

Secondary Course Description

Course descriptions are updated and reviewed with all new text adoptions.

COVER PAGE

<p>1. Course Title: Introduction to Computer Science</p> <hr/> <p>2. Transcript Title / Abbreviation: Introduction to Computer Science</p> <hr/> <p>3. Transcript Course Code / Number (Office Use Only): V004310</p> <hr/> <p>4. School: Davis School for Independent Study</p> <hr/> <p>5. District: Davis Joint Unified School District</p> <hr/> <p>6. Department: Career Tech</p> <hr/> <p>7. Graduation Requirement it meets: F - VAPA</p> <hr/> <p>8. Length of Course: 1 Year</p> <hr/> <p>9. Graduation Credits: 10.00</p> <hr/> <p>10. School / District Web Site: http://www.djUSD.net</p> <hr/> <p>11. CBEDS Course Code:</p> <hr/> <p>12. School Contact: Name: Rob Kinder Title/Position: Principal Phone: (530) 757-5300 Ext.: 354 Fax: E-mail: rkinder@djUSD.net</p>	<p>13. Subject Area: History/Social Science English Mathematics Science <input checked="" type="checkbox"/> CTE Language other than English Visual & Performing Arts DJUSD Graduation Elective College Prep Elective (will seek UC/CSU approval)</p> <hr/> <p>14. Grade Level(s): 9-12</p> <hr/> <p>15. UC/CSU Requirement: No</p> <hr/> <p>16. Seeking "Honors" Distinction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <hr/> <p>17. GPA Types:</p> <hr/> <p>18. Credit Value: 0.5 (half year or semester equivalent) <input checked="" type="checkbox"/> 1.0 (one year equivalent) 2.0 (two year equivalent) Other: _____</p>						
<p>19. Was this course previously approved by UC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If so, in what year? _____ Under what course title? _____</p>							
<p>20. Pre-Requisites: Freshman Status Co-Requisites:</p>							
<p>21. Preliminary Approval - Secondary Site Principal Signature (Must be signed before proceeding to Step 22):</p>							
<p>22. Date Course Proposal with Preliminary Approval (Step 15) sent to Associate Superintendent, Educational Services: _____</p>							
<p>23. Review & Approval:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Date</td> <td style="width: 50%; border: none;">Signature</td> </tr> <tr> <td style="border: none;">_____ Site Curriculum and Instruction Leadership Team</td> <td style="border: none;">Signature/Title _____</td> </tr> <tr> <td style="border: none;">_____ Secondary Department Articulation/Collaboration</td> <td style="border: none;">Signature/Title _____</td> </tr> </table> <p>Secondary Principal Signatures: _____</p> <p>Date: _____</p>		Date	Signature	_____ Site Curriculum and Instruction Leadership Team	Signature/Title _____	_____ Secondary Department Articulation/Collaboration	Signature/Title _____
Date	Signature						
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_____ Secondary Department Articulation/Collaboration	Signature/Title _____						

BACKGROUND INFORMATION

Brief Course Description:

This full-year course is designed for students in grades 9–10, although any students across grades 9–12 may enroll. This course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can affect the world. Students have creative, hands-on learning opportunities to create computer programs, develop web pages, design mobile apps, write algorithms, and collaborate with peers while building strong foundational knowledge. This course provides a solid foundation for more advanced study as well as practical skills that students can use immediately.

All Davis School for Independent Study (DSIS) courses are the same rigor, educational quality, and intellectual challenge substantially equivalent to in-person instruction and equivalent classroom-based courses, and shall be aligned to all relevant local and state content standards. The courses taken through DSIS Virtual Academy are facilitated in an entirely virtual format. Courses are facilitated generally asynchronously, with opportunities for live/synchronous courses and small group interactions as well as 1-on-1 teacher-student meetings. Assessments are done through Edgenuity courses where credentialed teachers review and assess student learning. DSIS Virtual students also participate in district-wide assessments such as CAASPP and i-Ready.

Context for Course:

List the State/District Standards addressed in this course. This course adheres to the California Computer Science Content Standards and Science Framework.

History of Course Development:

This is an updated course outline written as a result of the addition of the Virtual Academy

FAIR Act Inclusion (“...a study of the role and contributions of both men and women, Native Americans, African Americans, Mexican Americans, Asian Americans, Pacific Islanders, European Americans, lesbian, gay, bisexual, and transgender Americans, persons with disabilities, and members of other ethnic and cultural groups, to the economic, political, and social development of California and the United States of America, with particular emphasis on portraying the role of these groups in contemporary society.”): This course meets the requirements of the FAIR Act through their inclusion of innovators and leaders that have contributed to the study of Computer Science.

COURSE GOALS AND/OR MAJOR STUDENT OUTCOMES

Students will finish this course with an understanding of the foundational concepts of computer science, practical skills they can use immediately as well as a solid foundation for more advanced study

COURSE OBJECTIVES

- Explore the impact of computing on personal, ethical, social, economic, and cultural practices
- Describe characteristics of the internet
- Use algorithms to solve computational problems
- Apply programming, design, and development methods to real-world situations
- Plan and write multiple programs using programming languages such as Python
- Discuss how lifelong learning and professional development impact advancement and career satisfaction

COURSE OUTLINE

- Computer Science Then and Now
- Hardware and Software
- Computational Thinking

- Control Structures and Data Types
- Classes and Connections
- Programming Algorithms
- Design and Development
- Laws and Security
- Ethics
- Applications

TEXTS AND SUPPLEMENTAL INSTRUCTIONAL MATERIALS

Edgenuity Online Curriculum

Previously Adopted? No (If no, provide information directly below)

Cost per book

Total Cost

Budget Source:

Other:

Edgenuity Online Platform which includes all instructional materials

DIFFERENTIATED INSTRUCTIONAL METHODS AND/OR STRATEGIES

- This course will be delivered online
- Interactive lessons that include a mixture of videos, readings, and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exam

ASSESSMENT METHODS AND/OR TOOLS

- Lesson Quizzes
- Unit Tests
- Cumulative Exams
- Assignments
- Projects

ASSESSMENT CRITERIA

Students will be graded on work completed and submitted to their teacher including: Assignments, Lesson Quizzes, Unit Tests, Projects and Cumulative Exam.

HONORS COURSES ONLY

Indicate how this honors course is different from the standard course.