Students without a prior BS degree in engineering are usually required to take additional undergraduate courses. Depending on the number of background courses needed, a student may be required to register as an undergraduate until the time when he/she will begin graduate level work. The courses required for a student without an engineering degree can vary widely, depending on the background. Each student's required courses are evaluated on an individual basis, but as a minimum, the following undergraduate courses generally are required before graduate courses can be taken.

12 hours  Mathematics (calculus or higher)
8 hours  Physics
3 hours  Chemistry
3 hours  Statics
3 hours  Dynamics
3 hours  Mechanics of Solids
3 hours  Computer Programming
3 hours  Engineering Materials
3 hours  Fluid Mechanics
3 hours  Thermodynamics or electrical circuits
12 hours  Civil engineering – including courses in at least two areas

Other courses may be required depending on which specialty area the student intends to pursue.

Credit may be given for any course on the above list for which a student has previously received a passing grade.