

Eastfield College STEM Division

COURSE SYLLABUS - Spring 2019

Jan 22 – Mar 21

COSC 2436.41850

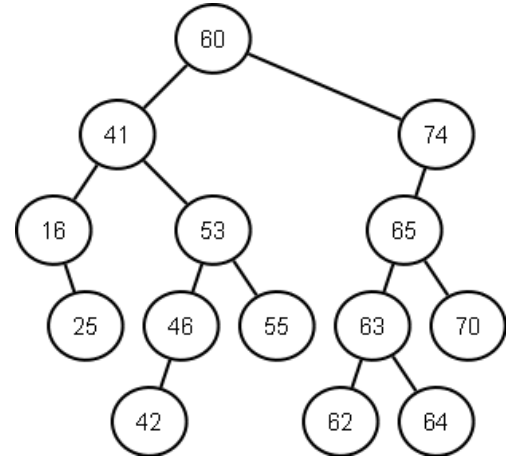
Programming Fundamentals III

Mon/Wed 9:30am – 12:20pm L311

Instructor: **David Kirk** Office: **L315**

Phone: **972-860-7679** Email: dkirk@dcccd.edu

[Hours Available](#) | [Class Web Site](#)



COURSE DESCRIPTION

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. This course may use instructional examples and assignments from various programming languages, including but not limited to C, Objective-C, C++, C#, and/or Java. COSC 2436 will satisfy the Associate in Sciences degree general elective requirement. This course will fulfill degree requirements established by the colleges of DCCCD *only* if this course has been successfully completed and the date of completion does not exceed 10 years. (3 Lec., 3 Lab.)

PREREQUISITE

COSC 1437

TEXTBOOK AND MATERIALS

No textbook is required – will use free online materials. USB flash drive needed for saving programs. The free Java SDK will be used for compiling programs. For editing programs, TextPad will be used, but you may use an editor of your choice on your own computer.

COURSE OUTLINE

All homework and the class schedule is located on the class web site: ecampus.dcccd.edu. Homework assignments are due by the date listed on the class website. Late assignments are accepted, but 5 points will be deducted for each day late. No late assignments will be accepted after **Mar 20, 2019**.

EVALUATION PROCEDURES

Seven assignments	70%			
Two Exams	30%			
90 - 100 = A	80 - 89.9 = B	70 - 79.9 = C	60 - 69.9 = D	0 - 59.9 = F

Class Calendar – See ecampus.dcccd.edu for Updated Calendar

STUDENT LEARNING OUTCOMES

- Understand algorithms and their function in software engineering
- Analyze and understand the basic as well as advanced sorting algorithms
- Analyze the growth of the running time of algorithms
- Use recursion to implement algorithms
- Create and use stacks and queues
- Create and use hash functions and tables
- Create and use linked lists
- Create and use binary search trees
- Create and use graphs

Attendance Policy

Students are expected to attend regularly all classes in which they are enrolled and to consult with the instructor when an absence occurs. If a student is unable to complete a course (or courses) in which he/she is registered, it is the responsibility of the student to withdraw; the instructor will assign a performance grade, which is based upon the performance of the student for the entire semester.

Course Drop Date: February 27, 2019

Disclaimer: The instructor has the right to change the syllabus during the semester. If this happens, students will be notified and the new syllabus will be posted.

Institutional Policies: <https://www.eastfieldcollege.edu/au/fastfacts/legal/pages/policies-for-syllabi.aspx>