The Technology and Innovation

- Project Purpose: To generate accurate predictions of enrollment figures for undergraduate Computer Science courses.
- The project integrates a variety of technologies together:
  - Java (for analysis and generating predictions)
  - MySQL (for storing and organizing enrollment and prediction data)
  - PHP (for linking together the Java program, database, and web application)
  - HTML & CSS (for designing the web application)
- Enrollment figures are predicted using an algorithm that considers three main factors that affect course enrollment:
  - Historic trend
  - Eligibility based on minimum required grade
  - Relationship between enrollment of a course and its prerequisites

Community/Industry Impact and Value

- This software could be used to aid in scheduling courses for upcoming semesters, allowing for more accurate scheduling of class sections, thus avoiding a lot of scheduling conflicts such as overrides and cancelled courses

Community/Industry Engagement

- Wayne State University Department of Computer Science

Team Composition

- Matthew Tunesi, Marc Fennell, Takida Robinson, Khayyam Hashmi (Faculty Advisor), Sam Bryfczynski (Faculty Advisor)

Learning Experiences

- Integrating different technologies together into a single working product, including compiled Java code, a database, and a web application
- Using statistical analysis to make predictions for the future using actual data that is used in scheduling courses
- Making a streamlined, easy to use user application for a complex system of technologies
- Using industry best practices such as efficient coding, user-friendly application interface, complete testing, and professional documentation

Further Research and Development

- Could be expanded to Spring/Summer semesters
- Could be expanded to elective courses