Establishing an EnvironMentors Chapter at St. Mary’s College of Maryland

ENST450: Applied Sustainability Practicum

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EnvironMentors

EnvironMentors is a national environment-based mentoring program developed by the National Council for Science and Environment (NCSE). The program provides underrepresented high school students the opportunity to work with undergraduates, researchers and professionals to develop scientifically rigorous research projects. The program also provides high school students with college access and opportunities for careers within science, technology, engineering, and mathematics (NCSEonline.org).

Students from local high schools work one-on-one with a mentor to develop and conduct an environmental research project over the course of the academic year. Mentors guide their student through all stages of the scientific method including posing a question, completing background research, designing an experiment, and presenting the findings at the EnvironMentors Science Fair. The fair is an opportunity for the students to share what they’ve learned and their experiences with the local scientific community. The projects will be judged and the top three students get the chance to compete at the National EnvironMentors Fair in Washington D.C. for scholarship prizes.

Environmental Education has been shown to increase student aptitude in STEM subject areas.

St. Mary’s County Public Schools

- SMCPSc provides opportunities for all students to gain access to STEM related experiences, but is exclusive in the fact that it is reserved to those who are “highly able”, “focused”, and “most likely to succeed” determined by an application process (SMCPSc.org).
- The Biology High School Assessment is a graduation requirement in St. Mary’s County. These are the students at risk for not graduating in 2016 (MDK12.org):

<table>
<thead>
<tr>
<th></th>
<th>Passed</th>
<th>Not Passed</th>
<th>Not Yet Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>9.44%</td>
<td>9.35%</td>
<td>22.62%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9.30%</td>
<td>9.30%</td>
<td>24.34%</td>
</tr>
<tr>
<td>Asian</td>
<td>9.41%</td>
<td>9.03%</td>
<td>23.35%</td>
</tr>
<tr>
<td>African American</td>
<td>9.51%</td>
<td>9.62%</td>
<td>22.80%</td>
</tr>
</tbody>
</table>

St. Mary’s County 2015 High School Students in STEM

STEM students are more likely to prefer attending a small or medium-sized college that is close to home, compared to non-STEM students.

Diversity at SMCM

St. Mary’s College of Maryland is committed to providing a liberal arts education to all students regardless of their race gender culture, sexual orientation, or socioeconomic status (SMCM.edu).

The DeSouza-Brent Scholars program actively recruits underrepresented students to attend SMCM. They could be natural mentors for the EnvironMentors program, helping to mend the achievement gap in STEM related fields.

Research suggests that EnvironMentors students develop:

- Improved scientific research skills
- Increased awareness of STEM career paths
- Confidence in ability to study science
- Increased self confidence

Hispanics and non-Hispanic blacks have over the past decade been underrepresented in U.S. jobs in STEM fields in large part because of the lack of equality in education opportunity.

National 20-Yr. Trends in STEM Interest by Ethnicity

National 20-Yr. Trends in STEM Interest by Gender

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References: