The Total Undergraduate UF-MSE Population

- Significant growth in the late 90’s and again recently
- Several factors contribute to cycle
- Goal ~200 total
Preview

- Preview is a 2 day freshman orientation session
- All engineering students coming into UF attend Preview
- MSE helped to coordinate and run Preview
- Provides opportunity to get the word about MSE out
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New Programs
Addressing Undergraduate Enrollment Drop

• **Most Effective Approaches (starting 2005)**
  – Assembled a Poster (with Cornell’s Permission) and 2 brochures on REM and Nanotechnology
    » Sent 1000 packages along with personal letter to Florida High Schools (heads of Science, Math and Councilors)
  – Promote MSE in summer Preview sessions
  – Teach 2 sections of Intro to Engineering per week Fall, Spring and Summer
  – Started REM (Research Experience in Materials) Program Fall 2005
    » Lab experience, 32 freshmen, $10/hour, 10 hours/week, 2 semesters

• **Less Effective Approaches**
  – Participating in COE Step-up Program, CPET SSTP program
  – Teaching Freshmen ENG 1817 Engineering Innovations
  – Engineering Dormitory Seminar Series on Materials
  – Helped organize two all engineering sections of Freshmen chemistry
    » 3 of the 4 TA’s for the engineering sections are from MSE
Modified Recruiting Process

Fall 2005 and Spring 2006
Posters sent to all FL High School Science and Math Teachers and Guidance Counselors

Summer 2005
Help coordinate Preview

Fall 2005
Began REM Program

Fall 2005, Spring 2006
Recruit in Intro to Engineering Course

Materials Science and Engineering
Freshmen Enrollment Before Preview

- Sent Posters out in 2005
- Jump from 10-12 to 25 from posters
Freshmen Enrollment after recruiting

- This is the total freshman class at the end of Spring Semester
- Stopped Preview in 2002
- Implemented new measures in 2005
Addressing Student Quality

• Met with councilors in honors program 5 years ago
• Explained Program
• Rolled out red carpet to each individual student they referred
• Built up trust system with this office
• SAT scores have climbed with interaction with honors college.
Undergraduate Quality

- National Merit Scholars at all time high
- 24 students is 17% of the UG program
- Far more than any other department on campus (40,000 UG Students)
Additional Activities

• **Middle and High School Teachers Workshop**
  – 1 week on-campus summer workshop called MSE Teach
  – Funded by from ASM, COE and County School systems
  – Average 12 teachers for the last 5 years:
  – 25 are signed up for this summer
    » 3 more on a waiting list
    » Poster?
Conclusions

- Marketing is the key to Undergraduate recruiting
- Increased average class size to ~45-55 (meets target)
- Marketing Processes that worked for us
  - Posters ~15-20%
  - Preview ~30-40%
  - Intro to Engineering ~20-30%
  - Honors Advisors 5-10%
- REM for increased retention
- Working with Honors Advisors significantly increased National Merit Students