

The Senate of Michigan Technological University

PROPOSAL 6-87

DOCTOR OF PHILOSOPHY IN FOREST SCIENCE

BACKGROUND:

In February 1987 the State Academic Officers approved a program offering a Doctor of Philosophy in Forest Science at MTU. Prior to submitting the proposal to the state level, it was approved by the Graduate Council in May, 1986, the Senate in September, 1986 (Proposal 1-87), and the MTU Board of Control in January according to procedures outlined in Senate Proposal 7-78, General Policy for Academic Program Planning. The proposal must now receive final approval by the Senate and the Board of Control prior to implementation. The Senate Curricular Policy Committee voted on April 2, 1987 to recommend that the Senate recommend the approval of the proposed program.

PROPOSAL:

The Senate of Michigan Technological University recommends the establishment of the program offering the Doctor of Philosophy in Forest Science.

PROGRAM DESCRIPTION:

Introduction

The State of Michigan is undertaking policies to nearly double the number of people in the State depending on the forest industry for their livelihood. This increased demand on the natural resource will require increased ecological understanding, improved management techniques, and improved methods of fiber utilization to prevent degradation of the resource and insure its future productivity. In 1981, a special review conducted under the auspices of the U.S. Department of Agriculture, Cooperative State Research Service, identified three areas of strength in the School of Forestry and Wood Products at MTU compared to other schools in Michigan and the Midwest. These three research areas are: forest soils and ecology, quantitative forest management, and wood and fiber utilization. By concentrating in these three areas, existing strengths of the University will be effectively utilized providing needed services to the State of Michigan by educating knowledgeable professionals for careers in industry, public agencies, consulting, and other universities.

Admission

Applicants into the program must demonstrate an interest in, and the capabilities for, independent research. It is expected that most applicants will have a M.S. degree in some field providing them the necessary background to undertake a Ph.D. program in one of the three research areas. The student's advisory committee will be responsible for evaluating the student's educational needs and for conducting the proficiency, comprehensive, and final examinations. Admission to the program is based on the recommendation of the Graduate Admissions Committee in the School of Forestry and Wood Products and subject to the approval of the Dean of the School of Forestry and Wood Products and the Dean of Research and Graduate Studies.

Course of Study

After acceptance into the program, the Dean of the School of Forestry and Wood Products, in consultation with the student's principle advisor, and with the approval of the Dean of Research and Graduate Studies, will appoint an advisory committee consisting of at least four members of the graduate faculty during the first quarter of residence. The design of the academic program will depend on the student's interest and background. A minimum of six quarters in residence will be required; a proficiency exam will be held at the end of the third quarter of residence to determine whether the student is making satisfactory progress and if additional coursework is needed. A comprehensive exam, normally given at the end of coursework but no later than the seventh quarter in residence, is required to be completed at least two quarters prior to the final examination. It is anticipated that the average program will require three years subsequent to the completion of the M.S. degree.

Research Areas

The three research areas were identified as existing strengths at MTU based on the experience of the faculty, levels of external funding, and the scope and breadth of the M.S. theses. The initiation of the Ph.D. in Forest Science is not expected to change the current research or educational thrusts of the School.

Funding Support

From 1980 through 1986, the three research areas generated over 10 million dollars in external funding. Current projects in the School of Forestry and Wood Products average over \$120,000 in external research funding for each member of the Graduate Faculty. Any funds required to implement the proposed program, such as Graduate Research Assistantships, equipment, etc. will come from these sources and will not require additional funding from the University.

Resources

Existing laboratory and research facilities are sufficient to support the new program. No major equipment purchases will be required when the program is implemented and no further faculty or staff requirements are foreseen to be needed to support the Ph.D. program. Funds for the purchase of books and monographs are sufficient to maintain the program; available funds for journal subscriptions provide a minimum level of support in the three research areas. When coupled with interlibrary loans, reprint acquisitions from other sources, and resources of the faculty, there will be adequate and up-to-date library resources to support research conducted by Ph.D. students.

Adopted by Senate: 6 May 1987

Supported by Administration: 14 May 1987

BOC Approval: 22 May 1987