Explanation of Course Numbers

- Courses in the 1000s are primarily introductory undergraduate courses.
- Those in the 2000s to 4000s are upper-division undergraduate courses that can also be taken for graduate credit with permission and additional work.
- Those in the 6000s and 8000s are for master's, doctoral, and professional-level students.
- The 6000s are open to advanced undergraduate students with approval of the instructor and the dean or advising office.

**P.S.I.S. 2101. Writing and Communications and Media Relations I. 4 Credits.**
The fundamentals of reading and writing with a clear sense of purpose and audience. How academic writing in virtually any subject area and on virtually any topic represents a formal engagement with larger scholarly debates. The writing process, including prewriting, drafting, and revision as well as basic research methods. Making clear oral presentations.

**P.S.I.S. 2102. Writing & Comm & Med Rel - II. 4 Credits.**

**P.S.I.S. 2103. Found Math & Stat Sci - I. 4 Credits.**

**P.S.I.S. 2104. Found Math & Stat Sci - II. 4 Credits.**

**P.S.I.S. 2105. Found Info Tech & Comp - I. 4 Credits.**

**P.S.I.S. 2106. Found Info Tech & Comp - II. 4 Credits.**

**P.S.I.S. 3122. Ethics in Sci & Tech Policy. 4 Credits.**

**P.S.I.S. 3123. Legislative Aff & Gov Proc. 4 Credits.**

**P.S.I.S. 4131. Molecular Bio for Biotech. 4 Credits.**

**P.S.I.S. 4132. Phys Principles of Biotech. 4 Credits.**

**P.S.I.S. 4133. Bioinformatics. 4 Credits.**

**P.S.I.S. 4134. Biophysics in Life Sciences. 4 Credits.**

**P.S.I.S. 4135. Computational Modeling. 4 Credits.**

**P.S.I.S. 4136. Intro Biomed Instrumentation. 4 Credits.**

**P.S.I.S. 4137. Alternative Energy Sources. 4 Credits.**

**P.S.I.S. 4138. Introduction to Health IT. 4 Credits.**
Current and emerging healthcare information technologies, the policies involved in the delivery of healthcare and health IT, and the people and the processes that support the delivery of healthcare. Restricted to Majors only.

**P.S.I.S. 4141. Comp & Telecom Networks. 4 Credits.**

**P.S.I.S. 4142. Rel Databases & Design. 4 Credits.**

**P.S.I.S. 4143. Systems Integration. 4 Credits.**

**P.S.I.S. 4144. Info & Network Security. 4 Credits.**

**P.S.I.S. 4145. Software Sys Dev Processes. 4 Credits.**

**P.S.I.S. 4151. Entrepreneurship & Comm Tech. 4 Credits.**

**P.S.I.S. 4152. Entprnrshp/Tech Venture Cr. 4 Credits.**

**P.S.I.S. 4160. Introduction to Data Science. 4 Credits.**
Techniques used to understand, process, represent, and interpret large sets of data; fundamental concepts and abstractions used in data analysis; practical techniques employed by data scientists on a daily basis. Restricted to program majors. Prerequisites: P.S.I.S. 2103 and P.S.I.S. 2105.

**P.S.I.S. 4161. Data Visualization. 4 Credits.**
Data visualization fundamentals; theoretical and practical concepts related to creating visually appealing graphics using data; current and emerging software and web development tools. Restricted to students in the BPS in IIST program. Prerequisite: P.S.I.S. 2105.

**P.S.I.S. 4162. Data Mining and Web Analytics. 4 Credits.**
Data mining techniques for structured and unstructured data; pattern discovery, text mining and natural language processing, cluster and sentiment analysis, and web scraping and analytics. Restricted to Majors only. Prerequisites: P.S.I.S. 2105 and P.S.I.S. 2106.

**P.S.I.S. 4190. Capstone Proj & Senior Thesis. 4 Credits.**

**P.S.I.S. 4191. Capstone Project and Senior Thesis I. 2 Credits.**
The capstone project allows either the conduct of significant independent research or the design and implementation of a real-world project. Either choice is a means for students to use the knowledge and skills they have acquired throughout the program. For most students, the capstone project can showcase their skills via a comprehensive written report or a portfolio that can be presented to future employers.

**P.S.I.S. 4192. Caps Proj & Senior Thesis- II. 2 Credits.**

**P.S.I.S. 4195. Undergraduate Research. 1-4 Credits.**

**P.S.I.S. 4199. Special Topics. 2-4 Credits.**