**The Virginia Department of Education**

**and**

**The State Council of Higher Education for Virginia**

# ESTABLISHING A GOVERNOR’SSCIENCE, TECHNOLOGY, ENGINEERINGAND MATHEMATICS (STEM)ACADEMY

**GUIDANCE DOCUMENT**

**Virginia Department of Education**

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**Acknowledgements**

 STEM literacy is an interdisciplinary area of study that bridges the four areas of science, technology, engineering, and mathematics. STEM literacy does not simply mean achieving literacy in these four strands or silos. Consequently, a STEM classroom shifts students away from learning discrete bits and pieces of phenomenon and rote procedures and toward investigating and questioning the interrelated facets of the world.

In order to establish a STEM focus in Virginia, the Department of Education (DOE) and the State Council of Higher Education for Virginia (SCHEV) embrace organizational practices that foster science, technology, engineering, and mathematics as an interdisciplinary area of study. Thus, the STEM support team members represent various positions throughout DOE and SCHEV.

 Members of the STEM support team are:

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## Virginia Board of EducationApproved Process for Initiating aGovernor’s Science, Technology, Engineering and Mathematics Academy

### Process for Initiating a Governor’s Science, Technology, Engineering and Mathematics AcademyApproved by the Virginia Board of EducationNovember 29, 2007

Developing and implementing the program and administrative arrangements for a Governor’s Science, Technology, Engineering and Mathematics (STEM) Academy involves extensive planning and discussions among the participating partners. Additionally, the Academy proposal must be reviewed by the State Council of Higher Education for Virginia (SCHEV) and approved by the Board of Education. Partners should take this process into consideration when preparing a planning and implementation timeline. The process includes the following steps:

1. The Governor’s STEM Academies must be partnerships of business and industry; public school divisions; and higher education institutions and may include local government, including workforce and economic development entities.
2. Partnerships desiring to implement a Governor’s STEM Academy shall provide the Virginia Department of Education (VDOE) with documentation of the following:
3. The existence of an active, ongoing Governor’s STEM Academy Planning Committee of superintendents or their designees from the participating school divisions and representatives from other partnering organizations. To the extent possible, these partners will come from existing regional industry advisory boards convened under the auspices of the regional workforce investment boards, community college workforce offices, and Career Pathways leadership teams convened by colleges and schools.
4. A statement that demonstrates the need/rationale for the Academy. This statement should be concise and state the important reasons to have a Governor’s STEM Academy that provides enhanced or additional offerings in science, technology, engineering, and mathematics (STEM), and career and technical education.
5. Identification of the fiscal agent, which must be a public school division.
6. A description of the proposed program, including site location, number of students, grade levels, and general curriculum design.
7. A written memorandum of agreement, among school divisions, local businesses, and postsecondary institutions, and any other partners. This agreement will suggest ways in which community resources will contribute to the Governor’s STEM Academy to broaden the scope of the students’ educational experiences.
8. A statement of assurance that the Governor’s STEM Academy Planning Committee has reviewed provisions of the attached *Administrative Procedures Guide for the Establishment of Governor’s STEM Academies* and agrees to follow the guidelines set forth in the document.
9. A statement of assurance that, if applicable, an ongoing Governing Board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs.
10. The Department of Education will review the proposal and documentation and forward the completed proposal to the State Council of Higher Education for Virginia (SCHEV).
11. The SCHEV Council will review the proposal to determine if it meets the criteria for a Governor’s STEM Academy, with particular focus on postsecondary components, and will make a report to the Council with recommendations. The Council will vote to recommend or not recommend the proposal to the Board of Education.
12. The Department of Education will make a report to the Board of Education with a recommendation, noting SCHEV’s recommendation in its report.
13. The Board of Education will approve or deny designation as a Governor’s STEM Academy.
14. At any point in the process, the applicant may withdraw its proposal from consideration and resubmit at a later time if desired.
15. The VDOE, Virginia Community College System (VCCS), and SCHEV will provide technical assistance to programs during the planning and implementation process as needed.

## Administrative Procedures GuideEstablishment of a Governor’s Science, Technology, Engineering andMathematics Academy

### Administrative Procedures Guide for theEstablishment of a Governor’s Science, Technology,Engineering and Mathematics Academy

1. **Introduction**

The Governor’s STEM Academies shall provide expanded options for the general population of students to acquire science, technology, engineering and mathematics (STEM) literacy and other critical knowledge, skills, and credentials that will prepare them for high-wage, high-skill, and in-demand careers in Virginia.

