Phone: 713-688-1361 Website: www.houstonisd.org/waltrip

Practicum in STEM

Instructors: Mr. Rakha and Ms. Witherspoon "Spoony"
Email: swithers@houstonisd.org or adel.rakha@houstonisd.org
Room: 1106 and 1108
Off Periods: Rakha 1st and 4th / Spoony 3rd and 4th

Course Content

Practicum in STEM, is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Science, Technology, Engineering, and Mathematics (STEM) Career Cluster. Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

NOTE : The major reason students take a practicum is to provide additional time on task for learning specialized skills

Text

The textbooks for the course is Core Curriculum: Introductory Craft Skills Trainee Guide 5th Edition

About the Teacher

Stephanie "Spoony" Withespoon is a certified CTE instructor, a graduate of California Polytechnic State University in San Luis Obispo, CA with a BS in Agricultural Sciences and a Masters in Science Education for Northeastern State University in Tahlequah, OK. In addition to teaching courses in the Engineering and Fabrication Program of Study I coach the Waltrip robotics team and sponsor the Texas Technology Student Association. You will usually find me in the Waltrip FabLab making something cool or a mess.

Adel Rakha is a mechanical engineer and mechanical technologist, certified CTE instructor, an Indiana State University graduate , Alexandria University faculty of engineering graduate.

Ongoing Objectives

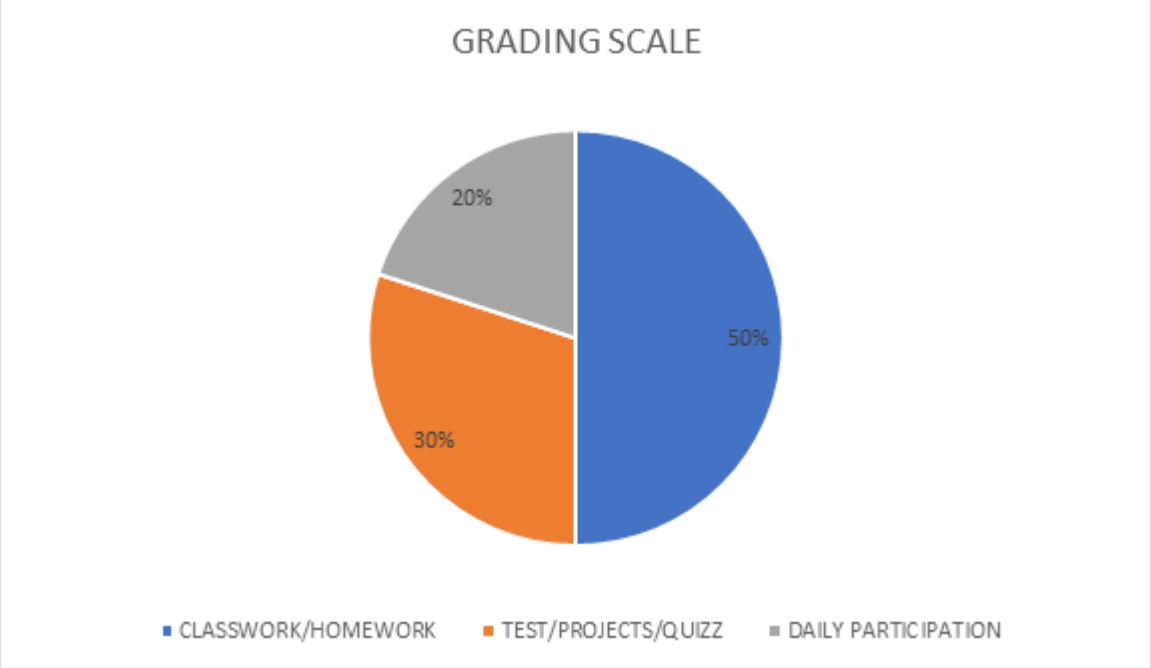
- Become a Certified SolidWorks Associate (CSWA) and Certified

SolidWorks Associate (CSWP)
- Become certified in Autodesk
- Earn Core NCCER Certification
- Developed Hard and Soft Skills for Employment

Portfolio

Students are required to maintain an organized digital portfolio for the course. It will be submitted as a grade during each project cycle. Portfolios are digital and are created on Google Site here is a sample portfolio

Grading Scale



Attendance and Participation

Attendance and participation are required; it is difficult to learn the content if you are not present in class. You class participation and attendance can be a deciding factor if your class average straddles two grades. Be sure to see me about any missed work if you are absent. In the event of an unexpected absence (i.e. illness, emergency, etc.), the student is responsible for ensuring that the absence is excused before assignments (available on the HUB) can be turned in and graded. Students will have three (3) days to turn in completed late work due to an excused absence. Students will be given at least one opportunity to submit late work following an absence. Grade penalties and the amount of time allowed to complete the assignment are as follows:

Late Work related to an absence:

3 days to turn in the assignment no points deducted full credit eligible for an excused absence

Late Work NOT related to an absence:

For each day late for an assignment or check point missed on a project 10 points will be deducted from

potential points possible until a 50% reduction is met. At the point that 50% credit is lost the student will need to email an explanation to their instructor concerning the assignment and 50% will be scored for the grade.

ASSESSMENT RETAKE POLICY

A student will be permitted to retake any major test. The retest must occur within five (5) school days of the date the grade was received. The higher of the two test grades will be recorded. This does not apply to final exams. CSWA retakes must wait at least 30 days per SolidWorks policy.

Online Teams Meeting Norms

Camera on (preferred)
Dressed for class
Microphone muted when not speaking
Raise hand for questions
Participate in chat – on task / on topic
Attentive – Sitting upright

Classroom Norms

Dressed for class
Follow all school rules
Keep volume level appropriate
Professional language only
Raise hand for questions
Participate in class discussions
Stay on task / on topic
Attentive – Sitting upright
Cell phones out of site

Daily Required Materials

1.laptop with charger 2.Laptop wireless or wired mouse (needed for CAD) 2.Writing Utensils 3.Project materials 4.Homework (late work by 11:59 PM)

Course Overview

Section 1: Science, Technology, Engineering, and Mathematics (STEM) Practicum
Introduction Section 2: Application of Communication Skills in the STEM Field
Section 3: Application of Research in the STEM Field
Section 4: Application of Problem-Solving Skills
Section 5: Application of Workforce Professionalism
Section 6: Application of Strong Work Ethics
Section 7: Application of Safety
Section 8: Teamwork in STEM
Section 9: Leadership in STEM
Section 10: Planning for a STEM Career
Section 11: Pursuing a STEM Career