**Writing Assignment 1**

Why I am at the University of Pittsburgh Swanson School of Engineering: My Recent Past, My Present, My Near Future, 950-1000 words

For Writing Assignment 1, each student describes key factors that led him or her to the University of Pittsburgh’s Swanson School of Engineering (SSOE). Each student then describes what he or she hopes to achieve during the first semester at SSOE. Drawing on a variety of resources, including information from University sources and support services, as well as instructors, peers, and mentors, each student then discusses how he or she might actually achieve the goals noted in the second part of the assignment.

Throughout Assignment 1, students must be specific in their descriptions and explanations. Such specificity helps students comprehend how thinking, drafting, and revising with clarity about their own processes of decision-making facilitates clear and significant communication with their readers.

In addition to describing, explaining, and exemplifying the “why,” “what,” and “how” within each section of Assignment 1, students must also clearly articulate and explain the connections among the 3 sections of Assignment 1. This clarity and specificity of connection in their writing helps students see and appreciate the relationships among decisions, goals, resources, and outcomes, and helps students comprehend best practices in writing with clarity and impact.

**Writing Assignment 2**

Why I Want to Be What I Think I Want to Be--Engineering and Me: Why I Want to Be A _______ Engineer, 1600 words

For Assignment 2, each student investigates his or her current thinking and assumptions about the particular field of engineering he or she is considering as a major. Through research into a particular professional field, students familiarize themselves with aspects of the field such as educational requirements, work environments, working conditions, and earning potentials. In addition to consulting a variety of resources that describe and explain aspects of a particular field, students continue the research into “themselves” that also informed their writing in Assignment 1.

For Assignment 2, a student is not only investigating and describing what, for instance, an environmental engineer “does,” he is also investigating and articulating how an engineer’s work and remunerations in that field align with (or, perhaps, do not align with) the student, herself. In Assignment 2, the student begins to answer, specifically, how being an environmental engineer might fulfill her student address her proclivities and interests, and fulfill her hopes, goals, and dreams.

The research required for Assignment 2 continues to encourage students to see the connections between what they “do” and who they “are” and want to be.

**Writing Assignment 3**

A Current Engineering Innovation and Discussion: What do I Have to Say? 1550 words

For Writing Assignment 3, students identify a current engineering innovation which is of interest to them and about which there is ongoing analysis and debate. Students must consult at least 5 sources (sources appropriate to a university-level paper) from the past 3 years to gather current information on an innovation and to become aware of some of the discussions and debates surrounding that innovation. Students then take a “place” in these discussions/debates, articulating their own views and describing, in detail, why they hold the positions that they do.

Just as students must do more than describe a field of engineering in Assignment 2, in Assignment 3 students must do more than only describe an innovation. Students must consider and discuss potential positive impacts, negative possibilities, and “grey areas.” Students must clarify and contextualize what they mean by an evaluative terms such as “positive” or “useful” or “detrimental.” Students must also “connect” the innovation and surrounding debates to “themselves,” investigating and writing about why this particular innovation and these particular issues are interesting and important to them.

With Assignment #3, students increase their knowledge of what “goes on” in particular fields/areas of engineering, they hone their research and information literacy skills and, of course, they continue to receive the instruction, practice, and feedback that improves their writing skills and outcomes. Along the way, students continue to investigate and articulate how and why they make decisions and “take positions” and how and why this self-knowledge is significant.

**Writing Assignment 4**

How can I be an Ethical, Responsible, Perceptive Engineer? Ethics and Responsibility, 2200 words

For Assignment 4, students create a “narrative” involving an “ethical scenario.” Drawing on their research for Assignment 3, students create a possible work-related scenario involving significant ethical considerations and decisions. In this narrative, the student casts himself or herself as a practicing engineer involved with and/or making an ethically charged decision. Having created the narrative (which is, in many ways, a “case study”) as the first part of the paper, each student then writes about how he or she, as a “practicing engineer” might proceed to make an informed, responsible ethical decision.

Students must detail the kinds of sources they might consult as they proceed through a decision-making process. Students
must show familiarity with at least 2 engineering codes of ethics, they must read several articles dealing with ethics in science, technology, and engineering, and they are encouraged to discuss other less “traditional” sources that they might find useful in a complex decision-making process.

Students describe the decisions they might make in the situation they have narrated. As with all the papers throughout the semester, students must clearly articulate, explain, and exemplify why they might make a particular decision or take a particular action.

Assignment 4 continues the semester-long theme of having students learn about themselves while simultaneously learning about various aspects of engineering including education, engineering fields, engineering practices, engineering achievements, and decision-making within engineering. Throughout the semester, as students understand and practice clear, cohesive, university-level writing, they are also coming to understand and appreciate their own agency and carefully earned authority.

**FINAL ASSIGNMENT**

**PPT and Poster: Envisioning and Sharing “The Big Picture”**

For this end-of-semester presentation project students create a PowerPoint presentations and a poster. Both the PPT presentation and the poster demonstrate how students are a part of and also are creators of the “big picture” of engineering and of being engineers. PPTs are given and posters are displayed in meetings of the students’ “small group seminars” that are part of the ENGR 0081 advising and mentoring course. With the PPT and the poster, each student portrays and communicates his or her journey through the first semester of SSOE, focusing, primarily, on what he or she has learned about engineering and about himself or herself via the 4 fall semester writing assignments.

With visuals, including photographs, drawings, charts, graphs, and data collections as well as brief text, students depict the processes and outcomes of exploring, through “traditional” research, through research into “themselves,” and through writing, of understanding engineering, of understanding themselves, and of appreciating the connections between engineering and themselves. The creation and presentation of the PPT and poster provide students with an opportunity to revisit their experience in more “visual” forms, to reinforce the personal and professional connections they have been making writing Assignment 1, and to share and discuss, with their peers, in a “professional” setting, what they have experienced throughout the first semester at SSOE.