

Course Abstract
Northwest Local School District

This abstract must be submitted to the Executive Director of Curriculum/Director of Instructional Accountability by October 15 for new courses being considered for the next school year. All required information must be completed. Prior to submission to the Curriculum Office the building leadership team, guidance staff and the principal should approve the course. Please see the attached flow chart for specific information for course approval.

Name of course Computer Science

Department Electives

Grade level(s) 6-8

School Transitions

Name of teacher submitting course Cristen Casteel, Transitions Academy Administrator

Who was involved in the development of this course? Cristen Casteel, Transitions Academy Administrator

Suggested weight of class if applicable (x) General () Advanced () Honors

Certification/licensure required to teach class: Online class: computer as instructor with progress-monitoring by the instructional team at Transitions.

Summary of course (such as suitable for inclusion in the Course Description Book):

This course is designed to introduce students in grades 6-8 to computer science as a vehicle for problem solving, communication, and personal expression. The course focuses on the visible aspects of computing and computer science centering on the immediately observable and personally applicable elements of computer science while also asking students to look outward and explore the impact of computer science on society. Students will explore the design process with creative, hands-on learning opportunities to create programs and collaborate with peers while learning specific aspects of computer science including problem solving, programming, physical computing, user-centered design, and data.

Rationale for including this course in the selections provided at your school:

The instructional team at Transitions would like to expand upon elective course offerings for middle school students.

Why is this course being brought forward? What is the target audience? What need does this course fulfill?

The instructional team at Transitions would like to expand upon elective course offerings for middle school students.

Does this course complement/advance courses that are currently being offered and how or does it replace a currently offered course and why?

The course will not replace a current course, but will support students as 21st century digital learners.

Student learning outcomes: Specifically, what will students know and be able to do at the end of this class? Please identify the specific Ohio Academic Content Standards to be covered.

This course will engage students in learning about Ohio Computer Science Standards from grades 6-8, organized by the following strands:

- Computing Systems: Addresses how devices, including hardware and software, interact to accomplish tasks and how students can troubleshoot computing systems when they do not work as intended.
- Networks and the Internet: Addresses how networks connect to share information and resources and how students can apply cybersecurity concepts to protect information.
- Data and Analysis: Addresses how data can be collected and stored; analyzed and communicated; and used to make more accurate predictions.
- Algorithmic Thinking and Programming: Addresses program development, including the use of algorithms, variables, control structures and modules.
- Impacts of Computing: Addresses computing's influence on our world by examining the relationship between computing and culture, computing's impact on social interaction, and legal and ethical implications of computing.

Collaborative activities and departments involved (if any): Please include a description of how this collaboration will affect the teaching duties of other staff members.

All members of the instructional team at Transitions are proficient at facilitating online learning through Edgenuity. Each student's academic advisor will monitor student progress in the course.

How will student achievement be assessed?

The course offers a variety of formative and summative assessments within, including practice assignments, checkpoint quizzes, unit tests, and projects.

Prerequisites:

None

Textbook recommendation(s): Please include names of books, ISBN numbers and copyright dates

None

Facility (classroom, computer lab, lab) and technology (software and hardware) needed for course implementation:

The course will be facilitated through the Edgenuity online learning platform. Students will use a district-assigned Chromebook to access the course through Clever.

Budget for class (include all materials and supplies needed for course implementation with cost)

No additional costs are associated with the offering of this course.

Sign-offs

I believe this class will fill a need for students in our department.

_____ Date _____
Signature of department chairperson CHS

_____ Date _____
Signature of department chairperson NWHS

This course will fill a need for students in this grade level/department and will not negatively affect current course offerings. I also believe there will be student interest in this course.

_____ Date _____
Signature of guidance dept. Chairperson CHS

_____ Date _____
Signature of guidance dept. Chairperson NWHS

I approve the addition of this course in my building. The offering of this course will not necessitate the addition of any staff and can be housed in the current facilities available.

Christy Castee Date 6/12/24
Signature of building principal Transitions