UTC PROJECT DESCRIPTION

PROJECT NUMBER:
99249

PROJECT TITLE:
Development of Multi-campus Multidisciplinary Transportation Curriculum for UTCA

PRINCIPAL INVESTIGATORS:
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PROJECT OBJECTIVE:
The major objective of this project will be to develop unique multidisciplinary multi-
campus transportation curricula at the B.S. and M.S. levels for all three UA System
campuses. Graduate programs will be developed to attract students who do not have an undergraduate civil engineering background to careers in transportation engineering as well as students with undergraduate civil engineering degrees. This coordinated curriculum will improve transportation engineering education in the University of Alabama System.

PROJECT ABSTRACT:
This project will focus on the design of an ideal curriculum of multidisciplinary transportation course work for the three UA system campuses. The investigators will evaluate existing curricula and courses on all three campuses, identify desired new courses, and prepare sample transportation curricula. The project team will also identify barriers and incentives for adoption of the program. A team approach encompassing all three campuses (UAB, UA, and UAH) will be used. Two different levels will be investigated, all of which will have a multi-campus course requirement – an undergraduate area of emphasis (two or three courses), and Master of Science in Civil Engineering and other Master’s Degree options. To reinforce the multi-campus nature of these programs, the undergraduate area of emphasis and Master of Science options will require that students complete coursework at their home campus plus at least one other UA System campus. The multi-campus course work may be resident or may be undertaken through IITS, Quest, or other distance learning technologies.

PROJECT TASK DESCRIPTIONS:
Task 1 – Literature review, investigate other transportation engineering programs at U.S. universities
Task 2 – List existing courses at all three campuses that could be applied to multidisciplinary transportation curricula
Task 3 – Develop an initial outline of the undergraduate and Master’s options
Task 4 – Attend conferences to interact with other faculty in the area of transportation engineering
Task 5 – Refine programs outlined above
Task 6 – Identify desired new courses, identify important areas that suggest new faculty recruiting, and develop a course coordination and distance learning strategic plan
Task 7 – Final report

MILESTONES AND DATES:
Startup, start Tasks 1-4 – Oct. 1, 1999
Start Tasks 3-6 – Apr 1, 2000
Finish Task 7 – Dec 31, 2000

TOTAL BUDGET:
15-month project: UTCA $ 34,765; total budget of $69,578.

STUDENT INVOLVEMENT:
Students at all three campuses will be involved in researching other transportation programs. This project will provide hourly financial support for the involved students.
RELATIONSHIP TO OTHER RESEARCH PROJECTS:
This project will provide a sound educational foundation for UTCA research activities. It will compliment UTCA project 99116 “Development of an Interdisciplinary Transportation & Logistics Education Curriculum”, which is being conducted by Dr. Jay Sterling of UA.

TECHNOLOGY TRANSFER ACTIVITIES:
The principal focus of this project is technology transfer within the University of Alabama System.

POTENTIAL BENEFITS OF THE PROJECT:
Education is one of the six goals of all federally supported University Transportation Centers. Thus, the UTCA Executive Committee has designated this project as a high priority topic to enhance management and safety of transportation systems. A sound educational foundation at the undergraduate and graduate levels involving all three UTCA campuses will be critical to support the research and outreach activities of the Center.

TRB KEYWORDS:
Transportation, education, technology transfer.