**AHEAD OF THE CURVE – Migration from NCHRP to AASHTO Technical Training Solutions**

**Study Description**

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| **Background:**In 2011, raising the profile and stature of transportation research became a major theme during meetings of the TRB Technical Activities Council, the TRB standing committees on Conduct of Research and Technology Transfer, and the summer meeting of the AASHTO RAC/TRB state representatives. It quickly became established that a standardization of transportation research management was needed. Discussions among TRB staff and volunteers led to recommend a program that in 2012 that came to be known as “Ahead of the Curve (AOTC) Mastering the Management of Transportation Research and Innovation.” The mission of the initiative was ‘to develop and deliver a TRB program that enhances the knowledge, skills and abilities of managers of transportation research programs and those responsible for innovation in a coordinated manner and on a continuing basis. An article in the January-February 2020 issue of TR News describes the evolution and benefits of this program.The AOTC Program is comprised of four required core courses that are built upon the research cycle and twelve more subject detailed electives presented through webinar format. Below is a list of the required core courses and descriptions: 1. Making Research Relevant – This is an overview course designed to provide basic understanding of the importance and value of research, types of research, the research life cycle, stakeholders typically involved in transportation research (i.e. state DOTS, universities).
2. Running a Research Program – This course provides students with the nuts and bolts of how to run a transportation research program. Student will learn about establishing and facilitating oversight committees, soliciting research ideas, managing deliverables, tracking and monitoring the program, working with principal investigators, reviewing proposals, contracting, research results and dissemination.
3. Delivering the Program – This course will provide basic understanding of technology transfer and methods of delivery, assessing the return on investment (ROI) and performance measurement for research projects and programs, and how to effectively communicate the benefits of research projects and programs to different stakeholders.
4. Quality Improvement – Students will learn about quality assurance, quality control fundamentals, strategic planning to determine what they want to achieve, how to evaluate the research program, project monitoring practices, and measuring and analyzing stakeholder feedback.

The following electives have been developed: 1. Continuous Quality Improvement
2. Funding
3. Knowledge Management
4. Writing Effective Research Needs Statements
5. Building and Engaging Effective Research Champions
6. Building Partnerships
7. Strategic Planning for Research
8. Innovation and Risk Management
9. Intellectual Property
10. Performance Management
11. Scientific Methods
12. Program Design – Individual Project

Over the course of the next four to five years, the introductory course and four core courses were delivered in a face-to-face format and four elective courses were delivered in a virtual format. NCHRP funding ceased at this time and the courses have sat dormant since 2019 leading to the current state where the courses exist, but no mechanism exists to have them be taught.A survey conducted at the AASHTO RAC meeting in 2023 indicated that more than half the states in attendance would support a pooled fund effort to move the AOTC material to TTS with the remaining attendees would probably support the effort, but need additional approval from their respective agencies first. AASHTO has agreed to work with the pooled fund study Technical Advisory Committee (TAC) and chosen contractor to ensure quality control and acceptance of the AOTC course material into the AASHTO TTS program. With these courses available in the AASHTO TTC program, member states research offices, and other staff as necessary, will have easy access to the entire AOTC program in an on-demand format. AASHTO has agreed to work with the pooled fund study Technical Advisory Committee (TAC) and chosen contractor to ensure quality control and acceptance of the AOTC course material into the AASHTO TTS program. With these courses available in the AASHTO TTC program, member states research offices, and other staff as necessary, will have easy access to the entire AOTC program in an on-demand format.Note that since these courses were all developed over ten (10) years ago, a significant effort will be made during the course of this pooled fund effort to properly update all core and elective course materials with the most recent changes in CFR as well as incorporate the most up-to-date best practices for implementation, project management, etc. developed between 2012 and 2024. |
| **Objectives:**The primary objectives of this pooled fund study are as follows: * Transfer AOTC information from NCHRP to AASHTO
* Update existing four (4) core courses to reflect recent changes in CFR governing State DOT research programs
* Update the elective courses to reflect the most recent changes in best practices for implementation, project management, etc. learned from 2012 to 2024.
* Migrate the updated courses into AASHTO Technical Training Solutions (TTS) format
* Make all courses 508 compliant

**Scope of Work:**The proposed work will include the following tasks.1. Transfer ownership of AOTC course materials from NCHRP to AASHTO
2. Hire a contractor to update core course material
3. Update elective course material as necessary to current practices
4. Make core courses compatible / acceptable for the AASHTO TTS platform
5. Make the elective courses compatible / acceptable for the AASHTO TTS platform
6. Make all courses Section 508 Compliant and Accessible

**Major Benefits:**The major benefit of this study will be to provide a self-study version of AOTC for AASHTO RAC members / State DOT research personnel. This is important in that these RAC members are continually changing and a self-study format will provide the best opportunity for these members to get “Ahead of the learning Curve” when taking on the unique responsibilities of being a research manager. A secondary benefit will be a comprehensive, up-to-date resource for new and existing research managers with state DOTs. **Comments:**1. Suggested length of the pooled fund study is 18 months with an estimated cost of $500,000. Participation is requested to be $10,000 - $15,000 per year per state.
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