



**Sample Topics:**

1. Understanding real world problems (decisions and tradeoffs; documentation and reporting; project scheduling and budgeting; vendor relations; sponsor input and change of scope; resource limitations; ethics and safety; confidentiality)
2. Leadership and team building (division of work and delegation; authority, responsibility and accountability; resolution of personal conflicts; utilization of a variety of talents and skills; personnel evaluation and feedback)
3. Engineering design process (proposal, negotiation, contract, execution and evaluation; feasibility studies; preliminary design; detailed design; revision; release; field testing; production; salvage)
4. Application of course material (recognize applications and limitations; balance analysis, experimentation, computation, simulation, and optimization; assess models using prediction and other validation)
5. Gain real world insights (develop career goals; learn about patents and notebook recording; get acquainted with engineers and companies; sense the complexity, difficulty and time involved in solving real problems)
6. Business acumen (responsibility accounting and cost control through standard costs, relevant costing in nonroutine decisions, evaluating capital expenditure projects, how taxes affect business decisions)