COURSE SYLLABUS

IST 230.005: Language, Logic, and Discrete Mathematics

Spring 2024

Course Information

Instructor: Dr. Shane Tomblin (mst5491@psu.edu | 717-706-1439 (**C**) | 814-865-0348 (**O**))

Meeting Times: MWF 1:25 – 2:45 (in-person)

Location: Keller Bldg. 211

Course Description: Introduction to formal languages, mathematical logic, and discrete mathematics, with applications to information sciences and technology. IST 230 is one of the five introductory core courses for the baccalaureate degree program in Information Sciences and Technology. The purpose of IST 230 is to provide students with an understanding of an array of mathematical concepts and methods which form the foundation of modern information science, in a form that will be relevant and useful for IST students. Exams and assignments will be used to assess that understanding. IST 230 will draw some of its material from several mathematical disciplines: formal language theory, mathematical logic, and discrete mathematics. In-depth treatments of each of these subjects are offered elsewhere in the University as advanced mathematics and computer science courses. The difference is that IST 230 will present these concepts in a more elementary way, with much more emphasis on IST applications.

Prerequisites: MATH 110 or MATH 140

Course Objectives:

IST 230 is one of the five core courses for the baccalaureate degree program in Information Sciences and Technology. The purpose of IST 230 is to provide students with an understanding of an array of mathematical concepts and methods which form the foundation of modern information science, in a