1. **The Role of the Department of Education**

The Department of Education will serve as a resource for these programs, providing technical assistance related to program and curriculum design, instructional strategies, and evaluation.

1. **Program Description**

Each Governor’s STEM Academy Planning Committee shall develop, cooperatively with local school divisions, business and industry, community, and higher education partners and have available for review and dissemination, a program description that includes the following:

1. Statement of program goals addressing the following criteria:
2. Incorporate rigorous academic content with career and technical instruction;
3. Have an emphasis on the STEM career pathway;
4. Develop individualized high school plans to ensure course selections that are aligned with students’ transition and career goals after high school;
5. Ensure that graduates complete a college and career readiness curriculum for a particular career pathway; and
6. Incorporate *Virginia’s 21st Century Workplace Readiness Skills for the Commonwealth*.
7. Statement of program objectives and performance measures to:
8. Improve academic achievement of students in the Academy;
9. Increase completion of dual enrollment courses;
10. Provide work-based learning experiences for students through strong partnerships with businesses;
11. Increase high school graduation rates;
12. Reduce dropout rates;
13. Increase enrollment and retention in postsecondary education;
14. Increase the proportion of students completing a college and career ready curriculum in high school;
15. Reduce the proportion of students requiring remediation in college;
16. Increase the number of industry certifications awarded to high school students; and
17. Increase the number of graduates employed in high-wage, high-skill, and in-demand careers.
18. Programs and course descriptions
19. At least two well-articulated career pathways must be included to meet the following criteria:
20. Each career pathway must include opportunities for students to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors, and graduate levels.
21. At least one career pathway must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and motor sports, as well as modeling and simulation and nanotechnology.
22. At least one career pathway must address regional and local workforce demand in a high-wage, high-skill field as identified by employers and workforce officials.
23. Of the two pathways described above, at least one must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or the state.
24. Additional career pathways may address one of the areas described above, or an area identified by the partnership as an area of interest, growth, or expansion for students in the service area of the Academy.
25. Academy graduates must achieve one or more of the following benchmarks:
26. Earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions such as College Level Examination Program (CLEP), collaboratively designed or mutually approved end-of course tests, college placement tests, or student portfolios reviewed by a team of college and high school faculty; or
27. Earn at least nine transferable college credits as defined in the Early College Scholars program (includes dual enrollment, Advanced Placement and other options); or
28. Earn an Associate Degree.
29. Significant work-based learning experience must be included, such as:
* job shadowing;
* service learning;
* mentorship;
* externship;
* school-based enterprise;
* internship;
* entrepreneurship;
* clinical experience;
* cooperative education;
* youth registered apprenticeship;
* registered apprenticeship; and
* supervised agricultural experience.
1. Length of program and daily schedule
2. Governor’s STEM Academies will be defined by program content, not by the location or delivery system of courses. Courses may be delivered on a high school, technical center or community college campus; online; or in other innovative ways.
3. Governor’s STEM Academies may be full-day or part-day, academic-year programs.
4. Assurances from the fiscal agent that ongoing operating funds and facilities are available to support the Governor’s STEM Academy and are adequate to meet the needs of the program.
5. Materials and equipment to be provided to accomplish program goals and objectives.
6. Evidence of an internal evaluation process to effect program improvement, including:
7. A review of the Academy’s policies, procedures, and outcomes;
8. A review of the program design and instructional delivery;
9. Consideration of feedback from students, staff, parents, the community, and partnership members; and
10. Annual collection and reporting of data to the Department of Education related to student achievement, goal achievement, and other indicators.
11. **Administrative Procedures**

Each regional Governor’s STEM Academy will maintain procedures developed cooperatively with participating partners that address the following areas:

