PROGRAM SUMMARY DESCRIPTION

The Transportation Leadership Graduate Certificate Program
A Graduate Education Workforce Development Initiative Launched By
The Nation’s Regional University Transportation Centers

PROGRAM WEBSITE AT HTTP://WWW.TRANSLEADER.ORG

PROGRAM THEME: Transportation Policy, Management and Operations

December 17, 2008

Program Purpose and Objectives

The purpose of the Transportation Leadership Graduate Certificate Program (the “Certificate”) is to make a significant contribution in helping to enhance the transportation profession; establishing an adequate reservoir of professionals to compensate for anticipated retirements; and to better prepare professionals from several disciplines to assume 21st Century leadership roles at the executive levels in the rapidly growing field of transportation. The first graduate level courses will be delivered nationally by outstanding graduate education faculty over distance learning media starting in January, 2009. They are listed on the above shown program website, with details on the courses and how to apply as non-matriculating students.

The program’s objective is to nurture those with potential leadership qualities to logically advance both within the public and private sectors along the promotion tracks from technical responsibilities, to management responsibilities, and eventually on to leadership roles. It is one, but an important contribution to the well documented workforce development challenges faced by the transportation profession.

Certificate Features and Requirements

- This is a Certificate program, not an academic graduate degree program.
- Four theme-related graduate level courses are required, taken for a minimum grade of “B” or as required at individual universities.
- Courses include topics such as transportation systems, operations, finance, strategy, political science and others noted below.
• Courses are delivered by outstanding faculty from outstanding universities, using distance learning media.
• Students can request that credits be transferred to University graduate programs towards an advanced degree, but must apply to a university for that purpose.
• The product for individuals is a prestigious and unique Certificate awarded by the Regional University Transportation Centers, and endorsed by public and private sector leaders.
• This is a four year pilot program, to be continually monitored and improved.

Reasons for Establishing a Certificate Rather Than an Academic Degree
• A non-degree program makes it more accessible to more people, at more universities, without going through a formal admission process.
• Encourages professionals to “test-the-waters” of graduate education; possibly leading to formally applying for admission to graduate degree programs.
• Fills an educational gap between a completed undergraduate degree and formal graduate education programs.
• Assists in addressing well-documented workforce needs.

The Certificate is Unique
This Certificate is a unique enterprise for the following reasons:
• Enables individuals to participate while still maintaining employment demands.
• Provides opportunities for individual universities to significantly broaden existing curricula and courses offered to an expanded audience, as well as to its resident students.
• Typically, no single university has the in-house resources available to offer such a wide array of courses delivered by a national group of notable and outstanding faculty.
• Completion of the interdisciplinary, multi-modal program will be viewed as unique, prestigious and achievable.
• Brand name recognition, nationally and internationally, will allow Certificate holders and others to view this as an important and significant accomplishment.
Motivation for Establishing the Program

There are two reasons why the program has been established:

- Research has proven that existing professionals need expanded and current knowledge on a continuing basis in order to do their jobs more effectively.
- There is a growing shortage of professionals entering and then remaining in transportation jobs. Thus, we hope to attract new people and expand university graduate education transportation programs.

The Target Audience

- Existing, early-to-mid-career transportation professionals with technical, operations and planning experience; employees of public and private sector.
- Recognized by their employers as potential leaders of their organizations.
- Professionals from other supporting disciplines (e.g. systems engineering, operations research, information technology, social/environmental sciences, finance, political science) who may be interested in transferring their skills to the transportation profession.
- Individuals considering the possibility of obtaining an advanced degree who may wish to “test the waters” before doing so.

Motivation to Attract Individuals as Students

There are several reasons that include:

- The personal and professional desire to “make a difference” and to enhance the advancement of the transportation profession.
- Job promotion
- Pay increase requirements
- Job seeking requirements
- Professional registration requirements
- A desire to “test the water” before applying for an advanced degree
- Employers will be encouraged to provide financial support, as they will benefit from better educated employees
- This program is supported by the professional organizations and industry leaders
• There is a growing shortage of professionals in the transportation sector, and this is viewed as an opportunity to help fill important gaps in the workforce.

