



Georgia Highlands College – USG STEM Initiative STEM Education Improvement Plan

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Abstract:

Georgia Highlands College (GHC) is a state college of the University System of Georgia (USG) with a mission to provide access to excellent educational opportunities for the intellectual, cultural and physical development of a diverse population. Through pre-baccalaureate associate transfer programs, career associate degree programs, and targeted baccalaureate degree programs, GHC will meet the economic development needs of Northwest Georgia. GHC has six physical campuses and an online campus that serve a diverse population of traditional and non-traditional students. GHC provides a dynamic teaching and learning environment that prepares students to thrive in a global society. The vision of GHC is to be the premiere public, multi-campus institution of choice throughout our region, while serving as the state leader in transfer and retention within our sector. The Division of Natural Science and Physical Education and the Division of Mathematics and Computer Science, in support of the mission of the college offers high quality course that are part of the USG core curriculum and associate degree programs. With the need for a well-trained diverse STEM workforce, the divisions are committed to enhancing recruitment, retention, and completion services for students.

As with other access institutions, the goal of the past was to get students into the pipeline. The focus today has shifted to completion. Use of the National Student Clearinghouse and more detailed transfer reports from the USG have enabled the college to delve more deeply into the educational pathway of our students, providing a richer and more detailed picture of our student body. According to GHC's Achievement Data, GHC reported to Complete College Georgia an approximate 3% enrollment growth from fall 2009 through fall 2011 with final enrollment of 5500 students. Fall-to-fall enrollment remained essentially flat until fall 2014 when enrollment declined by 2.3% to 5365 students. For fall semester 2015 however, reports an official 7.1% increase in enrollment, the highest among state colleges. Our total enrollment fall 2015 was 5746 of which 62.6% are female and 37.4% are male. The race/ethnicity of our student population is predominately White (67.0%) followed by Black (17.1%), Hispanic (11.2%), and all others (4.7%). Approximately 53.3% of the students at GHC are enrolled part-time while 46.7% are full-time enrolled. Most of our students are Georgia residents (96.0%).

GHC's Complete College Georgia Plan is directly tied to the demographics of the student body and the access mission of the college. GHC has implemented the following innovative strategies as part of the Complete College Georgia Initiative: 1) Increase Partnerships with K-12 Entities, 2) Improve Access and Completion for Students Traditionally Underserved, 3) Shorten Time to Degree Completion, 4) Restructure Instructional Delivery, and 5) Transform Remediation Courses. Along with GHC's internal research, the data provided by the USG has been extremely helpful in further identifying strengths and areas for improvement. One area of strength for GHC is the successful completion of learning support courses. GHC traditionally has high success rates for students exiting

learning support as compared to other USG institutions. However, areas for improvement include retention and graduation. Non-residential access institutions such as GHC have traditionally lagged behind in this area, for a wide variety of reasons (academic, personal, occupational, etc.). The Complete College Georgia initiative and the USG STEM Initiative STEM Education Improvement Plan provide the college with the opportunity to be creative as well as strategic in addressing these areas of improvement and in goal setting for the future. To that end, the Georgia Highlands College USG STEM Initiative STEM Education Improvement Plan goals are: (1) to improve STEM college readiness for P-12, and (2) to improve performance and retention in STEM core courses and majors. The implementation team consists of GHC faculty, staff, students and administration, local school systems and community partners.

To improve STEM readiness for the P-12 community, the team will implement high impact strategies of aggressive recruitment from historically underrepresented groups. We will also provide information and support to the P-12 community with resources through the GHC Center for STEM Learning (CSL). The CSL will generate STEM program maps that will be distributed to students and counselors in local high schools to promote “STEM readiness” as student’s transition to college.

To improve performance and retention in STEM courses and majors, the Georgia Highlands College Center for STEM Learning is being established in Fall 2016. The CSL will be both a physical center on the GHC Cartersville campus and a virtual center with resources available as open source. Program maps will also be present at open houses and orientations to assist students in choosing course to stay “on track” for completion. The CSL will house contact resources, social media outreach, tutorial videos, recruiting information, program maps and career guidance. The CSL will work with the MOWR recruiter, student success office and the tutorial center to provide services to the STEM majors. This effort will be led by the Advising Specialist for the Division of Natural Science.

Upon the completion of this program, we expect to see significant increases in the number of STEM majors, increase in the number of “STEM-ready” majors, and increase diversity in the number of STEM majors. Furthermore, the goal is to increase retention and of STEM majors, increase success in STEM courses and increase the number of STEM majors that complete an Associates of Science Degree Program. Following completion, we will track students for an additional year as they either enter the STEM workforce or transfer into a 4-year STEM program. We plan on expanding this program by providing access to the data through the STEM Network and through the GHC-CSL.