1. Partnerships – The role of business and industry, public school divisions, and postsecondary institutions in the partnership. The role of workforce and economic development entities should also be included if they are among the partners.
2. Student recruitment, selection criteria, and admissions.
3. Code of student conduct and attendance.
4. Transportation provided by the school division or consortium that is in compliance with all applicable federal and state regulations.
5. Staff recruitment, selection, and assignment – The Governor’s STEM Academy shall hire personnel who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. Where applicable, they must have industry-specific education with training and experience, including industry certification.
6. Staff development – The program will provide appropriate staff training in addition to staff planning time.
7. Staff evaluation – Staff will be evaluated according to the human resources policies of the agency or institution employing Academy personnel.
8. Parent, student, and community involvement
9. Preparation for entering the Academy should begin by eighth grade.
10. Students, parents, teachers, and counselors should work collaboratively to:
	1. Complete career interest inventories;
	2. Prepare academic and career plans outlining an intended course of study in high school;
	3. Review multiple postsecondary pathways and the steps required to pursue them;
	4. Participate in career assessments to identify areas students should strengthen to qualify for their selected pathways; and
	5. Discuss available diploma seals, and other recognitions, as well as the requirements for admission to specialized programs including Governor’s Academies.
11. Documentation that insurance and other fiscal information will be provided.
12. **Evaluation**

The Department of Education will conduct an annual evaluation of each Governor’s STEM Academy.

## Technical Assistance Information

### Technical Assistance Information

1. **Background**

The Governor’s STEM Academies are intended to expand options for the general population of students to acquire science, technology, engineering and mathematics (STEM) literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand, high-wage and high-skill careers in Virginia. They must be developed and supported by partnerships consisting of public school divisions, postsecondary institutions, government, business and industry, and other appropriate entities.

These academies are the contextual learning complement to Virginia’s successful Governor’s School program. Governor’s STEM Academies offer career pathways addressing both immediate regional skill gaps and longer-term STEM-related strategic skill gaps identified by the state, through high standards, recognition, acceleration options and industry and higher education partnerships.

In 2007, Virginia received a $500,000 grant from the National Governors Association Center for Best Practices (NGA Center) to improve science, technology, engineering and mathematics (STEM) education. The NGA grant, along with state matching funds, provided the basis to assist six partnerships in establishing the first Governor’s Career and Technical Academies in Virginia.

The NGA grant funding is not a prerequisite for partnerships to submit a proposal to the Virginia Board of Education for consideration as a Governor’s Career and Technical Academy. Any partnerships that meet the criteria approved by the Board and outlined in this document are eligible to submit a proposal to the Board. Funding for implementation of the STEM academies are provided locally.

1. **Purpose**

The Governor’s STEM Academies expand options for the general population of students to acquire STEM literacy and other critical knowledge, skills and credentials to prepare them for high-wage, high-skill, and in-demand careers in Virginia and in the world. Governor’s STEM Academies may be new programs or existing programs in which standards are raised and efforts are refocused to advance Virginia’s STEM agenda. Partnerships among school divisions, industry, higher education and regional workforce officials are integral to the Academy model.

1. **Eligibility**

The Governor’s STEM Academies must be partnerships of business and industry; public school divisions; and higher education institutions; and may include local government, including local workforce and economic development entities. All partners must be confirmed and active in order for a partnership to be eligible to submit a proposal to develop an Academy.

In some cases, Academies may be Joint Schools as provided for in the *Code of Virginia*, and will include representation from multiple school divisions within a region on the governing board. The fiscal agent for the project must be a public entity. To qualify as a Governor’s STEM Academy, providers will be required to have an advisory committee including those listed in partnerships.

Academies must meet criteria established by the Virginia Board of Education for Governor’s STEM Academies.

Developing and implementing the program and administration arrangements for a Governor’s STEM Academy involves planning and discussions among the participating partners. Additionally, the Academy proposal must be reviewed by the State Council of Higher Education for Virginia (SCHEV) and approved by the Board of Education. Partners should take this process into consideration when preparing a planning and implementation timeline. An electronic copy (WORD) of the proposal should be submitted at least six months prior to the anticipated opening date of a proposed academy.

