Mar 9th, 10:25 AM - 10:45 AM

The GPC & AMC MESA Program

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Atlanta Metropolitan College

Kouok Law
Georgia Perimeter College

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The Georgia Perimeter College and Atlanta Metropolitan College
MESA Programs

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Georgia Scholarship of STEM Teaching & Learning Conference
Georgia Southern University
March 09, 2012 | Statesboro, Georgia
The MESA program began in California

The USG assumed management of Georgia MESA starting FY-2008

Georgia MESA Pilot Program

- Atlanta Metropolitan College
- Georgia Perimeter College
- Darton College
- South Georgia College
PURPOSE OF MESA

- Prepares educationally disadvantaged students for four-year, math-based degrees
- Develops academic and leadership skills
- Focuses on historically underrepresented students in four-year and graduate level programs
- Assists students to bridge to four-year institutions
- Provides undergraduate research experiences
MESA COMPONENTS

- **MESA learning and implementation models**
  - MESA Center
  - Academic Excellence Workshops (AEW: Problem-Based Learning)
  - Leadership in Science and Research Training courses
- **Student activities:**
  - University/Industry Tour
  - STEM Day
  - Professional etiquette training
  - Counseling sessions
  - Financial Incentives
  - Tutoring in STEM areas
Description of Components:

**Recruitment**
- MESA-Brochures and Applications
- Visits to STEM classes and STEM Day events
- MESA Club participants
- Formal Interviews for MESA scholars
- Recruitment done Spring and Fall Semesters

**Selection Criteria**
- Underrepresented minority STEM majors
- Academic Excellence Workshop attendance
- Registration in the Topics in Science Leadership and Research course
Enrichment Activities

- **MESA Center**
  - Dedicated to MESA activities
  - Studying and computing facilities

- **Advisement**
  - MESA Faculty Advisor
  - One hour group academic counseling
  - Must complete Degree Transfer worksheet
  - Portfolio containing Three Year Education and Career Plan
Research and Bridging

- Summer Internships
- Research Conferences
- Topics in Science Research Paper and Presentation
- Visits to STEM Related Industries and Research facilities (Government and Universities)
GPC-MESA Results
GPC MESA Students & Faculty
<table>
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<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
<th>Total</th>
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<td>379?</td>
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<td>FY-2013</td>
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<td>32?</td>
<td>28?</td>
<td>72?</td>
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<td>56</td>
<td>131</td>
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## GPC-MESA Cumulative GPA

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<th>2009</th>
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<td>21.1%</td>
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<tr>
<td>2.0≤CGPA&lt;2.5</td>
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<td>18.7%</td>
<td>20.4%</td>
<td>13.6%</td>
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<tr>
<td>CGPA&lt;2.0</td>
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<td>7.1%</td>
<td>7.3%</td>
<td>3.2%</td>
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# GPC-MESA STEM Grades

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<th>MESA #</th>
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<th>MESA ABC %</th>
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<td>74.3%</td>
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<td>73.3%</td>
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<td>Chem-1211</td>
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<td>Chem-1212</td>
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<td>20</td>
<td>100.0%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>186</strong></td>
<td><strong>156</strong></td>
<td><strong>83.9%</strong></td>
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GPC: 1st Place Overall, 2010
Outcomes at AMC MESA
AMC-MESA STUDENT DEMOGRAPHICS - STEM MAJORS

PERCENTAGE OF MESA STUDENTS IN STEM MAJORS IN 2009 - 2010

- Biology: 61%
- Chemistry: 16%
- Physics: 0%
- Mathematics: 3%
- Engineering: 13%
- Computer Science: 7%

PERCENTAGE OF MESA STUDENTS IN STEM MAJORS IN 2008 - 2009

- Biology: 64%
- Chemistry: 11%
- Physics: 0%
- Mathematics: 3%
- Engineering: 11%
- Computer Science: 7%
- Physical Therapy: 4%
Impact of MESA Program on Students

