Mississippi Introduction to Unmanned Aircraft Systems

STANDARDS
ALIGNMENT
&
SCOPE and SEQUENCE

Lesson Sequence	Lesson Title	Days of Teaching
1	CTSOs: Enhancing the Student Experience	6
2	Community Service	4
3	Basic Workplace Competencies	4
4	Introduction to Professional Communication	6
5	Leadership & Team Dynamics	5
6	Pathway to Certification: Regulating Airspace	2
7	Pathway to Certification: Recreational & Commercial Use	2
8	Reg & Op Rules: Eligibility for Part 107 Certification	1
9	Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight	2
10	Airspace Classifications & Operating Requirements: Airspace Designations	2
11	Airframes: Early Multirotor Aircraft Designs	2
12	Airframes: Advancements & Multicopter Configurations	4
13	Beginning Flight Skills: Flight Skills	4
14	Advanced Flight Skills	4
15	Drone Theory & Aeronautical Basics: Mechanical Design Airplane & Three Axes of Flight	1
16	Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace	5
17	Airspace Class & Op Requirements: AGL, MSL, Military Training Rts & Airspace	2
18	sUAS Loading & Performance: Stability, Payload, Speeds & Altitude	1
19	Introduction to Drones: Drone Components	3
20	Airframes - Airframe Characteristics & the History of Helicopter Design	4
21	Introduction to Drones: Overview	2
22	Introduction to Drones: Current Uses & Future Potential	5
23	Regulations & the FAA: Commercial Drone Use	2
24	Common Sense Flying: Determining the Purpose & Configuration Suggestions	1
25	Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane	2
26	Maintenance & Battery Care: Logging Flights	1
27	Regulations & the FAA: Recreational Drone Use	2
28	Safety Considerations: Drone Knowledge	4
29	Common Sense Flying: Safe Flying	2
30	Safety Considerations: Privacy Policies & Flight Procedures	2
31	Maintenance & Battery Care: Lithium Polymer Batteries	3
32	Basics of Flight: Safe Conditions & Pilot-in-Command	2
33	Common Sense Flying: Development & Regulations	2
34	Regulations & the FAA: Regulating Airspace	2
35	Reg & Op Rules: Requirements for Flight	1
36	Airspace Classification & Operating Requirements: Notices to Airmen & Temp Flight Rest	1
37	Reg & Op Rules: Authorization & Operation	2
38	Beginning Flight Skills: Controller Basics & Maneuvering Terminology	1
39	Drone Theory & Aeronautical Basics: Drone Components	3
40	Flight Controllers: Sense-&-Avoid, the Flight Purpose & Flight Controller Categories	2
41	Transmitters & Receivers: Maneuvering, Controllers/Transmitters & Modes	2
42	Basics of Flight: How Multicopters Fly	3
43	Reg & Op Rules: Hazardous Operations & Change of Address	1
44	Emergency Flight Procedures: Lost Link & Fly-Away Procedures	2
45	Electronic Speed Controllers: Introduction to ESCs	1
46	Flight Controllers: Sensors & Guidance Systems	2
47	Propellers: Propeller Safety & Balancing	2

* Days of Teaching identifies the number of days a lesson may take if all lesson plan items (i.e., activities, projects, handouts, etc.) are utilized as written by iCEV curriculum writers. Flexibility within the lesson plan allows instructor autonomy of implementation for each item.

