

Warren County School District

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Design and Modeling (PLTW STEM COURSE)

Course Number: 00755

Course Prerequisites: None

Course Description:

Design and Modeling provides students opportunities to apply the design process to creatively solve problems. Students are introduced to the unit problem in the first activity and are asked to make connections to the problem throughout the lessons in the unit. Students learn and utilize methods for communicating design ideas through sketches, solid materials, and mathematical models. Students will understand how models can be simulated to represent an authentic situation and generate data for further analysis and observations. Students work in teams to identify design requirements, research the topic, and engage stakeholders. Teams design a toy or game for a child with cerebral palsy, fabricate and test it, and make necessary modifications to optimize the design solution.

Suggested Grade Level: 6 – 8

Length of Course: ☐ One Semester ☐ Two Semesters ☒ Other (9 week course)

Units of Credit: .25 Middle Level Credit (Insert *None* if appropriate)

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:
CSPG 33, CSPG 50, CSPG 53, CSPG 65

Certification verified by WCSD Human Resources Department: ☒ Yes ☐ No

TEXTBOOK AND SUPPLEMENTAL MATERIALS

Continue using Board approved textbook? ☐ Yes ☒ No (If yes, then complete the information below.)

Board Approved Textbooks, Software, Supplemental Materials:

Title: Project Lead the Way Durable and Consumable Resources

Publisher:

ISBN #:

Copyright Date:

Date of WCSD Board Approval:

BOARD APPROVAL:

Date Written: 8/28/2018

Date Approved: October 8, 2018; March 11, 2019 Revised Credit

Implementation Date: 2018-2019

SPECIAL EDUCATION AND GIFTED REQUIREMENTS

The teacher shall make appropriate modification to instruction and assessment based on a student's Individual Education Plan (IEP) or Gifted Individual Education Plan (GIEP).

COURSE OVERVIEW

(List the content to be taught)

For standards, essential questions, content, and skills see Curriculum Map – See attached course outline and academic standards taught within this course.

ASSESSMENT

Portfolio Assessment: ☐ Yes ☒ No

District-Wide Common Final Examination Required: ☐ Yes ☒ No

Course Challenge Assessment (Describe): None

WRITING TEAM: Warren County School District

WCSD STUDENT DATA SYSTEM INFORMATION

1. Is there a required final examination? ☐ Yes ☒ No
**Warren County School District Policy 9741 and 9744 state, "All classes in grades 9-12 shall have a final exam."*
2. Does this course issue a mark/grade for the report card? ☒ Yes ☐ No
3. Does this course issue a Pass/Fail mark? ☐ Yes ☒ No
4. Is the course mark/grade part of the GPA calculation? ☒ Yes ☐ No
5. Is the course eligible for Honor Roll calculation? ☒ Yes ☐ No
6. What is the academic weight of the course?

☐ No weight/Non credit☒ Standard weight☐ Enhanced weight