

Enriching the Academic Experience of College
Science Students Conference,
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The CSTEP/LSAMP Four-Year Curriculum
at Stony Brook University



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Presentation Outline

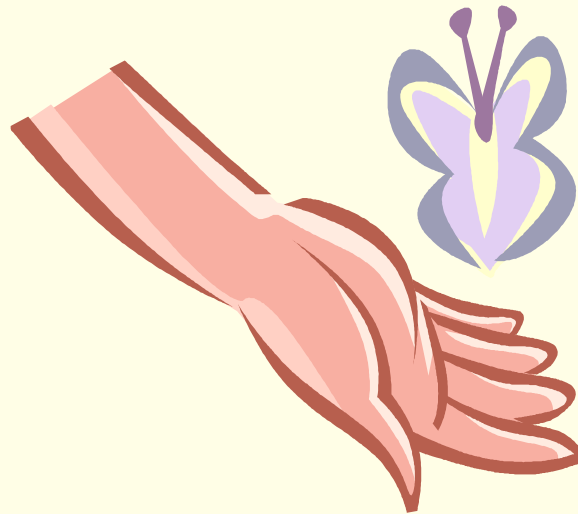
- Abstract
- Vision Statement
- Mission Statement
- Rationale
- CSTEP and LSAMP at Stony Brook
- 2006-2007 Program Snapshot
- Tools and Activities
- Curriculum Components
- Acknowledgements
- Questions

Abstract

- Serve students who exhibit varying levels of academic achievement
- Accommodate a broad and diverse range of academic interests
- Help students early in their academic careers
- Address student needs
- Provide foundational skills
- Strengthen specific skills
- Stress a regimen of study and career building skills

Vision Statement

- Our vision is to help each and every student in our programs achieve their fullest potential



Mission Statement

4 Goals of the Four-Year Curriculum

1. Help underrepresented minority and economically disadvantaged students in STEM majors prepare for eventual enrollment in graduate school and/or provide them with the skill set necessary to easily gain employment in the field of their choice.
2. To foster an environment that leads to the building of a strong campus identity which creates a community of CSTEP and LSAMP student scholars.

Mission Statement

4 Goals of the Four-Year Curriculum cont.

3. Instill a sense of motivation that will not require the use of inducements to get junior and senior students to participate in program activities.
4. To equalize the privileges to students in the programs.

Meeting Student Needs

- 1st year → Provide students with a full range of academic survival skills.
- 2nd year → Provide students with research skills.
- 3rd year → Provide students with experiences that will enhance graduate school and/or employment applications.
- 4th year → Provide students with career building and life planning skills.

2006-2007 Program Snapshot

- **297 CSTEP Students 52 of whom are also in LSAMP**
- **170 Females**
 - 110 African American
 - 53 Latina Hispanic
 - 7 Asian
- **127 Males**
 - 73 African American
 - 47 Latino Hispanic
 - 5 Asian
 - 2 Caucasian

2006-2007 Program Snapshot cont.

Majors

- Computer Science 18
- Engineering 43
- Health Science 59
- Liberal Arts 36
- Life Science 88
- Math 12
- Physical Science 9
- Psychology 26
- Social Work 6

2006-2007 Graduates

- 77 Students Graduated in 2007
- 64% Reported on their post-graduation plans
- 24 reported that they are attending a graduate or professional schools
- 20 Reported that they are employed
- 10 Were inducted into National Honor Societies
- 6 Graduated with Academic Honors

Program Tools and Activities

- General Body Meetings
- Special Seminars
- Math Focus Seminars
- Study Groups
- Conferences
- Advisers
- Mentors
- Research Placements
- Internships

Program Tools and Activities cont.

