OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	

2020-2021 STEM Testing Guide					

8704 Advanced Biotechnology I • Prerequisite Course: BioTeh II	Biotility – University of Florida: Biotechnician Assistant Credentialing Exam (8584) CLEP Natural Science (6405)		Biotechnology (8583)		120 hrs.
8717 Advance Biotechnology II • Prerequisite Course: Advanced BioTech I	Biotility – University of Florida: Biotechnician Assistant Credentialing Exam (8584) CLEP Natural Science (6405)		Biotechnology (8583)		120 hrs.
8826 Advanced Design Applications • Prerequisite Course: Engineering Design	Autodesk: Inventor Certified User (2756) Autodesk: Revit Certified User (2757)		Engineering Principles I (4598) Engineering Principles II (4599)	**Engineering by Design:** Engineering Design (4601) Adv Game Art Design (4602)	120 hrs.
8160 Advanced Programming • Prerequisite Course: None • OK Promise Computer Credit	**Choose 1:** ▪ *AP Computer Science A Exam (1727)* ▪ **OU:** Code Sooner (0207)		**Choose 1:** ▪ Computer Program IA (0210) ▪ Computer Program II Java (0211) ▪ Computer Programming IB Java (0212)	**Brainbench:** Java (0691)	120 hrs.
8866 Advanced Robotics Engineering • Prerequisite Course: *Robotic Engineering* • OK Promise Computer Credit	Autodesk: Inventor Certified User (2756) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)		Robotics II (4594)	**REC:** Robotics (*) Pre-Engineering (4596)	120 hrs.
8825 Advanced Technological Applications • Prerequisite Course:	Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)				120 hrs.
8862 Advanced Tech for Design Production Prerequisite Course:	Autodesk: Inventor Certified User (2756) Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)			**Engineering by Design:** Engineering Design (4601) Adv Game Art Design (4602)	120 hrs.
8868 Aeroponics/Hydroponics/Aquaponics • Prerequisite Course: None					120 hrs.
8853 AP Computer Science A (CSA) • Prerequisite Course: None • OK Promise Computer Credit	**Choose 1:** ▪ *AP Computer Science A Exam (1727)* ▪ **OU:** Code Sooner (0207)	PLTW EoC Computer Science A (4616)	**Choose 1:** ▪ Computer Program IA (0210) ▪ Computer Program II Java (0211) ▪ Computer Programming IB Java (0212)	**Brainbench:** Java (0691) CodeHS Java 1 (0204)	120 hrs.
8851 AP Computer Science Principles • Prerequisite Course: None • OK Promise Computer Credit	AP Computer Science Principles (1722)	PLTW EoC CS Principles (4614)	**Choose 1:** Computer Programming IB Java (0212) Computer Programming II Java (0211)	CodeHS JavaScript 1 (0205)	120 hrs.

OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	
8868 Aquaponics/Aeroponics/Hydroponics • Prerequisite Course: None					60 hrs.
8903 Architecture Computer Aided Drafting and Design • Prerequisite Course: None • OK Promise Computer Credit	Autodesk: Inventor Certified User (2756) Autodesk: AutoCAD Certified User (2755)		CAD Architectural Design I (2709) CAD Architectural Design II (2710)		120 hrs.

8874 Aviation I
    Launching into Aviation
    Exploring Aviation & Aerospace
	Remote Pilot Certificate - FAA 107 (2424)				120 hrs.

8875 Aviation II
    Introduction to Flight
    Aircraft Systems & Performance
	Remote Pilot Certificate - FAA 107 (2424)				120 hrs.

8876 Aviation III
    The Flying Environment & Nav
    Human Factors
    UAS Theory & Operations
	Remote Pilot Certificate - FAA 107 (2424)				120 hrs.

8718 Biomedical Health Careers • Prerequisite Course:	ODCTE: Workplace Readiness Skills (0454) ODCTE: Job Seeking & Retention Skills (0455)		21st Century Success Skills (0448) Preparing for College & Careers (0447)	**Microburst Learning:** Employability Soft Skills (0460)	120 hrs.
8702 Biotechnology I • Prerequisite Course: Survey of BioTech	Biotechnology (8582) CLEP Biology (6404)		Biotechnology (8583)		120 hrs.
8703 Biotechnology II • Prerequisite Course: Biotech I	Biotechnology (8582) CLEP Biology (6404)		Biotechnology (8583)		120 hrs.
8867 Computer Science Discoveries • Prerequisite Course: None • OK Promise Computer Credit	**Must pass all 3 components of test** **Certiport:** Internet & Computing Core Certification (IC^3) (0905)		▪ Exploring Computer Science (1725) ▪ Code.org End of Course Exam*	**ODCTE:** Fundamentals of Technology (0901)	120 hrs.
8852 Computer Science Essentials • Prerequisite Course: None • OK Promise Computer Credit	**Must pass all 3 components of test** **Certiport:** Internet & Computing Core Certification (IC^3) (0905)	PLTW EoC CS Essentials (4617)	**Choose 1:** ▪ Computer Technology (0902) ▪ IT, Introduction (1108)	**Brainbench (Choose 1):** ▪Computer Fundamentals (0951) ▪Computer Literacy (0969)	120 hrs.
8860 Computer Science Principles • Prerequisite Course: • OK Promise Computer Credit	AP Computer Science Principles (1712)	PLTW EoC CS Principles (4614)	Computer Programming IA (0210)		120 hrs.
8856 Core Applications of Science & Technology • Prerequisite Course:	Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)				120 hrs.

OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	
8858 Creativity & Innovations • Prerequisite Course:					120 hrs.
8256 Cybersecurity Basics • Prerequisite Course: None • OK Promise Computer Credit	**Microsoft:** MTA Security Fundamentals (1718)			**Brainbench:** Computer Fundamentals (0951) Information Technology Security Fundamentals (1509)	120 hrs.
8865 Design for the Production of Advanced Products • Prerequisite Course:	Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)				120 hrs.
8904 Engineering Computer Aided Drafting and Design • Prerequisite Course: None	Autodesk: Revit Certified User (2757) Autodesk: AutoCAD (2755) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)		CAD Mechanical Design I (2706) CAD Mechanical Design II (2707)		120 hrs.
8827 Engineering Design • Prerequisite Course: None	Autodesk: Inventor Certified User (2756) Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)		Engineering Technology (4597) Engineering Principles I (4598) Engineering Principles II (4599)		120 hrs.
8878 Engineering Essentials • Prerequisite Course: None	Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)	PLTW EoC: Engineering Essentials (*)			120 hrs.
8859 Fundamentals of Aerospace Technology • Prerequisite Course:					120 hrs.
8169 Fundamentals of Technology • Prerequisite Course: None • OK Promise Computer Credit	**Must pass all 3 components of test** **Certiport:** Internet & Computing Core Certification (IC³) (0905)		**Required Precision (Choose 1):** ▪ Computer Technology (0902) ▪ IT, Introduction (1108)	**Brainbench (Choose 1):** ▪Computer Fundamentals (0951) ▪Computer Literacy (0969) **ODCTE:** Fundamentals of Technology (0901)	120 hrs.
8873 Google Tools • Prerequisite Course: None • OK Promise Computer Credit	Google: G Suite (0142)				120 hrs.

OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	
8255 Internet of Things (IoT) • Prerequisite Course: None • OK Promise Computer Credit	**Choose 1:** •**CompTIA:** A+ (1504) •**Cisco:** End of Course Exam (1107)		**Required Precision (Choose 1):** ▪ Network Fundamentals (1151) ▪ Computer Programming IB Python (0208)		120 hrs.
8709 Introduction to Engineering Design • Prerequisite Course: None • OK Promise Computer Credit	Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363) Autodesk Fusion 360 Certified User (2764)	PLTW EoC Introduction to Engineering Design (4611)			120 hrs.
8857 Impact of Science & Technology • Prerequisite Course:					120 hrs.
8864 Mechatronic Systems for Advanced Production • Prerequisite Course:	Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)		**Required Precision (Choose 1):** •Digital Media IA 810 (4160) •Digital Media II (4162)		120 hrs.
8150 Multimedia & Image Manage Tech • Prerequisite Course: None • OK Promise Computer Credit	ACA Visual Design using Photoshop (0992) ACA Graphic Design & Illustration using Adobe Illustrator (0297) ACE Adobe Photoshop (4258) ACE Adobe Illustrator (4254)				
8715 PLTW Aerospace Engineering • Prerequisite Course: • OK Promise Science Credit	Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)	PLTW EoC Aerospace Engineering (4604)			120 hrs.
8719 PLTW Biomedical Innovation (Capstone) • Prerequisite Course: 2 PLTW courses • OK Promise Science Credit		Capstone (None)			120 hrs.
8713 PLTW Civil Engineering & Architecture • Prerequisite Course:	Autodesk: Revit Certified User (2757)	PLTW EoC Civil Engineering and Architecture (4607)			120 hrs.
8712 PLTW Computer Integrated Manufacturing • Prerequisite Course: • OK Promise Computer Credit	Autodesk: Inventor Certified User (2756) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)	PLTW EoC Computer Integrated Manufacturing (4608)			120 hrs.

OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	
8861 PLTW Cybersecurity • Prerequisite Course:	**Microsoft:** MTA Security Fundamentals (1718)	PLTW EoC Cybersecurity (*)			120 hrs.
8711 PLTW Digital Electronics • Prerequisite Course: • OK Promise Math Credit	Autodesk: Inventor Certified User (2756) Autodesk: Revit Certified User (2757)	PLTW EoC Digital Electronics (4603)			120 hrs.
8716 PLTW Engineering Design & Development • Prerequisite Course: • SDE approved Capstone	Autodesk: Inventor Certified User (2756) Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)	Capstone (None)			120 hrs.
8878 (PLTW) Engineering Essentials Prerequisite Course: None	Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)	PLTW EoC: Engineering Essentials (*)			120 hrs.
8854 PLTW Environmental Sustainability • Prerequisite Course: • OK Promise Science Credit		PLTW EoC Environmental Sustainability (4613)			120 hrs.
8707 PLTW Human Body Systems • Prerequisite Course: • OK Promise Science Credit		PLTW EoC Human Body System (4609)			120 hrs.
8709 (PLTW) Introduction to Engineering Design • Prerequisite Course: None • OK Promise Computer Credit	Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363) Autodesk Fusion 360 Certified User (2764)	PLTW EoC Introduction to Engineering Design (4611)			120 hrs.
8708 PLTW Medical Interventions • Prerequisite Course: • OK Promise Science Credit		PLTW EoC Medical Intervention (4612)			120 hrs.
8706 PLTW Principles of Biomedical Science • Prerequisite Course: • OK Promise Science Credit		PLTW EoC Principles of Biomedical Science (4606)			120 hrs.

OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	
8710 (PLTW) Principles of Engineering • Prerequisite Course: None • OK Promise Computer Credit	Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363) Autodesk Fusion 360 Certified User (2764)	PLTW EoC Principles of Engineering (4610)			120 hrs.
8871 Python • Prerequisite Course: None • OK Promise Computer Credit	Python Institute: Python Certified Association Programmer (*)		Choose 1: Computer Programming IB Python (0208) Computer Programming II Python (0209)		120 hrs.
8872 Renewable Energy • Prerequisite Course: None					120 hrs.
8833 Robotics Engineering • Prerequisite Course: None • OK Promise Computer Credit	REC Foundations: Robotic Certification (*) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)		Robotics I (4593)	**REC:** Robotics (*) Pre-Engineering (4596)	120 hrs.
8834 Robotics Engineering & Automation • Prerequisite Course: Robotics Engineering	REC Foundations: Robotic Certification (*)		Robotics I (4593)		120 hrs.
8849 Science and Technical Visualization I • Prerequisite Course:	Certiport: Autodesk Revit Certified User (2757)		3D Graphics (0608)		120 hrs.
8850 Science and Technical Visualization II • Prerequisite Course: Science and Technical Visualization I	Certiport: Autodesk Revit Certified User (2757)		3D Graphics (0608)		120 hrs.
8870 Space Engineering Concepts • Prerequisite Course: None • OK Promise Computer Credit	AGI: STK Certification Level 1 (*) AGI: STK Certification Level 2 (*) AGI: STK Certification Level 3 (*)				120 hrs.
8705 STEM **Capstone** • *Prerequisite Course: At least 240 hours in related*	No tests required for this course. It is used to demonstrate mastery in the field through the pursuit of advanced certifications, complete advanced projects with limited supervision, or used for an OJT (on the job training) component.				120 hrs.
8869 STEM Core • Prerequisite Course: Technology Center only	Test will vary			**Microburst Learning:** Employability Soft Skills (0460)	120 hrs.

OCAS Course Number and Name	Choice of Certification Test				Hrs.
	National Certification Test - Owner of Test	PLTW	Precision	Other Test	
8701 Survey of Biotechnology • Prerequisite Course: None	Biotechnology (8582)				120 hrs.
8863 System of Advanced Technology • Prerequisite Course:	Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)				120 hrs.
8848 Technological Design • Prerequisite Course:	Autodesk: Inventor Certified User (2756) Autodesk: Revit Certified User (2757) Starrett Angle Measurement (2358) Starrett Caliper Measurement (2359) Starrett Micrometer Measurement (2362) Starrett Tape and Rule Measurement (2363)			**Engineering by Design:** Engineering Design (4601) Adv Game Art Design (4602)	120 hrs.
8828 Technology Foundations • Prerequisite Course:	Autodesk: AutoCAD (2755)		CAD Architectural Design I (2709)	**Engineering by Design:** Engineering Design (4601) Adv Game Art Design (4602)	120 hrs.
8847 Technology and Society • Prerequisite Course:					120 hrs.
8855 The Nature of Science & Technology Prerequisite Course: None					120 hrs.
4615 AP Calculus - AB	AP Calculus -- AB (0080)				
4616 AP Calculus - BC	AP Calculus – BC (0081)				
4760 AP Statistics	AP Statistics (0082)				
5213 AP Physics I – Algebra Based	AP Physics 1 – Algebra Based (4589)				
5214 AP Physics II – Algebra Based	AP Physics 2 – Algebra Based (4590)				
5216 AP Physics C – Mechanics	AP Physics C – Mechanics (4591)				
5217 AP Physics C – Electricity & Magnetism	AP Physics C – Electricity & Mag (4592)				
5121 AP Environmental Science	AP Environmental Science (6401)				
5035 AP Biology	AP Biology (6402)				
5055 AP Chemistry	AP Chemistry (6403)				

Approved Assessment List: http://www.okcareertech.org/educators/assessments-and-testing/testing
Use above link for find assessment code, name, assessment vendor, cluster, cost, work keys, SOC, ONET Level, PLA, CCA, etc.

Approved Assessment Request form: http://www.okcareertech.org/educators/assessments-and-testing/testing
Use the above link to request a test for approval.

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