- Five AMC-MESA made poster presentation at the 88th Annual GAS Conference – March 25, 2011
- Two AMC-MESA Scholars made Research Presentations at the Summer 2008 Albany State University HBCU-UP Research Program
- MESA students have attended several workshops including the *Minority Serving Institutions Research Partnership (MSIRP) Conference 2008* and Workshops on Transfers to Four-Year Institutions 2009 - 2011
Impact of MESA Program on Students

- Several AMC-MESA Scholars participated in summer internships at:
  - Albany State University Summer 2008, 2009
  - Xavier/Tulane Research Program funded by ONR Summer 2009
  - GA Tech Focus Weekend Program Summer 2009
  - Morehouse School of Medicine Summer 2009
  - NASA & AMP, 2010
  - Study Abroad Experience at the University of Toronto in conjunction with the Ronald McNair Annual Conference 2010
AMC Students and Programs Successes

AMC-MESA RETENTION

- 78.6% STEM student retention rate in 2009
- 64.5% continue to major in STEM fields at AMC today

TRANSFER TO HIGHER INSTITUTIONS

- 45% of the AMC-MESA Scholars have transferred to four-year institutions as STEM majors
AMC-MESA Success

GRADES IN GENERAL PHYSICS I PHYS 1111 FOR ALL REGISTERED STUDENTS COMPARED WITH AMC-HP-MESA STUDENTS FOR SPRING 2008

<table>
<thead>
<tr>
<th>AMC LETTER GRADES</th>
<th>% REGISTERED STUDENTS OR % AMC-HP-MESA STUDENTS</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>SPRING 2008 TOTAL REGISTERED STUDENTS</td>
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<tr>
<td>B</td>
<td>SPRING 2008 AMC-HP-MESA STUDENTS</td>
</tr>
<tr>
<td>C</td>
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</tr>
<tr>
<td>D</td>
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<td>F</td>
<td></td>
</tr>
<tr>
<td>W</td>
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GRADES IN GENERAL PHYSICS II PHYS 1112 FOR ALL REGISTERED STUDENTS COMPARED WITH AMC-HP-MESA STUDENTS FOR SPRING 2008

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<tr>
<th>AMC LETTER GRADES</th>
<th>% REGISTERED STUDENTS OR % AMC-HP-MESA STUDENTS</th>
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<tr>
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<td>SPRING 2008 AMC-HP-MESA STUDENTS</td>
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<td>F</td>
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<td>W</td>
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</table>
MESA OTHER AREAS OF IMPACT

- AEW sessions
- MESA Leadership Conferences
- Minority Serving Institutions Research Partnership (MSIRP) Conference
- NASA Industry and University Tours
- MESA Scholars & MESA Club Mixer
- Annual MESA Luncheon/Dinner
HISTORY OF GEORGIA MESA Conference

- 2007: Darton College
- 2008: Tallahassee Community College
- 2009: Westin Atlanta Airport Hotel
- 2010: No Conference.
- 2011: GPC, Clarkston Campus
- 2012: GPC, Dunwoody Campus
2007 MESA Conference
Darton College
2009 MESA Conference
Challenges of the Programs

- Improve students’ academic performance
- Increase the number of underrepresented minority STEM students transferring into senior colleges, universities and professional schools
- Continue to sustain and seek additional funding for MESA and other related programs at Georgia Institutions
- Partner with four-year institutions to help students meet transfer criteria and attain internship and research opportunities
- Build relationships with Community and Industry Leaders to facilitate internship and research opportunities
Next Steps

**Issues**
- Retaining “at-risk” STEM students
- Reducing withdrawal rates
- Increasing graduation and transfer rates to the four-year universities
- MESA Conference Business/Corporation sponsors
- Expanding MESA to other GA institutions

**Changes**
- More rigorous recruitment and interview efforts
- More comprehensive advising procedure
- Program Improvement with increased funding to recruit more STEM students and provide activities that will promote greater academic achievements
- Greater coordination among GA MESA programs
Thank you from all the MESA Students!