**Reasons for Establishing the Curriculum**

Two decades of research and studies concerning “Transportation Education and Workforce Development” needs have all resulted in common themes concerning Transportation Education and Workforce Development. It is clear that individuals having a Bachelor’s degree or even a Master’s degree must continue their education to move from technical, to management, to leadership roles in both the public sector and private sector. Seasoned professionals are retiring, while recent graduates are being hired. But, there is a growing knowledge gap between newer technical professionals with limited experience and the senior level experienced professionals and leaders. A synthesis of the research to date has concluded that the competencies required to educate the Transportation Leaders of the future beyond the Bachelor’s degree must include:

• Understanding the “Big Picture” in several areas, such as:
  - Multimodal transportation systems integration
  - Logistics and supply chain management

• The role of the political process in transportation decision making

• Organizational and Management principles

• Systems Engineering principles

• Operations Research principles

• Transportation finance

• The role of technology applications

• Conflict resolution among competing interests

• Social, environmental and economic analysis

• Energy and the environment

• Transportation security
The Curriculum

Based upon research and the practical experience and advice of leaders in the public and private sectors, the following curriculum has been established. Seven theme related core course titles have been established, as well as seven theme related electives. For each general course title, a set of topics have been outlined. For the first year of the program, it is anticipated that currently available courses will be offered that provide the desirable content. As the program matures, new courses could be developed. The general course titles are provided below, with more detail available on the program website located at http://www.transleader.org. The web site also includes the course outlines.

The Core Courses

- Transportation Policy and Planning
- Transportation Systems Analysis
- Transportation Economics
- Transportation Operations and Safety
- Transportation Management
- Transportation Security
- Climate Change and Energy

The Electives

- Freight Logistics
- Project Management
- Advanced Modeling Techniques
- Infrastructure Technology and Management
- Information Technology Management
- Environmental Analysis
- Multi-modal focus: Either one general overview course or one of a variety of full-semester courses; including:
  - Transit Planning and Operations
  - Airport Planning and Operations
  - Water Ports and Harbor Planning and Operations
  - Rail Freight and Passenger Planning and Operations
  - Bikeways and Pedestrian Planning and Operations
Applying For Admission to a Course

- Go on the Program website at http://www.transleader.org
- Review the courses available
- Apply directly to the University offering the course, by linking to that University’s admissions web-site

Tuition

- It is anticipated that many employers will identify and be willing to provide tuition support to the students. It is the responsibility of individuals to work with their employers to explore those responsibilities.
- Students may also apply directly to the university for tuition assistance, where such assistance is available.
- Tuition is paid directly by the student to the university offering the course

Administrative Structure and Oversight

This program was established by the Founding Directors of the 12 national, competitively selected Regional University Transportation Centers. However, as soon as possible after the first pilot is underway and all administrative details are finalized, it will be open for course delivery by any member of the Council of University Transportation Centers who wish to offer theme relate graduate courses via distance learning media available on a national scale. But any university wishing to allow students to apply for Certificate courses are welcome to do so, consistent with their policies.

The interim administrative structure is directed by a Board of Directors that is composed of the RUTC Directors, and an Executive Committee composed of several of its members.

In addition, a national Advisory committee has worked with the RUTC’s to help establish the details of the program and the curriculum being offered. That committee will continue to guide the program as it proceeds.

As we launch this four year pilot program in January, 2009, it will be continually monitored and improved by the group briefly described here.

For more information, please review the program website.
This Program is a Win-Win-Win-Win Opportunity for All

For students

- Unprecedented opportunity for individuals to expand their breadth and depth of knowledge in many new and challenging dimensions
- Graduate courses taken for credit at their place of employment or at home, from some of the best university faculty in the nation
- Preparing to move from excellent technical competencies, to management responsibilities, and eventually to leadership roles

For universities:

- Provides the opportunity to greatly increase the number of tuition-paying students who enroll in graduate courses
- Provides more incentives for students to continue on to graduate education
- Has the potential for attracting new, young faculty to Transportation
- Expands the number of graduate course offerings beyond what an individual university can provide

For the transportation Associations:

- An important opportunity to contribute to addressing a well documented and understood need to increase the supply of professionals
- Fully consistent with their Strategic Plans
- The potential to increase the numbers of new members

For the surface transportation industry:

- Will make a significant contribution to addressing some of the well documented, well known education needs in Workforce Development

For More Information and Details

View the program web-site at http://www.transleader.org