Arkansas
*University of Georgia
University of Maryland (Eastern Shore)
*University of Tennessee
Virginia State University

* Institutions with forestry schools or departments with SAF (Society of American Foresters) accreditation.

Universities for International Forestry
(UNIFOR)
Secretariat, c/o SUNY-ESF
Syracuse, New York 13210

Universities For International Forestry
(UNIFOR)

I. Purpose

UNIFOR was established in June 1978 to provide a basis for combining the faculty, staff and other resources of cooperating member institutions to conduct joint programs of education and training, research and professional services in the field of international forestry. The basic interest has been to utilize combined resources in programs that can better be accomplished in concert than by a single institution acting alone.

II. Organization

UNIFOR currently has eight members. All, as a matter of policy, are universities with academic programs consistent with the purposes of the Consortium.

A Governing Board made up of one senior representative from each member institution develops policy. It meets at least once annually. An Operating Committee (one representative from each member institute) supervises the program of the Consortium and performs other functions delegated by the Governing Board.

An Executive Secretary serves as the chief operating officer for the consortium, and is an ex officio member of the Governing Board of Operating Committee. A small Secretariat includes a clerical staff, professional staff and project directors of approved UNIFOR projects.

All UNIFOR business is contracted through the member institution providing secretariat services, with other member institutions cooperating as subcontractors on individual projects. Currently, the Business and Fiscal Agent for UNIFOR is the Research Foundation of the State of New York.

Administration and technical responsibilities for project activities are centered in a Project Director designated by the Governing Board. Project professional personnel are recruited from UNIFOR faculty or from other qualified sources.

III. Program and Activities

The eight member institutions have a combined teaching, research and extension faculty of 666. During the 1970's and 1980's they mounted over 60 international projects in institutional development, resource management, resource economics, wood harvesting, conversion and utilization, forest cultural practices, soil and water relationships, forest protection, wildlife and fisheries management, forest recreation and amenities, environmental impact assessment, social context of forest resources, agroforestry and other, general studies. Although several of these activities were AID-funded, current AID support to UNIFOR is nil. One member, Idaho, has two ongoing AID-supported projects (Honduras and Senegal).

IV. Contact

The center of contact for UNIFOR is:
UNIFOR Secretariat, c/o SUNY-ESF
Syracuse, NY 13210
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Telex: 7205 10555
Cable: SUNYCESF

V. UNIFOR Member Institutions

*University of Arizona
*Colorado State University
*University of Idaho
*University of Michigan
*University of Minnesota
*North Carolina State University
*State University of New York
*University of Washington

* Institutions with forestry schools or departments with SAF (Society of American Foresters) accreditation.

INTERNATIONAL LINKAGES AND ACTIVITIES AT NORTH AMERICAN FORESTRY SCHOOLS

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Paper presented at the 1983 SAF National Convention
International Forestry Working Group (E-5)
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Portland, Oregon

ABSTRACT

The International Forestry Working Group surveyed the international linkages and activities at the accredited forestry schools in the U.S. and Canada. The extent of these linkages and activities is highly variable from one forestry school to another. However, a few summary statistics are presented. The North American forestry schools assimilate nearly 800 foreign students, three-fourths of whom are from developing countries. About 90 North American graduate students are engaged in research which is "international" in scope or subject matter. Approximately 38% of forestry school faculty members have had at least some foreign professional experience in the past five years. Almost half of the forestry schools report twinning relationships or other linkages with foreign institutions. Criteria for assessing the appropriate commitment to international linkages and activities is left as a challenging exercise for forestry school administrators and faculties.

INTRODUCTION

Foresters in the U.S. and Canada are increasingly aware of, and influenced by, forestry beyond our national borders. Evidence of this appears in the letters and articles printed in our journals; in the re-activization of the ISTF; and in the large and growing membership of SAF's International Forestry Working Group (now numbering approximately 700 foresters). Much of the intellectual leadership for viewing forestery in its international context is vested in the forestry schools at our colleges and universities. It is the colleges and universities which encourage faculty to travel abroad on professional assignments; admit foreign students into the classroom; and offer instruction in languages and global politics.

Yet the extent of international linkages and activities at the forestry schools has not been studied systematically. Neff (1982) surveyed forestry curricula for courses designed to present the "global view" of forestry, concluding on this basis that the international component is generally weak or absent. However, formal course offerings are only one of several measures of the international perspective. Other measures are the presence of foreign students to expand the perspectives of North American faculty and students; the opportunities for North American students to study abroad or to pursue research of international scope; and the existence of exchanges and agreements which link North American forestry schools with institutions in other countries.

To provide a preliminary assessment of these other measures of internationalism, the International Forestry Working Group designed a questionnaire to be answered by the 44 accredited forestry schools in the U.S. and the 6 accredited forestry schools in Canada. A first mailing was made in December 1982; follow-up mailings and telephone reminders resulted in an eventual response rate of 98%. The single non-responding school is known not to have international interests. All data reported in the questionnaires refer to the fall semester (or quarter) of 1982.