1. **Assistance**

The VDOE, Virginia Community College System (VCCS), and SCHEV will provide technical assistance to programs during the planning and implementation process as needed. For questions or additional assistance, contact:

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## Virginia Department of EducationGovernor’s Science, Technology, Engineeringand Mathematics Academy’sProposal Review Checklist

### Virginia Department of EducationGovernor’s Science, Technology, Engineering andMathematics Academy’sProposal Review Checklist

1. **Partnership Capacity**

**Partnerships desiring to implement a Governor’s STEM Academy shall provide the Department of Education with evidence of the following:**

1. An active, ongoing Planning Committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity. At a minimum, members must represent school divisions (superintendent or designee), higher education, community, and business and industry. All partners must be represented on the committee.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. An Advisory Committee, including a list of members and signed certifications from each that they are willing and able to serve in the capacity.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. A written memorandum of agreement among school divisions, local businesses, postsecondary institutions, and any other partners that outlines ways in which community resources will contribute to the Governor’s STEM Academy to broaden the scope of students’ educational experiences.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. A statement of assurances that the Governor’s STEM Academy Planning Committee has reviewed provisions of *Administrative Procedures Guide for the Establishment of Governor’s STEM Academies* and agrees to follow the guidelines set forth in the document (see appendix).

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. A statement of assurances that, if applicable, an ongoing Governing Board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs (see appendix).

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Need/Rationale for the Academy**

**Partnerships desiring to implement a Governor’s STEM Academy shall provide the Department of Education with evidence of the following:**

1. Demonstration of the need/rationale for the Academy. This statement should be concise and state the major reasons to have a Governor’s STEM Academy, including need at the state, local, and/or regional levels.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. A description of the enhanced or additional offerings in science, technology, engineering, mathematics (STEM) as well as in career and technical education that will meet the need described above.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. A fiscal agent that is a public school division, including a certification that the entity is willing and able to serve in that capacity.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Program Description**

**Each Governor’s STEM Academy Planning Committee shall develop cooperatively with local school divisions, business and industry, community, and higher education partners and have available for review and dissemination, a program description.**

1. **A statement of program goals addressing the following criteria:**
2. Rigorous academic content with career and technical instruction;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. An emphasis on the STEM career pathways;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Individualized high school plans to ensure course selections that are aligned with students’ transition and career goals after high school;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Evidence that graduates will complete a college and career readiness curriculum for a particular career pathway; and

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Incorporation of *Virginia’s 21st Century Workplace Readiness Skills for the Commonwealth*.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **A statement of program objectives and performance measures to:**
2. Improve academic achievement of Academy students;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Increase completion of dual enrollment courses;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Provide work-based learning experiences for students through strong partnerships with businesses;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Increase high school graduation rates;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Reduce dropout rates;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Increase enrollment and retention in postsecondary education;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Increase the proportion of students completing a college and career readiness curriculum in high school;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Reduce the proportion of students requiring remediation in college;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Increase the number of industry certifications awarded to high school students; and

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Increase the number of graduates employed in high-wage, high-skill, and in-demand careers.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **A brief description of the proposed program, including:**
2. Site location;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Number of students to be served;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Grade levels;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Curriculum design including CTE and academic;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. List of courses to be delivered;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Description of how/where the courses will be delivered. Courses may be delivered on a high school, technical center or community college campus; online; or in other innovative ways; and

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Designation of full-day or part-day, academic-year program.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Program and course descriptions:**

**D.1. At least two well-articulated career pathways must be included that meet the following criteria for Pathway #1:**

1. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors, and graduate levels. These pathways may be in the same or different career clusters.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Must address regional and local workforce demand in high-wage, high-skill fields as identified by employers and workforce officials.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. At least one pathway must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or state.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

**Pathway #2**

1. Each career pathway must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors, and graduate levels. These pathways may be in the same or different career clusters.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Must address regional and local workforce demand in a high-wage, high-skill field as identified by employers and workforce officials.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Of the two pathways described, at least one pathway must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or state.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Additional career pathways may address one of the areas described above, or an area identified by the partnership as an area of interest, growth, or expansion for students in the service area of the Academy.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

**E.2. List of all requirements for successful program completion:**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

**E.3. Academy graduates must achieve one or more of the following benchmarks:**

1. Earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions such as CLEP examinations, collaboratively designed or mutually approved end-of-course tests, college placement tests, or student portfolios reviewed by a team of college and high school faculty; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Earn at least nine transferable college credits (includes dual enrollment, AP and other options); **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Earn an Associate Degree.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

**E.4. Significant work-based experience must be included representing additional instruction or training beyond the classroom such as:**

1. Job Shadowing; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Service Learning; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Mentorship; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Externship; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. School-Based Enterprise; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Internship; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Entrepreneurship; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Clinical Experience; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Cooperative Education; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Youth Registered Apprenticeship; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Registered Apprenticeship; **or**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Supervised Agricultural Experience.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Length of program and daily schedule**

**Governor’s STEM Academies are defined by program content, not by the location or delivery system of courses.** **Designation of full-day or part-day, academic-year program**.

