

APPENDIX A – DESIGN PROJECT

Design Your Process for Becoming a “World-Class” Engineering Student

(Note: This project can be either an assignment in your *Introduction to Engineering* course or a task that you take on and complete through your own initiative.)

Engineers “design products or processes to meet desired needs.” In engineering education, most of the focus is on designing products. Through this project you will design a process. You will “Design Your Process for Becoming a ‘World-Class’ Engineering Student.” The text *Studying Engineering* will be a valuable resource in this design project.

Task:

For each of the following items, develop a plan that will indicate:

- Where a “world-class” engineering student would want to be on each item
- Where you are currently on each item
- What you need to do to move from where you are to where you would need to be to become a “world-class” engineering student

Items:

- Set goal(s) for what you want to achieve through your engineering education (major, time to graduation, GPA, etc.) and beyond
- Develop a strong commitment to the goal of graduating in engineering by:
 - Clarifying what success in engineering study will do to enhance the quality of your life (rewards, benefits, opportunities, payoffs, etc)
 - Understanding the essence of engineering (be able to articulate an answer to the question “What is engineering?”)
 - Being aware of past engineering achievements, current opportunities (academic disciplines, job functions, industry sectors) and future directions.
 - Preparing a “road map,” a term-by-term plan to guide you to graduation
 - Other strategies identified by you.
- Be prepared to deal with inevitable adversity
- Do a good job of managing various aspects of your personal life including interactions with family and friends, personal finances, outside work, and commuting.
- Change your attitudes to those appropriate to success in math/science/engineering coursework. Among those that are candidates for change are:
 - Low self-confidence or overconfidence
 - Reluctance to seek help
 - Resistance to change, grow, develop, improve
 - Tendency to procrastinate
 - Avoidance behavior (avoid difficult or unpleasant tasks)