

Pit Stops Without Penalties: Preparing First Year Students for Success



University of Maryland, Baltimore County (UMBC)
Meyerhoff Scholarship Program

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Outline

- Needs Assessment
- UMBC Profile
- Meyerhoff History and Background
- Summer Bridge Program Goals
- Program Pillars
- Program Outcomes

Needs Assessment

- ❑ Declining enrollments Science, Technology, Engineering, and Mathematics (STEM)
- ❑ High attrition rate
- ❑ Implications for diversity
- ❑ **RETENTION IS KEY!**

UMBC Profile

- ❑ Midsize public university
 - Founded in 1966
 - 11,650 students (9,406 U and 2,244 G)
- ❑ 35% minority enrollment
 - (Black 14%, Asian 17%, Hispanic and Native American 4%)
- ❑ 1391 Freshmen SAT (top quartile)
- ❑ 41% of students in STEM fields
- ❑ What are we known for?



UMBC

AN HONORS UNIVERSITY IN MARYLAND

The Meyerhoff Scholarship Program

- ❑ Founders and Purpose
- ❑ Milestones of 1989, 1991 and 1995
- ❑ ...now open to all high-achieving high school seniors who have an interest in pursuing doctoral study in the sciences or engineering, and who are interested in the advancement of minorities in the sciences and related fields.
- ❑ Application Process

07-08 Meyerhoff Freshmen Demographics

Application Process

Applicants	435
Candidates	199
Offers	95
Yield	59

Gender

Female	29
Male	30

Ethnic Distribution

African American	24
Asian/Pacific Islander	13
Caucasian	9
Hispanic	2

Distribution of Majors

Biological Sciences	15
Biochemistry	10
Mechanical Engineering	9
Chemistry	4
Chemical Engineering	4
Math	5
Physics	2
Bioinformatics	2
Computer Engineering	5
Computer Science	3

Academic Information

Avg. HS GPA	4.09
Avg. MSAT	686

Summer Bridge Program

- ❑ Overview
- ❑ Methods to the madness
- ❑ Program built on **High Expectations**



Weekly Summer Bridge Schedule

WEEKLY SCHEDULE

	SUN	MON	TUES	WED	THUR (6/12)	FRI	SAT		
7:00	FAMILY VISITATION HOURS	<i>Breakfast</i>	<i>Breakfast</i>	<i>Breakfast</i>	<i>Breakfast</i>	<i>Breakfast</i>	<i>Breakfast</i>		
8:00									
8:30			CLASS	WORKSHOPS	CLASS	SITE VISITS	CLASS	SATURDAY TRIPS	
9:00									
10:00									
11:00			Meetings	Prof. Develop.	Meetings				Intro. To Research
NOON			<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>				<i>Lunch</i>
1:00			CLASS	SEMINARS	CLASS				CLASS
2:00									
3:00				SEMINARS	CLASS				
4:00		Leadership					Meetings		Meetings
5:00	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>		<i>Dinner</i>		<i>Dinner</i>
6:00	Individual Study & Free Time	Individual Study & Free Time	Individual Study & Free Time	Individual Study & Free Time	Individual Study & Free Time	Individual Study & Free Time			
7:00									
8:00	Study Groups	Study Groups	Study Groups	Study Groups	Study Groups	Group Activities	Group Activities		
9:00									
10:00									

