WATERBURY PUBLIC SCHOOLS
Meeting Agenda

Group/Team:	BOE Curriculum Committee		
Location:	**Date of Meeting**	**Start Time:**	**Finish Time**
Virtually via ZOOM 1-646-876-9923 ID# 930 9212 8074	June 9, 2021	5:30 p.m.	

Team Norms:

1. All meetings will start on time
2. All issues will be approached with a positive attitude
3. A specific agenda will be set for all meetings
4. All team members will agree to stay on specific agenda topics
5. Decisions regarding future directions will be based upon actual data

Purpose of Meeting – Instructional Focus:

Agenda Items – (Items should reflect next steps from previous meeting.)

	Agenda Item	Time Allotted	Person Responsible
1.	Request approval of the following revised high school Science courses: a) Environmental Science b) Forensics c) Human Biology d) Human Biology with CPR/First Aid		Kari Nizzardo Darren Schwartz
2.	Request approval of the following new high school CTE courses: a) Introduction to Management Post b) NELTA: New England Laborers Training Association c) Drone Technology d) Drone Operator Prep Honors e) Manufacturing 3 honors f) Foundations of Leadership Post g) Financial Accounting Post h) Managerial Accounting Post i) Principles of Marketing Post j) Social Media Marketing Post k) If You Love It, Teach It UConn l) Intro to Special Education UConn m) Software Development 1 n) Software Development 2 o) Conceptual Engineering Milestones p) Engineering Design Project Honors q) Robotics 2 Honors		Michael Merati Darren Schwartz
3.	Request approval of the following new middle school CTE courses: a) Computer Science Explorations 1 b) Computer Science Explorations 2 c) Computer Science Explorations 3		Michael Merati Darren Schwartz

Waterbury Public Schools -Curriculum Committee

June 9, 2021

Title	Course Code	Credits (if Applicable)	Grade/s
ENVIRONMENTAL SCIENCE (S)	445	1.0	11/12
This NGSS-aligned course begins with the creation of Earth itself and the idea that all environmental systems consist of matter. Students will then move on to explore the use of energy and its impact on our planet. Carbon cycling and global warming will be investigated and students will be tasked with brainstorming ways to reduce their carbon footprint. Finally, students will dive into our oceans to study how acidification is affecting life under the water as well as the impact on the world above it. Human impact on the planet will be examined throughout the course and an underlying chemistry theme is present throughout. Students may choose this course in place of Chemistry in grade 11.			

Title	Course Code	Credits (if Applicable)	Grade/s
FORENSICS (S)	446	1.0	11-12
This NGSS-aligned course will focus on several forensic cases that need to be cracked. Students will be tasked with a hands-on, problem-solving approach to crime scene investigation. While students explore physical and chemical evidence found at crime scenes, they will study techniques such as fingerprint and handwriting examination and DNA analysis that will bring them closer and closer to solving the case.			

Title	Course Code	Credits (if Applicable)	Grade/s
HUMAN BIOLOGY (S) HUMAN BIOLOGY WITH CPR/1ST AID (S)	411/411K 411B	1.0	11-12
This NGSS-aligned, student-centered Human Biology course will focus on several medical mysteries. Students will engage in hands-on exploration of multiple body systems and their functions to undergo the process of solving these medical phenomena. The structure and function of the Skeletal, Muscular, Nervous, Endocrine, Cardiovascular, Respiratory, Digestive, Urinary, Integumentary, Immune, and Reproductive Systems will be investigated. This course is designed to prepare students for a career in the medical field. 411B integrates CPR/1st Aid course. Students will have an opportunity to obtain certification in both.			

Title	Course Code	Credits (if Applicable)	Grade/s
INTRODUCTION TO MANAGEMENT POST (H)	MGT105	1.0	11- 12
This course is an introduction to the principles of management examining their application in public and private, profit and non-profit organizations. Students will explore the areas of employee motivation, group behavior, leadership, strategic planning, organizational design, and career opportunities. Fundamental concepts of management, effective communication competency, ethical dilemmas faced by managers and corporate social responsibility will be explored. With successful completion of this course, students will receive college credit from Post University.			

Title	Course Code	Credits (if Applicable)	Grade/s
NELTA: NEW ENGLAND LABORERS TRAINING ASSOCIATION (S)	NELTA	0.5	12
Are you a senior interested in a high paying and rewarding career after graduation? Do you enjoy working outside and working with your hands? The Connecticut Pre-Apprenticeship High School Training Program may be for you. Students will learn the process for applying to the Laborers, Carpenters, Iron Workers, Electricians and Operating Engineers Unions. Students will also learn to wire a light fixture, mix and install concrete and take field trips to the apprenticeships training centers. Participants earn three certifications - CPR/First Aid, Flagger and OSHA 10. Students meet on one occasion each month for the entire school year. This course is in addition to a student's schedule and does not replace any other credit bearing courses. Students will be excused 1 day per month for either class instruction or field trips. Limit of 20 students per high school.			