Introduction to Unmanned Aircraft Systems

MS_2025_235130_1.1.a
Introduction to UAS and Student Organizations. Discuss the benefits of participating in a program area student organization related to unmanned aircraft systems (UAS) technology, such as a community-based organization (CBO) (i.e.,
CTSOs: Enhancing the Student Experience
PowerPoint - CTSOs: Enhancing the Student Experience (All Slides)
Activity - Describe the Benefits
Project - Information Brochure
MS_2025_235130_1.1.b
Introduction to UAS and Student Organizations. Discuss the benefits of participating in a program area student organization related to unmanned aircraft systems (UAS) technology, such as a community-based organization (CBO) (i.e.,
CTSOs: Enhancing the Student Experience
PowerPoint - CTSOs: Enhancing the Student Experience (All Slides)
Activity - Describe the Benefits
Project - Information Brochure
MS_2025_235130_1.1.c
Introduction to UAS and Student Organizations. Discuss the benefits of participating in a program area student organization related to unmanned aircraft systems (UAS) technology, such as a community-based organization (CBO) (i.e.,
CTSOs: Enhancing the Student Experience
PowerPoint - CTSOs: Enhancing the Student Experience (All Slides)
Activity - Describe the Benefits
Project - Information Brochure
MS_2025_235130_1.1.d
Introduction to UAS and Student Organizations. Discuss the benefits of participating in a program area student organization related to unmanned aircraft systems (UAS) technology, such as a community-based organization (CBO) (i.e.,
CTSOs: Enhancing the Student Experience
PowerPoint - CTSOs: Enhancing the Student Experience (All Slides)
Activity - Describe the Benefits
Project - Information Brochure
MS_2025_235130_1.2
Introduction to UAS and Student Organizations. Establish and charter a CBO and participate in club programming and
CTSOs: Enhancing the Student Experience
PowerPoint - CTSOs: Enhancing the Student Experience (Slide 66)
Project - Information Brochure
MS_2025_235130_1.3.a
Introduction to UAS and Student Organizations. Explore opportunities provided by student organizations (i.e., Technology
CTSOs: Enhancing the Student Experience
PowerPoint - CTSOs: Enhancing the Student Experience (Slides 50 -57)
Activity - Describe the Benefits
MS_2025_235130_1.3.b
Introduction to UAS and Student Organizations. Explore opportunities provided by student organizations (i.e., Technology Student Association [TSA], SkillsUSA). Work as a team to design a community service project for which the knowledge and
Community Service
PowerPoint - Community Service (Slides 5- 20)
Activity - Community Service Personal Reflection

MS_2025_235130_1.4.a
Introduction to UAS and Student Organizations. Demonstrate effective communication skills in career development. Demonstrate and describe the importance of effective communication skills, including verbal, nonverbal, writing, and
Basic Workplace Competencies
PowerPoint - Basic Workplace Competencies (slides 5-14)
Activity - Workplace Email
Student Handout - Workplace Compentencies Examples
Introduction to Professional Communication
PowerPoint - Introduction to Professional Communication (Slides 16-22; 40-61)
Project - Memo!
MS_2025_235130_1.4.b
Introduction to UAS and Student Organizations. Demonstrate effective communication skills in career development. Apply
Introduction to Professional Communication
PowerPoint - Introduction to Professional Communication (slides 16-61)
Activity - Interpersonal Communication
Activity - Talking Stick
Student Handout - Forms of Communication
MS_2025_235130_1.5.a
Introduction to UAS and Student Organizations. Demonstrate leadership- and team-building skills in class- and work-
Leadership & Team Dynamics - UPDATED
PowerPoint - Leadership & Team Dynamics (Slides 5, 8, 27-40, 44-47)
Activity - Team Development Knot
MS_2025_235130_1.5.b
Introduction to UAS and Student Organizations. Demonstrate leadership- and team-building skills in class- and work-
Leadership & Team Dynamics - UPDATED
PowerPoint - Leadership & Team Dynamics (Slides 10-20, 37-40)
Project - Leadership in Action
MS_2025_235130_1.5.c
Introduction to UAS and Student Organizations. Demonstrate leadership- and team-building skills in class- and work-
Leadership & Team Dynamics - UPDATED
PowerPoint - Leadership & Team Dynamics (Slides 6-10, 24-25)