Program Goal

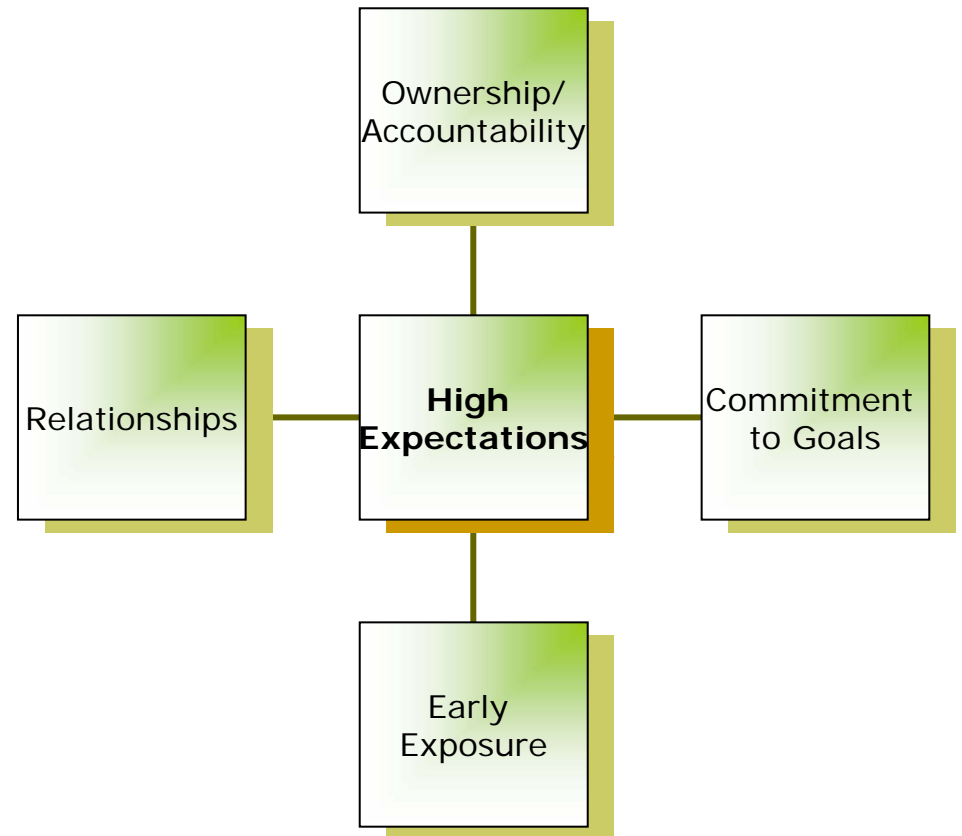
Increase number of STEM PhDs from underrepresented minority (URM) groups

Factors that impede URM student persistence

- ❑ low expectations
- ❑ academic and cultural isolation
- ❑ motivation and performance vulnerability in the face of negative stereotypes
- ❑ peers not supportive of academic success
- ❑ inadequate advising
- ❑ lack of exposure to practical applications
- ❑ inadequate performance in critical science courses

Program Pillars

- ❑ **Providing Early Exposure**
- ❑ **Building Relationships**
- ❑ **Strengthening Commitment to Goals**
- ❑ **Cultivating Ownership and Accountability**



Providing Early Exposure

Academics

- Collegiate Environment
- Study Skills Evaluation and Modification
- Academic Plans



Providing Early Exposure (cont'd)

Research

- Scientific Presentations
- Site Visits and Professional Talks
- Laboratory Tours

Professional Development

- Graduate Preparation
- Career Exploration
- Business Etiquette



Building Relationships

Peer Relationships

- **Connection to Counselor**
- **Connection to Current Students/Alumni**
- **Connection within Cohort**
 - **Team Building**
 - **Leadership**
 - **Group Responsibility**



Building Relationships (cont'd)

Program Relationships

- **Connection to Program Staff**
 - Daily Interaction
 - Early Advising

- **Connection to Campus Community**
 - Vested Instructors
 - Demystifying “Professor”
 - Administrative Introductions

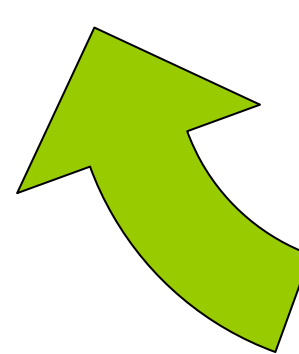
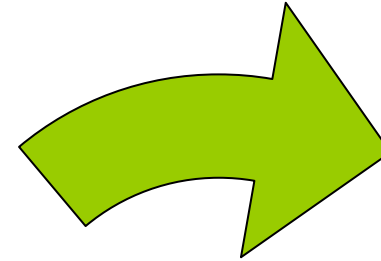


Strengthening Commitment to Goals

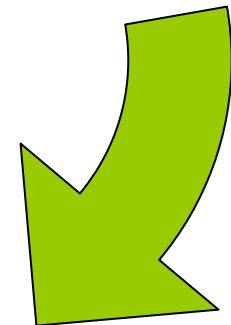
- Knowledge of Path
 - Academic Rigors
 - Re-evaluate and Modify Existing Practices
- Measurable Steps Toward Goals
- Reinforcement of Practices

Knowledge of Path

Measurable Steps



**Reinforcement
Of Practices**



Cultivating Ownership and Accountability

Developing a Renewed Perspective

- Fostering a Legacy
- Interdependence
- Program Promotion
- Connection to Community



The Meyerhoff Scholar



- Exhibits intellectual curiosity
- Committed to science and research
- Comfortable discussing issues of diversity
- Believes that excellence demands sacrifice
- Possesses high standards and expectations
- Has no fear of failure nor success
- Encourages others consistently
- Able and desires to work well with others
- Values service
- Functions well in both leadership and supporting roles

Take Home Message

- Identify then adapt to the needs of the population
- Work with groups of students with common interests
- Find ways to connect students
- Collaborate with campus partners

Acknowledgements

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