Reflection on General Education Courses

General education courses are critical in forming new engineers into holistic professionals, moving beyond mere technical expertise. They help introduce engineers to a broader approach to critical and general thinking that helps them create solutions from societal, economic, and global perspectives. During my learning process, RUS 3750: Russia Today and HDFS 2830: Personal Finance has significantly contributed to enabling me to think more holistically when addressing engineering problems.

Engineering is not merely an understanding of technical problem-solving; it also encompasses comprehension of the overall setting in which the technology is designed and utilized. My electives in the core curriculum have taught me to value cultural, economic, and societal factors in making engineering decisions.

RUS 3750: Russia Today familiarized me with contemporary social, political, and economic issues in Russia, which made me aware of the impact of geopolitical issues on industry and technology. This is relevant to engineering because foreign trade policies and global cooperation influence technological progress and manufacturing procedures. Knowing different political and economic systems, engineers can anticipate issues in international projects and engineer solutions sensitive to different regulatory contexts.

HDFS 2830: Personal Finance gave me the financial literacy competence necessary for personal and professional development. As an engineer, it is imperative to control project budgets, analyze the cost-effectiveness of plans, and gauge economic limitations. The course stressed the need for financial planning, investment techniques, and risk evaluation—abilities that can be applied directly in engineering project management and cost analysis.

Engineering solutions are not single-dimensional; they must consider social, economic, and global repercussions. My general education courses have served to open my capability to evaluate engineering solutions from a variety of dimensions:

Economic Considerations: HDFS 2830 highlighted the importance of economic decision-making. In engineering, this translates to cost-benefit analysis, return on investment analysis, and technological innovation being cost-effective. For example, engineers must balance upfront costs versus future savings and potential economic incentives when designing energy-efficient systems.

Global Context: RUS 3750 gave us a perspective on how technological innovations are perceived and regulated differently globally. Having this knowledge is crucial when doing international engineering work. A good example is that a renewable energy solution that

would work in the United States would require modifications to be effective in Russia due to infrastructure, policy, and economic differences.

Social Impact: Engineering choices affect people and society. Both modules emphasized the importance of considering how engineering projects affect human lives. Personal finance showed me how economic policy and new technologies affect consumers who adopt that same new technology. Russia Today highlighted how political and cultural contexts shape citizens' acceptance of technological change. Both modules underscore the importance of ethical considerations, regulatory adherence, and public participation in engineering innovation.

My general education courses have contributed significantly to making me a professional engineer by expanding my problem-solving expertise beyond technical. RUS 3750 opened my perspective to a more global view, realizing that things such as geopolitics influence engineering. At the same time, HDFS 2830 taught me the financial literacy skills needed in budgeting, investment, and economic decision-making in engineering projects. These classes have reinforced the idea that to be an engineer does not just mean technical knowledge but understanding the grander economic, social, and international landscape in which technology operates. Analyzing and solving from this greater perspective will allow me to develop and implement solutions that are not only technically sound but also financially feasible, socially ethical, and internationally relevant.