MS_2025_235130_1.6.a
Introduction to UAS and Student Organizations. Explore the history, development, and future of UAS Define terms associated with UAS and operation: Advisory circulars (AC), Aeronautical, Aircraft, Airspace, Airspace restrictions, Applicable AC and regulations related to commercial use (i.e., 14 CFR § 107 and 135, or current law), Applicable AC and regulations related to recreational use (i.e., 14 CFR § 48, or current law, Aviation, Civil twilight, Drone, Federal Aviation
Pathway to Certification: Regulating Airspace
PowerPoint - Pathway to Certification: Regulating Airspace (All Slides)
Activity - Comprehension Questions: Regulating Airspace
Pathway to Certification: Recreational & Commercial Use
PowerPoint - Pathway to Certification: Recreational & Commercial Use (All Slides)
Activity - Comprehension Questions: Recreational & Commercial Use
Reg & Op Rules: Eligibility for Part 107 Certification
PowerPoint - Regulations & Operating Rules - Eligibility for Part 107 Certification (All Slides)
Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight
PowerPoint - Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight (Slides 3-12)
Activity - Comprehension Questions: Daylight Operation Regulations & Visual-Line-of-Sight
Airspace Classifications & Operating Requirements: Airspace Designations
PowerPoint - Airspace Classifications & Operating Requirements: Airspace Designations (All Slides)
Activity - Comprehension Questions: Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight
Airframes: Early Multirotor Aircraft Designs
PowerPoint - Airframes: Early Multirotor Aircraft Designs (All Slides)
Airframes: Advancements & Multicopter Configurations
PowerPoint - Airframes: Advancements & Multicopter Configurations (All Slides)
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine
Drone Theory & Aeronautical Basics: Mechanical Design Airplane & Three Axes of Flight
PowerPoint - Drone Theory & Aeronautical Basics: Mechanical Design Airplane & Three Axes of Flight (All Slides)
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace
PowerPoint - Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace (All Slides)
Airspace Class & Op Requirements: AGL, MSL, Military Training Rts & Airspace
PowerPoint - Airspace Class & Op Requirements: AGL, MSL, Military Training Rts & Airspace (All Slides)
sUAS Loading & Performance: Stability, Payload, Speeds & Altitude
PowerPoint - sUAS Loading & Performance: Stability, Payload, Speeds & Altitude (All Slides)
Introduction to Drones: Overview
PowerPoint - Introduction to Drones: Overview (All Slides)

MS_2025_235130_1.6.b
Introduction to UAS and Student Organizations. Explore the history, development, and future of UAS. Research and
Airframes - Airframe Characteristics & the History of Helicopter Design
PowerPoint - Airframes - Airframe Characteristics and The History of Helicopter Designs (Slides 9-29)
Activity - Comprehension Questions: Airframe Characteristics & The History of Helicopter Designs
Airframes: Early Multirotor Aircraft Designs
PowerPoint - Airframes - Early Multirotor Aircraft Designs (All Slides_
Activity - Comprehension Questions: Early Multirotor Aircraft Designs
Introduction to Drones: Overview
PowerPoint - Introduction to Drones - Overview (Slides 9-14)
Activity - Comprehension Questions: Overview
MS_2025_235130_1.6.c
Introduction to UAS and Student Organizations. Explore the history, development, and future of UAS. Discuss the current
Introduction to Drones: Current Uses & Future Potential
PowerPoint - Introduction to Drones - Current Uses and Future Potential (All Slides)
Activity - Comprehension Questions: Current Uses & Future Potential
MS_2025_235130_1.6.d
Introduction to UAS and Student Organizations. Explore the history, development, and future of UAS. Research
Airframes: Advancements & Multicopter Configurations
PowerPoint - Airframes - Advancement and Multicopter Configurations (Slides 9-10; 17-20)
Activity - Comprehension Questions: Advancements & Multicopter Configurations
Project - Team Design Challenge: Distributed Flight Array
Introduction to Drones: Current Uses & Future Potential
PowerPoint - Introduction to Drones - Current Uses and Future Potential (Slides 12, 21-22)
Activity - Comprehension Questions: Current Uses & Future Potential
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (Slides 36-37)
MS_2025_235130_1.7.a
Introduction to UAS and Student Organizations. Compare and contrast the common configurations of rotary- and fixed-wing UAS. Identify common rotary aircraft configurations, including single-rotor, tri-rotor, quad-rotor, hex-rotor, and octo-
Introduction to Drones: Drone Components
Activity - Configuration Suggestions
Introduction to Drones: Overview
PowerPoint - Introduction to Drones - Overview (Slides 18-24)
Activity - Comprehension Questions: Overview
MS_2025_235130_1.7.b
Introduction to UAS and Student Organizations. Compare and contrast the common configurations of rotary- and fixed-
Common Sense Flying: Determining the Purpose & Configuration Suggestions
PowerPoint - Common Sense Flying - Determining the Purpose (All Slides)
Introduction to Drones: Overview
PowerPoint - Introduction to Drones - Overview (Slides 20, 25-28)
Activity - Comprehension Questions: Overview
MS_2025_235130_1.7.c
Introduction to UAS and Student Organizations. Compare and contrast the common configurations of rotary- and fixed-
Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basics of Flight - Four Forces of Flight & Mechanical Design of an Airplane (Slides 13-20)
Drone Theory & Aeronautical Basics: Mechanical Design Airplane & Three Axes of Flight
PowerPoint - Drone Theory and Aeronautical Basics - MD of an Airplane & Three Axes of Flight (Slides 4, 7, 9)

