1. **Course number and name**  
   CptS 452: Compiler Design

2. **Credits and contact hours**  
   3 credits, 3 lecture hours

3. **Instructor’s or course coordinator’s name**  
   Ananth Kalyanaraman

4. **Textbook, title, author, and year**  

5. **Specific course information**  
   a. **Catalog description:** Design of lexical analyzers, syntactic analyzers, intermediate code generators, code optimizers and object code generators.  
   b. **Prerequisites or corequisites:** CPT S 317 with a C or better; CPT S 355 with a C or better; certified major in Computer Science, Computer Engineering, or Electrical Engineering. Prerequisite Grade Requirements: C or better

6. **Specific goals for the course**  
   This course develops students’ understanding of compilers and the phases of the compilation process. Based on the materials covered in lectures, students implement a compiler for a simple imperative language. (1, 2, 6, 7)

7. **Brief list of topics to be covered**  
   - Overview of compilers and interpreters
   - Lexical analysis
   - Syntax analysis
   - Syntax-directed translation
   - Run-time environments
   - Code generation
   - Optimization