**Evidence of the following must be submitted:**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Assurances from the fiscal agent that ongoing operating funds and facilities are available to support the Governor’s STEM Academy and are adequate to meet the needs of the program.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Materials and equipment to be provided to accomplish program goals and objectives.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **A brief description of the proposed program, including:**
2. A review of the Academy’s policies, procedures, and outcomes;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. A review of the program design and instructional delivery;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Consideration of feedback from students, staff, parents, the community, and partnership members, and

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Annual collection and reporting of data to the Department of Education related to student achievement, goal achievement, and other indicators.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Administrative Procedures**

**Each Governor’s STEM Academy must develop and maintain procedures developed cooperatively with participation partners. There should be evidence of procedures in the seven areas that follow:**

1. **Partnerships – The role of business and industry, public school divisions, and postsecondary institutions in the partnership, where appropriate should include the role of local workforce and economic development entities.**

**Full** **[ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Student recruitment, selection criteria, and admissions.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Code of student conduct and attendance.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Transportation provided by the school division or consortium that is in compliance with all applicable federal and state regulations.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Staff recruitment, selection, and assignment – The Governor’s STEM Academy shall hire staff members who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. Where applicable, they must have industry-specific education with training and experience, including industry certification.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Staff development – The program will provide appropriate staff training in addition to staff instructional planning time.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Staff evaluation – Staff will be evaluated according to the human resources policies of the agency or institution employment Academy personnel.**

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Parent, student and community involvement**
2. Preparation for entering the Academies should begin by eighth grade.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. Students, parents, teachers, and school counselors should work collaboratively to:

Complete career interest inventories;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

* 1. Prepare academic and career plans outlining an intended course of study in high school;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

* 1. Review multiple postsecondary pathways and the steps required to pursue them;

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

* 1. Participate in career assessments to identify areas students should strengthen to qualify for their selected pathways; and

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

* 1. Discuss available diplomas, seals, and other recognitions including admission to specialized programs such as Governor’s Academies.

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

1. **Documentation of insurance, budget, and other fiscal information:**

Insurance

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

Budget (from appendix)

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

Budget Narrative

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

Other

**Full [ ]**

**Partial [ ]**

**None [ ]**

**Comments:**

## State Council of Higher Education’sGovernor’s Science, Technology, Engineeringand Mathematics Academy’sPostsecondary Checklist

### State Council of Higher Education for Virginia

The State Council of Higher Education for Virginia (SCHEV) has been asked by the Board of Education to participate in the review process for the Governor’s Science, Technology, Engineering and Mathematics (STEM) Academies. The SCHEV review will focus on postsecondary and business/industry partnerships of the proposed Academy. In conducting its review, SCHEV staff will utilize criteria from the *Governor’s STEM Academies Postsecondary Curriculum Review Checklist*, and forward its recommendation to the Council for approval or disapproval, with the proviso that approval may be conferred by the Council’s Executive Committee, or by the Executive Director, if necessary to meet Board of Education deadlines. SCHEV approval or disapproval will be incorporated into the Department of Education’s final review and recommendation to the Board of Education.

For additional information about SCHEV approval, contact:

Joseph DeFilippo

Director of Academic Affairs and Planning

State Council of Higher Education

(804) 225-2629

JoEDefilippo@schev.edu

### State Council of Higher Education for VirginiaGovernor’s STEM Academy’s Postsecondary Curriculum Review Checklist

**Academy Name:**

**Collaborating Partners:**

**Total Funds Requested:**

**Allocated Funds for Postsecondary Component:**

**Category 1: Postsecondary Accreditation and Approvals**

1. Postsecondary institution is appropriately accredited.

1. Proposed postsecondary program has specialized accreditation if applicable.

1. Proposed postsecondary program is SCHEV and/or VCCS approved.

1. Proposed postsecondary program will be seeking SCHEV and/or VCCS approval.

**Category 2: Governor’s STEM Academy Requirements**

1. Evidence of a partnership with a postsecondary institution, business, or industry, and demonstrated roles for each entity.

1. Offers at least one career pathway in a field identified by a statewide authority or organization as a strategic growth area of Virginia.

