Minimal Requirements for the Major Design Experience (MDE)

Currently the major MDE course is ECE 4907-01 (ECE 407-01). Students can enroll in other sections of the MDE course (ECE 4907-02 (ECE 407-02), ECE 4907-03 ((ECE 407-03), etc, which must be taught by the ECE faculty) if the section meets the following criteria:

1. The course must be focused on a semester-long major design project that addresses a real-world engineering problem.
2. Each student must be a member of a team of at least 3 members.
3. A written project proposal should address a) the problem statement, b) the requirements and c) formal specifications.
4. At least one oral presentation should be given by each student during the semester.
5. The project will have a final written report. The report should address considerations and constraints in most of the following types: economic, environmental, sustainability, manufacturability, ethical, health & safety, social and political (as mandated by ABET).
6. The final report (or earlier report) should also provide a detailed design and discussion of tradeoffs, as well as, design validation and verification.

ECE 4332 (ECE 432) and ECE 4440 (ECE 436) are also approved MDE courses for EE majors. Other courses may be used to satisfy the MDE requirement with prior approval from Prof. Scott Barker (nsb6t@Virginia.EDU) and the Undergraduate Curriculum Committee.