In order to meet the technological needs of our advanced society in the next century, we in engineering education must exert significant and sustained efforts to encourage, incorporate, and facilitate the success of women and other minority groups into the profession of engineering. Auburn University's College of Engineering is developing an extensive program to recruit minority students into engineering and to enhance their subsequent experiences as engineering students.

This paper presents an overview of the implementation of the Auburn University Minority Engineering Program (AUMEP) which began in earnest in the Fall term of 1997. This overview includes a discussion of the major components of the AUMEP including recruiting and retention of minority students, scholarship and other financial incentives, academic aids and enhancements including an interactive learning laboratory, and an ongoing effectiveness assessment of the overall program.

The single most effective component of our AUMEP efforts has been an aggressive mentoring activity by our upper-class minority students. Since Auburn University is a predominantly white university, many times a significant cultural adjustment must be made by our incoming freshman and transfer minority students. The mentoring activities provide this much needed personal connection. These upper-class mentors serve not only in a "big brother/big sister" capacity but also serve as academic tutors and informal advisors. Two other important components are weekly, scheduled interactive learning laboratory sessions and a study skills workshop which provides additional scheduled contact and interaction with the beginning minority engineering student.

During these first nine months of AUMEP activities, the Director, faculty, staff, and mentors have learned many lessons which are invaluable toward improving AUMEP. As is the case in most academic endeavors, finding the right mix of challenge, motivation, discipline, and fun is key to long-term success. Assessments have been made of this "first" freshman AUMEP group including comparison of grade point averages (GPA's) with similar groups of freshman minority engineering students in past years.

These comparisons show statistically significant improvements in overall GPA's for our students who actively participated in most of the scheduled AUMEP activities. Various anecdotes and experiences along these lines will be shared in our presentation. Many challenges still face us as we plan for the upcoming academic year. One of the most exciting is the design of an introductory course for academic credit which should provide the incoming minority freshman in engineering with an overview of the demands of engineering and an exposure to the various engineering disciplines. The syllabus for this course will be presented and discussed. Financial support for the Program and for partial and full scholarships for many of our outstanding AUMEP students is also a continuing challenge and ongoing concern. Our efforts (and continuing struggles and difficulties) in this area will also be presented and discussed.