MS_2025_235130_1.7.d
Introduction to UAS and Student Organizations. Compare and contrast the common configurations of rotary- and fixed-
Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basics of Flight - Four Forces of Flight & Mechanical Design of an Airplane (Slides 13-20)
Drone Theory & Aeronautical Basics: Mechanical Design Airplane & Three Axes of Flight
PowerPoint - Drone Theory and Aeronautical Basics - MD of an Airplane & Three Axes of Flight (Slides 4, 7, 9)
MS_2025_235130_1.7.e
Introduction to UAS and Student Organizations. Compare and contrast the common configurations of rotary- and fixed-wing UAS. Discuss applications and describe possible missions for both rotary- and fixed-wing aircraft, discussing the
Airframes: Advancements & Multicopter Configurations
PowerPoint - Airframes - Advancement and Multicopter Configurations (Slides 21-25)
Activity - Comprehension Questions: Advancements & Multicopter Configurations
MS_2025_235130_1.8
Introduction to UAS and Student Organizations. Develop and maintain an official flight log to record hours of flight and
Maintenance & Battery Care: Logging Flights
PowerPoint - Maintenance and Battery Care - Logging Flights (All Slides)
Activity - Comprehension Questions: Logging Flights
MS_2025_235130_1.9
Introduction to UAS and Student Organizations. Complete any necessary steps required by the FAA or other organizations to become eligible to fly a UAS recreationally (i.e., The Recreational UAS Safety Test [TRUST] or other current
Regulations & the FAA: Recreational Drone Use
PowerPoint - Regulations & the FAA (All Slides)
Activity - CQs Recreational Drone Use
Activity - Unit Application
Safety Considerations: Drone Knowledge
Activity - Comprehension Questions: Drone Knowledge
PowerPoint-Safety Considerations: Drone Knowledge (Slides 13-25)
MS_2025_235130_2.1.a
UAS Safety Regulations and Operational Policies. Using Federal Aviation Administration (FAA) guidelines, define the types
Regulations & the FAA: Regulating Airspace
PowerPoint-Regulations & the FAA: Regulating Airspace (All Slides)
Activity - CQs Regulating Airspace
MS_2025_235130_2.1.b
UAS Safety Regulations and Operational Policies. Demonstrate an understanding of safety guidelines and operational rules related to unmanned aircraft system (UAS) operation and use safety guidelines regarding the operation and use for each
Common Sense Flying: Safe Flying
PowerPoint - Common Sense Flying - Safe Flying (All Slides)
Activity - Comprehension Questions: Safe Flying
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (Slides 7-35)
Activity - CQs Commercial Drone Use
Student Handout - Risk Categories
Regulations & the FAA: Recreational Drone Use
PowerPoint - Regulations & the FAA (All Slides)
Safety Considerations: Drone Knowledge
PowerPoint - Safety Considerations - Drone Knowledge (Slides 13-14; 20-25)
Activity - Comprehension Questions: Drone Knowledge
Safety Considerations: Privacy Policies & Flight Procedures
PowerPoint - Safety Considerations - Privacy Policies & Flight Procedures (Slides 5-12; 15-30)
Activity-Comprehension Questions: Safety Considerations -Privacy Policies & Flight Procedures