1. Offers at least one career pathway addressing regional and local workforce demand in a high-wage, high-skill field identified by employers and workforce officials.

1. At least one of the two career pathways is in a STEM-related field.

**Category 3: Postsecondary/Business Component Requirements**

1. Provides opportunities for students to earn industry credentials or state licensure, associate or baccalaureate degrees, and college credit for work-based learning experiences.

1. Articulates with baccalaureate programs or to higher levels of training or professional credentialing.

1. Demonstrates P-16 integration including curriculum development with high school, college, and university faculty (desired).

1. Includes college faculty as adjunct faculty of the academy (desired).

1. Provides opportunities for students to participate in work-based learning experiences.

**Category 4: Academic Quality**

1. Requires appropriate postsecondary faculty qualifications.

1. Requires faculty to hold industry certification, where necessary.

1. Planned professional development for faculty and administrators.

1. Planned systemic program and learning outcomes assessment.

**Category 5: Administration and Funding**

1. Funding is sufficient to support effective administrative and operational needs including materials, administrative.

1. Funding is sufficient to sustain faculty salaries, curriculum development costs, and instructional materials and delivery.

1. Facilities possess the necessary physical attributes to deliver the instructional program (classroom space, technology, labs, equipment).

## Appendices

### Governor’s Science, Technology, Engineering and Mathematics (STEM) Academy

#### STATEMENT OF ASSURANCES

The authorized signature on this page certifies to the Virginia Department of Education that the authorized official assures that:

1. The planning committee has reviewed the provisions of *Administrative Procedures Guide for the Establishment of Governor’s STEM Academies* outlined in the Guidance Document, and understands that an implementation proposal will need to address these criteria and/or others approved by the Virginia Board of Education.
2. The planning committee agrees to follow the guidelines set forth in the *Administrative Procedures Guide for the Establishment of Governor’s STEM Academies* document.
3. If the Governor’s STEM Academy will be a jointly-operated program of at least two school divisions, an ongoing governing board will be established or maintained to reflect current Board of Education regulations relative to jointly-operated schools and programs.
4. A public school division will serve as the grant fiscal agent.

Certification by Authorized or Institutional Official:

The applicant certifies that to the best of his/her knowledge the information in this application is correct, that the filing of this application is duly authorized by the partners participating in this process to establish a Governor’s STEM Academy, and that the applicant will comply with the statements of assurances.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Typed or Printed Name of Authorized Official Title

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Authorized Official Date

(copy as needed)

**Governor’s Science, Technology, Engineering and**

**Mathematics (STEM) Academy**

#### STATEMENT OF ASSURANCES SUMMARY

*(Leave blank – to be completed by the VDOE)*

The certification by authorized or institutional officials is held on file by the VDOE.

The applicant certifies that to the best of his/her knowledge the information in this application is correct, that the filing of this application is duly authorized by the partners participating in this process to establish a Governor’s STEM Academy, and that the applicant will comply with the statements of assurances.

Name Title

**GOVERNOR’S STEM ACADEMY**

#### START-UP BUDGET

| **A – Direct Costs** | **Local Funds** | **Other Funds (Local or grant funds to be described in Budget Narrative)** | **State Funds** | **Perkins Funds** | **In-Kind** |
| --- | --- | --- | --- | --- | --- |
| * + - 1. Personnel --- 1000
 |       |       |       |       |       |
| * + - 1. Employment Benefits --- 2000
 |       |       |       |       |       |
| * + - 1. Purchased/Contractual Services

---- 3000 |       |       |       |       |       |
| * + - 1. Internal Services ---- 4000
 |       |       |       |       |       |
| * + - 1. Staff Development ---- 5000
 |       |       |       |       |       |
| * + - 1. Summer Component Activities

---- 5000 |       |       |       |       |       |
| * + - 1. Travel ---- 5000
 |       |       |       |       |       |
| * + - 1. Contractual Services ---- 5000
 |       |       |       |       |       |
| * + - 1. Materials and Supplies ---- 6000
 |       |       |       |       |       |
| * + - 1. Equipment ---- 8000
 |       |       |       |       |       |
| * + - 1. Facilities ---- 8000
 |       |       |       |       |       |
| **B – Indirect Costs \*** |       |       |       |       |       |
| **TOTAL** |       |       |       |       |       |

* If recovering indirect costs, the rate must not exceed the state approved indirect cost rate of the fiscal agent.