AdvancED® STEM Certification

Meeting the demands of the future

JOIN THE JOURNEY
AdvancED STEM Certification

There is a growing international effort to foster and perpetuate enthusiasm for science, technology, engineering and mathematics (STEM) disciplines. As the leader in quality education standards and an expert in engagement review, AdvancED has an unprecedented STEM certification program.

AdvancED STEM Certification provides a proven, research-based framework and criteria from which to assess and validate the quality, rigor, and substance of STEM educational programs. Through this certification protocol, institutions and programs build awareness, increase expectations, and demonstrate a commitment and ability to deliver high-quality STEM education.

AdvancED STEM Certification is a mark of STEM distinction and excellence for those institutions that are granted the certification.

AdvancED STEM Certification:

» **Combines** a self-assessment process based on a rigorous framework of STEM best practices, information gathering, and the identification of high-quality evidence, with an on-site certification review resulting in data-based findings and a comprehensive, customized report to improve STEM quality and learning.

» **Demonstrates** a school’s ongoing commitment and capacity to prepare students for STEM fields of study and work.

» **Communicates** to postsecondary business and industry leaders that the school is committed to driving higher levels of student achievement.

» **Requires** STEM leadership to engage stakeholders in an honest and continual evaluation of practices, instructional strategies, and learning conditions in order to achieve desired outcomes.

AdvancED STEM Certification Process

1. **STEM APPLICATION**

2. **INTERNAL REVIEW**

3. **EVIDENCE SUBMISSION**

- **STEM CERTIFICATION RENEWAL (5 YEAR CYCLE)**

4. **ON-SITE CERTIFICATION REVIEW**

5. **STEM CERTIFICATION RECOMMENDATION**

6. **STEM APPLICATION**
AdvancED STEM Standard and Indicators

STANDARD: STEM students have the skills, knowledge, and thinking strategies that prepare them to be innovative, creative, and systematic problem solvers in STEM fields of study and work.

STEM Learners

ST1.1 The STEM school/program supports non-traditional student participation through outreach to groups often underrepresented in STEM program areas.

ST1.2 Students work independently and collaboratively in an inquiry-based learning environment that encourages finding creative solutions to authentic and complex problems.

ST1.3 Students are empowered to personalize and self-direct their STEM learning experiences supported by STEM educators who facilitate their learning.

ST1.4 Students use technology resources to conduct research, demonstrate creative and critical thinking, and communicate and work collaboratively.

ST1.5 Students demonstrate their learning through performance-based assessments and express their conclusions through elaborated explanations of their thinking.

STEM Educators

ST1.6 The interdisciplinary problem-based curriculum includes a focus on real-world applications.

ST1.7 STEM educators collaborate as an interdisciplinary team to plan, implement and improve integrated STEM learning experiences.

ST1.8 STEM learning outcomes demonstrate students’ STEM literacy necessary for the next level of STEM learning and for postsecondary and workforce readiness.

ST1.9 STEM teachers and leaders participate in a continuous program of STEM-specific professional learning.

STEM Experiences

ST1.10 Community, postsecondary, business/industry partners, and/or families actively support and are engaged with teachers and students in the STEM program.

ST1.11 Students are supported in their STEM learning through adult-world connections and extended day opportunities.
About AdvancED

AdvancED is a non-profit, non-partisan organization serving the largest community of education professionals in the world. Founded on more than 100 years of work in continuous improvement, AdvancED combines the knowledge and expertise of a research institute, the skills of a management consulting firm and the passion of a grassroots movement for educational change to empower Pre-K-12 schools and school systems to ensure that all learners realize their full potential.