- Web Page www.sunysb.edu/ampcstep
- Blackboard
- Student Recognition Program
- Student Societies
- Student Resource Center
- Data Capture and Tracking
- TGIF and TGITH Gatherings
- Recruitment
- Summer Bridge
- Informational Mailings before each Semester

Freshman Program 1st Semester

“Success 101”

- Time Management
- Organization Strategies
- Note-taking Skills-Concept Mapping
- Test Preparation-Memory Techniques
- Understanding Course Expectations
- Reading Skills and Using the Library
- Maintaining Physical and Mental Health
- Using Professors as a Resource

Success 101 Results

- Success 101 vs. Non- Success 101 Fall Semester GPA
 - 2006 Cohort: 3.13 vs. 2.69
 - 2007 Cohort: 3.00 vs. 2.68
- Success 101 Pre and Post Surveys
 - 5-point Likert Scale & open-ended questions
 - At pre-test, students recognize importance of time management and goal setting to success
 - At post-test, Success 101 credited with helping students take advantage of available resources, set goals, and learn time management techniques
 - For both cohorts, importance ratings increased for organizing course material*, identifying big ideas, understanding connections, time management, tutoring, concentration skills and working practice*; decreased importance rating for note taking skills & study groups*.

* significant t-test

Freshman Program 2nd Semester

CAR 110

- Exploring career fields
- Deciding on a major
- Decision making
- Explore choices
- Setting goals and pursuing them
- Self-assessment

CAR 110 Results

- CAR 110 Pre and Post Surveys
 - 5-pt Likert Scale
 - At pre-test, students report having some familiarity with how to research an occupation, how personal interests/values/skills relate to careers, having to talk to people in fields of interest, what networking is, and the use of Career Center programs/services.
 - At post-test, endorsements for all items increased; especially student confidence in ability to verbally articulate accomplishments and potential, professional presentation skills, as well as ability to set career goals and develop action plans to achieve
 - Students consistently recognized (from pre- to post-) the difference getting career-related experience during college can make in marketability after graduation.

Sophomore Program 1st Semester

- What is research
- Ethics of research
- Passion for research, discovering a topic of pursuit
- Communication in research
- Conducting a literature review
- Qualitative methods in research design
- Quantitative methods in research design
- Mixed methods in research design
- Analysis of a journal article
- Poster design and presentation

Sophomore Program 2nd Semester

CAR 210

- Networking.
- Theories of career decision making.
- Strategies for a successful job & internship search
- Resumes from the recruiter's perspective.
- Targeted campaigning using well written cover letters
- Informational interviews as a networking tool
- Interviewing Techniques
- Finalizing a game plan
- Success in the Workplace.

Junior Program 1st Semester

- AGEP Collaboration and Inculcating Graduate School Awareness
- Writing to Win Workshop for NSF grants and fellowships
- Dinner Conversations about Graduate School
- Gathering of Science Scholars Conference

Junior Program 2nd Semester

- Standardized test prep workshops for students going onto graduate school and/or professional school

Senior Program 1st Semester

- Showcasing your Talents
- Resume Writing, Effective Cover Letters, and Personal Statements
- Thinking more about Graduate School
- What Makes an Attractive Candidate for Graduate School and/or Employment
- Asking for Recommendation Letters

Senior Program 2nd Semester

- Financial Planning
- Saving for the Future
- Tracking Personal Spending
- Insurance and Financial Security
- Mortgages
- Establishing Credit
- Monitoring your credit report
- Managing student loans and debt elimination strategies
- Goal purchases: Cars, homes and other major expenses

Program Costs

- Incorporating
- Collaborating
- Partnerships
- Begging

Conclusions (Best Practices)

- Delivery
- Consistency
- Survey
- Coherency
- Credibility

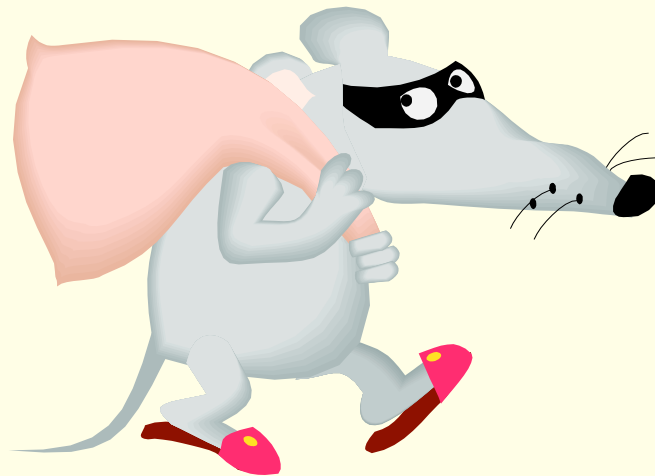
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Questions