Title	Course Code	Credits (if Applicable)	Grade/s
DRONE TECHNOLOGY * (S)	748	0.5	All Grades WCA Grades 11-12
In this flagship curriculum, the Milestone C team of aerospace professionals employ cutting-edge technologies and techniques to equip students with key professional skills pertinent not only to the drone industry, but also engineering at large. DTE students will learn about basic aerodynamics, unmanned aircraft architecture, and drone flight dynamics before applying the engineering process to design, build, and test fly their own drones in small teams, emulating a real-world aerospace engineering program from beginning to end. Following requirements analysis, design, manufacturing, and flight test, DTE students will embark on an engineering modification program, integrating wireless cameras and First-Person View (FPV) piloting systems on their drones. This one-of-a-kind aerospace experience culminates in a drone challenge, allowing student teams to compete against each other by applying the knowledge, skills, and experience gained during the course.			

Title	Course Code	Credits (if Applicable)	Grade/s
DRONE OPERATOR PREP HONORS * (S)	749	0.5	All Grades WCA Grades 11-12
The emergence of drones in everyday life has captured this generation's imagination and remotely-piloted systems are undoubtedly the way of the future! It is estimated there will be 100,000 new civilian unmanned aircraft jobs available by 2025 with an economic impact of 85 billion dollars. DOP focuses on drone aerodynamics, design architecture, careers, and offers extensive flight training opportunities on highly-realistic drone simulators. This curriculum also serves as an intensive FAA test prep course for students who wish to become licensed commercial drone operators. In a truly unique combination, DOP creates a hands-on laboratory environment for students to apply their previous STEM knowledge while opening doors for lucrative and prestigious future career opportunities.			

Title	Course Code	Credits (if Applicable)	Grade/s
MANUFACTURING 3 HONORS (S)	7737	1.0	10-12
Students will engage with topics in automation, manufacturing processes, computer modeling and various CNC (Computer Numerical Control) manufacturing equipment. Students will work in teams to apply the engineering design process to research, design, justify, and produce a finished product.			

Title	Course Code	Credits (if Applicable)	Grade/s
FOUNDATIONS OF LEADERSHIP POST (H)	MGT203	1.0	11- 12 Grade 11 WAMS
This course will heighten awareness and broaden the participant's knowledge of leadership theory, trends & applications, with a strong focus on ethical leadership. This course encompasses leadership/management theories, techniques, and applications, managing ethical gray areas with integrity, and integrating leadership skills into daily work practices. This course provides students with an overview of business structure/functions, leadership styles, managerial processes, strategic planning, and change-oriented ethical leadership and considers the impact of public policy on leaders. With successful completion of this course, students will receive college credit from Post University.			

Title	Course Code	Credits (if Applicable)	Grade/s
FINANCIAL ACCOUNTING POST (S)	ACC111	1.0	11-12 Grade 12 WAMS
This course is for the student to learn about accounting as an information development and communications function that supports economic decision-making. The course will help students perform financial analysis; derive and assess information for personal or organizational decisions; and understand business, governmental, and other organizational entities. With successful completion of this course, students will receive college credit from Post University.			

Title	Course Code	Credits (if Applicable)	Grade/s
MANAGERIAL ACCOUNTING POST (S)	ACC211	1.0	11-12 Grade 12 WAMS
This course provides a practical understanding of the use of accounting data driven processes by management in planning and controlling operations in all functions of the enterprise and in closing many alternate courses of action. With successful completion of this course, students will receive college credit from Post University.			

Title	Course Code	Credits (if Applicable)	Grade/s
PRINCIPLES OF MARKETING POST (H)	MKT200	1.0	12
This course examines the basic marketing principles practiced by modern organizations including product development, distribution, promotion and pricing. Students explore topics including consumer engagement, strategic planning, and best practices along with the importance of measurements, analysis and utilizing acquired data. With successful completion of this course, students will receive college credit from Post University.			

Title	Course Code	Credits (if Applicable)	Grade/s
SOCIAL MEDIA MARKETING POST (H)	MKT235	1.0	12
The course examines social media in general in order to focus on its integration with a marketing strategy. Students will learn to build social media marketing plans and do the necessary analysis to customize plans to organizations. The theoretical underpinnings of social media will be explored so that students will better understand social media's explosive popularity. Various social media marketing tools will be touched upon as well as the evolving nature of social media communication. With successful completion of this course, students will receive college credit from Post University.			

Title	Course Code	Credits (if Applicable)	Grade/s
IF YOU LOVE IT, TEACH IT UCONN (H)	8005	1.0	12
Prerequisite: Successful completion of three years of high school English. This is an educational foundations survey course for those who are interested in learning more about the landscape of K-12 education and how to connect their passions to it. If You Love it, Teach It engages students interested in working in K-12 settings in studies about teaching, learning, and schooling in the United States. It explores teaching and learning as processes that can relate to personal passions as well as how those passions are shaped, cultivated, or denied in different educational contexts. Course topics will include introductions to historical, philosophical, and social foundations of education, as well as how those foundations and personal passions relate to teaching as a profession, school organization, educational reform, and the reimagining of educational futures. ***Though this course is only a half year, students earn 3 UCONN credits and therefore will earn a full high school credit for successful completion of the course.***			

