

**DRAFT: OUTREACH AND PRECOLLEGE PROGRAMS: STUDENT-TEACHER-FACULTY PARTNERSHIPS**

Inputs	Strategies	Outputs	Outcomes		Impacts (Long Term-Conditions)
			(Short Term-Learning)	(Medium Term-Action)	
High school teachers High school students William & Mary Education students Summer funding for high school teachers and students Faculty from W&M and TNCC Salary support from institution Salary support from external funding (HHMI) Mechanisms for tracking and evaluation Laboratory space Equipment Material for modules to be used in high school classrooms Research supplies	Provide support for local high school teachers to participate in ongoing faculty research projects at W&M Modify projects used in W&M's Introductory Biology classes for use in high schools Develop tools to use for classroom demonstrations, science fair projects, active learning through original experiments and enrichment activities for students Organize teams to allow teachers to work with W&M and community college faculty Encourage teachers to invite high school students to participate in teacher-student teams Provide flexible scheduling to accommodate summer child care needs Partner with W&M School of Education to involve students funded through Noyce and Teachers for a Competitive Tomorrow grants	Number of teaching modules developed for use in high school science classes Number of high school teachers and students who participate in program Number of William & Mary education students who conduct summer internships as part of a student-teacher team	Teacher-student teams engage in discovery-based research Teacher-student teams develop tools to use for classroom demonstrations, science fair projects, active learning through original experiments and enrichment activities for students Topic developed for summer continuing education and update course Students become engaged and excited about research and science Collaborations between faculty and students in Arts and Science and the School of Education	Teachers use modules in high school classrooms during the academic year Projects align with Virginia SOLs High school experiences enriched through modules and tools developed during summer experience Material developed by teachers disseminated in more structured coursework Teachers participate as lead teacher in summer course Teachers present at meetings Teachers serve as lead teachers in school Students continue with research, e.g. with a science fair project Increase quality and quantity of collaborations between the College of Arts and Science and the School of Education	Increase the ability of teachers to offer laboratory exercises involving authentic research Synergize resources and efficiency between W&M, community college faculty and local high school teachers Establish lasting connections with local high schools Establish formal and lasting connections and collaboration with School of Education

**DRAFT: OUTREACH AND PRECOLLEGE PROGRAMS: STUDENT-TEACHER-FACULTY PARTNERSHIPS**

Evaluation Questions for OUTCOMES	Possible Indicators/Measures	Possible Data Collection Methods and Information Sources	Rank/Priority (include brief rationale)
<p>1. Are the tools developed in the program used by the teachers in their classrooms and are they disseminated to others?</p> <p>2. Do high school teachers use projects to offer laboratory exercises involving authentic research?</p> <p>3. Do changes in classroom activities lead to enhanced student learning and enthusiasm about science?</p>	<p>1 a. Teacher-student teams develop tools to use in classroom and science-related activities b. Projects used in W&amp;M's Introductory Biology classes are modified and used in high schools c. Topic is developed and disseminated in summer continuing education and update course</p> <p>2. b. Teachers adjust lesson plans to include modified projects in high school classroom activities c. Teachers align inquiry-based exercises with SOLs d. Teachers access web labs and other material for use in classroom</p> <p>3 a. Student learning is enhanced by introduction of inquiry-based exercises b. Exercises stimulate interest and enthusiasm for science</p>	<p>1 a. List of tools developed by teacher-student teams b. W&amp;M Introductory Biology course syllabus c. End of summer program survey d. Continuing education and update course syllabi</p> <p>2 a. Lesson plans that include new tools and projects b. Science fair projects and other activities that incorporate projects from summer program c. Documentation of wet lab use by teachers d. Continuing education and update course syllabi e. SOLs</p> <p>3 a. Standardized test scores b. Classroom-based test scores c. Student survey d. Revisions to science-related activities based on assessment results e. Interviews with teachers f. Observations by W&amp;M Education and Biology students g. Interviews with teachers h. Teacher survey</p>	<p>Evaluation questions are ranked in order of how quickly an effect is expected to be seen. However data for all outcomes will be collected simultaneously.</p>