FOREIGN STUDENTS

The U.S. and Canada attract foreign students from virtually all regions of the world. In the U.S. alone, the total number of foreign students increased from 135 thousand in 1969-70 to more than 327 thousand in 1981-82. Foreign students come to North America for our free and open spirit of higher education; for pioneering research that cannot be duplicated in other places; for the highly pragmatic orientation of many of our degree programs; for the overall prestige of attending a university here; and--in a limited number of cases--for taking a first step towards permanent residence or citizenship (Goodwin and Nacht 1983).

Table 2. Trends in foreign student enrollment at North American forestry schools over the past five years.

	Enrollment Trend	
	Undergraduate	Graduate
	---number of forestry schools reporting---	
U.S.		
Significant increase	1	4
Moderate increase	5	12
About the same	24	14
Moderate decrease	5	5
Significant decrease	1	3
Canada		
Significant increase	0	0
Moderate increase	1	4
About the same	4	2
Moderate decrease	0	0
Significant decrease	1	0

N.B.: The trends for undergraduate students refer to upper division only. Trends for lower division are very similar, and will not be reported.

Basis: 40/44 schools in U.S.; 6/6 schools in Canada.

Table 3. Geographical origin of foreign students at North American forestry schools.

	U.S.	Canada	Total
	--number of foreign students--		
Mainly developing regions			
Asia (ex. Japan)	174	31	205
Africa	127	45	172
Latin America & Caribbean	129	22	151
Middle East	51	2	53
Oceania	6	0	6
Sub-totals	487	100	587
Mainly industrialized regions			
Europe	51	39	90
Canada (U.S.)	39	20	59
Japan	22	2	24
Australia & New Zealand	8	0	8
Sub-totals	120	61	181

Basis: 43/44 schools in U.S.; 6/6 schools in Canada.

Table 4. Technical specializations of foreign graduate students at North American forestry schools.

	U.S.	Canada	Total
	--number of foreign graduate students--		
Specialization			
Wood science & technology	110	9	119
Silvics, silviculture, ecology, forest biology	59	23	82
Policy, admin., economics	48	6	54
Forest management	37	5	42
Wildlife & fisheries mgmt.	37	3	40
Watershed mgmt., hydrology	29	2	31
Range management	28	0	28
Mensuration, biometrics, inventory	19	5	24
Forest genetics	14	6	20
Land-use planning	13	5	18
Forest soils	10	4	14
Engineering, harvesting	10	4	14
Pathology, entomology	11	1	12
Forest recreation	9	1	10
Photogrammetry, cartography	6	3	9
Conservation, extension, public relations	7	0	7
Urban forestry	5	1	6
Agro-forestry, international forestry	5	0	5
Fire control	0	2	2
(Not elsewhere classified)	(41)	(0)	(41)

Basis: 41/44 schools in U.S.; 6/6 schools in Canada.

Table 5. Foreign experience of North American forestry faculty members in the past five years.

	U.S.	Canada	Total
	---number of faculty members--		
Person-weeks of foreign experience			
None	815	95	910
1 - 4	210	25	235
5 - 12	122	14	136
13 - 26	70	10	80
27 - 104	65	13	78
105+	18	5	23

Basis: 43/44 schools in U.S.; 6/6 schools in Canada.

Table 7. Technical specializations of North American forestry faculty members on foreign assignments.

	U.S.	Canada	Total
	---number of person-weeks in past five years----------		
Specialization			
Silvics, silviculture, ecology, forest biology	744	284	1,028
Policy, admin., economics	815	212	1,027
Range management	702	30	732
Wood science & technology	494	218	712
Wildlife & fisheries mgmt.	509	80	589
Watershed mgmt., hydrology	577	10	587
International forestry	432	120	552
Forest management	467	31	498
Pathology, entomology	374	5	379
Forest genetics	225	120	345
Mensuration, biometrics, inventory	262	75	337
Forest soils	312	19	331
Land-use planning	290	13	303
Forest recreation	239	42	281
Engineering, harvesting	125	90	215
Conservation, extension, public relations	178	20	198
Photogrammetry, remote sensing, cartography	86	4	90
Agro-forestry	89	0	89
Urban forestry	28	1	29
Fire control	3	13	16
(Not elsewhere classified)	(210)	(0)	(210)

Basis: 40/44 schools in U.S.; 5/6 schools in Canada.

A modest number of forestry faculty members are engaged in language training. The extent of language training is difficult to evaluate and report, since it can take on varying degrees of formality or informality. The questionnaires show 50 faculty members in the U.S. and 6 faculty members in Canada who are studying foreign languages. In decreasing order of frequency, the languages cited are Spanish, French, and German. Additionally, thre is one tally for each of Creole, Russian, Greek, and Japanese. Of course, an unknown number of faculty are competent in other languages through foreign birth, childhood upbringing, or previous training.

international commitments also vary widely. This underscores the rationale for wide diffusion of descriptive information on the international dimensions of the different forestry schools. Objectives are to guide students' decision-making about where to study, and to educate deans and department heads about competing programs across North America.

Secondly, the international linkages and activities are more easily described objectively than evaluated subjectively. For this reason the Canadian schools are neither condemned nor condoned in relation to the U.S. schools, nor are individual schools singled out for praise or criticism. Names of specific schools are used in this paper only as examples, and not necessarily as models. Criteria for judging the appropriate commitment to international linkages and activities is left as a challenging exercise for individual school administrators and faculties, perhaps assisted by the results of this survey.

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