Title	Course Code	Credits (if Applicable)	Grade/s
INTRO TO SPECIAL EDUCATION UCONN (H)	8006	1.0	12
Prerequisite: Successful completion of three years of high school English. Students will become familiar with the history, laws, regulations and concepts related to exceptional students and special education in American schools. Students will also gain an understanding of the characteristics of certain exceptionalities and how these characteristics might impact student learning, while exploring their own attitudes regarding exceptional students and people with disabilities. Students will also gain an understanding of the roles of various professionals in working with exceptional students in American schools. ***Though this course is only a half year, students earn 3 UCONN credits and therefore will earn a full high school credit for successful completion of the course.***			

Title	Course Code	Credits (if Applicable)	Grade/s
SOFTWARE DEVELOPMENT 1 * (S)	766	0.5	All Grades WCA Grades 11-12
In today's global technology network, software is the single common thread tying all disciplines together. All STEM industries, without exception, benefit from the efforts of software developers, engineers, and integrators on a daily basis. This lighting-paced course will introduce students to how corporate software projects are developed, managed, integrated, and fielded. An interface-oriented approach to software development eliminates the need for any prior coding experience. Students will navigate this complex world following a project-based roadmap and leave with a significant sense of accomplishment and key professional skills after creating professional-caliber apps, games, and control algorithms. SD graduates will establish a solid foundation in software development principles. More importantly, they will gain a big-picture understanding of interface management and the engineering process at large			

Title	Course Code	Credits (if Applicable)	Grade/s
SOFTWARE DEVELOPMENT 2 * (S)	768	0.5	All Grades WCA Grades 11-12
Having gained knowledge in SD 1, students are thrust into a software development project to further their understanding, problem solving and teamwork skills. They will need to rely on team members to do their parts in order to complete the scope of the project on schedule. The students will gain a deep understanding of larger projects that incorporate software and harder integration to allow them to succeed in their future careers no matter what discipline or industry they end up in.			

Title	Course Code	Credits (if Applicable)	Grade/s
CONCEPTUAL ENGINEERING MILESTONES * (S)	763	0.5	All Grades WCA Grades 11-12
Designed by professionals with over 50 years of combined experience as Fortune 500 engineers and engineering managers, this course serves as a broad introduction to the world of corporate engineering. CEM is a horizon-broadening experience as much as a project-based laboratory to practice key professional skills required in all 21st century STEM industries including critical thinking, public speaking, task management, and effective teamwork & communication. Through a series of conceptual small-team projects culminating in a hands-on final project, CEM will test the limits of all students' critical-thinking and collaborative abilities. The primary objective is to open students' eyes to the wide variety of career opportunities available to them in 21st century engineering, how to pursue them, and what day-to-day life as a corporate engineer may entail.			

Title	Course Code	Credits (if Applicable)	Grade/s
ENGINEERING DESIGN PROJECT HONORS * (S)	764	0.5	All Grades WCA Grades 11-12
This course is the brainchild of engineers educated under the CDIO (Conceived-Design-Implement-Operate) Initiative developed at MIT in the late 1990s. The CDIO approach uses active learning tools, such as group projects and problem-based learning, to better equip engineering students with technical knowledge as well as communication and professional skills. Milestone C's EDP curriculum has been carefully crafted with a sharp technical focus to groom future design engineers. Student teams will embark on an extended design project emulating a real-world engineering program complete with requirements analysis, milestone reviews, schedule and budget management, and a detailed test program prior to fielding a complex, physical end-product. Students will benefit from the technical and soft skills acquired during this course for years to come, regardless of the career path they choose.			

Title	Course Code	Credits (if Applicable)	Grade/s
ROBOTICS 3 HONORS (S)	7797	1.0	10-12
VEX V5 can be coded using VEXcode, a coding environment that provides students with an authentic programming experience and enables their VEX robots to become an engine of invention. Students use the same tools and programming languages that professionals use every day. With VEXcode, students acquire workforce readiness, and develop their identity as a programmer. Students will go through the engineering design process for an open ended build.			

Title	Course Code	Credits (if Applicable)	Grade/s
COMPUTER SCIENCE EXPLORATIONS 1 COMPUTER SCIENCE EXPLORATIONS 2 COMPUTER SCIENCE EXPLORATIONS 3	6915_MS 7915_MS 8915_MS	1.0	6 7 8
CS Explorations 1 is an introductory computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. In this introductory course, students will learn the foundational concepts and skills of computer science (CS). They will explore using computers to solve problems and to express themselves. The course is designed to be engaging and relevant to student lives. Students build, remix and share animations, games, stories, music and art, in a collaborative environment. CS Explorations 2 is an introductory course based on MIT AI curricular resources for K-12 designed to help students explore Artificial Intelligence and it's far-reaching societal impacts in our world. The course is designed around engaging activities and learning units that integrate CS and computational thinking concepts with ethical design and responsible use, as students explore how these technologies can help solve problems and improve life for themselves and their communities. CS Explorations 3 is an introductory CS course designed to support the transition from block-based to text-based programming in Python, through engaging learning units and projects that explores CS through the lens of music, movies, and innovative tools including Earsketch music app, as a means for creative and social expression.			