MS_2025_235130_2.1.c
UAS Safety Regulations and Operational Policies. Demonstrate an understanding of safety guidelines and operational rules related to unmanned aircraft system (UAS) operation and use. Describe basic safety regarding the use of batteries in a
Maintenance & Battery Care: Lithium Polymer Batteries
PowerPoint - Maintenance and Battery Care - Lithium Polymer Batteries (All Slides)
MS_2025_235130_2.1.d
UAS Safety Regulations and Operational Policies. Demonstrate an understanding of safety guidelines and operational rules related to unmanned aircraft system (UAS) operation and use. Describe the effects of weather conditions on safe UAS
Basics of Flight: Safe Conditions & Pilot-in-Command
PowerPoint - Basics of Flight - Safe Conditions & Pilot-in-Command (Slides 5-14)
Activity - Comprehension Questions - Safe Conditions & Pilot-in-Command
Common Sense Flying: Safe Flying
PowerPoint - Common Sense Flying - Safe Flying (Slides 3-11)
Activity - Comprehension Questions: Safe Flying
Safety Considerations: Privacy Policies & Flight Procedures
PowerPoint - Safety Considerations - Privacy Policies & Flight Procedures (Slides 13-14)
Activity - Comprehension Questions: Policies & Flight Procedures
MS_2025_235130_2.1.e
UAS Safety Regulations and Operational Policies Demonstrate an understanding of safety guidelines and operational rules
Regulations & the FAA: Regulating Airspace
PowerPoint - Regulations & the FAA (Slides 30-37)
MS_2025_235130_2.1.f
UAS Safety Regulations and Operational Policies. Demonstrate an understanding of safety guidelines and operational rules related to unmanned aircraft system (UAS) operation and use. Relate ethical flight operation to safely operating a UAS.
Common Sense Flying: Development & Regulations
PowerPoint - Common Sense Flying - Development and Regulations (Slides 11-14)
Safety Considerations: Privacy Policies & Flight Procedures
PowerPoint - Safety Considerations - Privacy Policies & Flight Procedures (Slides 3-4)
MS_2025_235130_2.2.a
UAS Safety Regulations and Operational Policies. Investigate and formulate your understanding of community standards for recreational and hobby aircraft used in education as set by the community-based organization (CBO) (i.e., Academy of
Common Sense Flying: Development & Regulations
PowerPoint - Common Sense Flying - Development and Regulations (Slide 11)
MS_2025_235130_2.2.b
UAS Safety Regulations and Operational Policies. Investigate and formulate your understanding of community standards for recreational and hobby aircraft used in education as set by the community-based organization (CBO) (i.e., Academy of
Common Sense Flying: Development & Regulations
PowerPoint - Common Sense Flying - Development and Regulations (Slides 6 -16)
Activity - Comprehension Questions: Development & Regulations
MS_2025_235130_2.2.c
UAS Safety Regulations and Operational Policies. Investigate and formulate your understanding of community standards for recreational and hobby aircraft used in education as set by the community-based organization (CBO) (i.e., Academy of
Common Sense Flying: Development & Regulations
PowerPoint - Common Sense Flying - Development and Regulations (Slide 11)
Common Sense Flying: Safe Flying
PowerPoint - Common Sense Flying - Safe Flying (Slide 23)

MS_2025_235130_2.3.a
UAS Safety Regulations and Operational Policies. Explain the concept of airspace and how it defines where a UAS can be flown. Identify altitude, speed, and weather restrictions as described in the FAA Part 107 guidelines.
Reg & Op Rules: Requirements for Flight
PowerPoint - Regulations & Operating Rules - Requirements for Flight (Slides 3-7)
MS_2025_235130_2.3.b
UAS Safety Regulations and Operational Policies. Explain the concept of airspace and how it defines where a UAS can be flown. Identify and describe the types of airspace where UAS operation is prohibited without proper waivers or approvals in place: Class A, B, C, D, or E airspace, within restricted airspace, temporary flight restrictions (TFRs) (i.e., sporting events,
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace
PowerPoint - Airspace Classifications & Operating Requirements Aeronautical Charts & Classes (All Slides)
Activity - Airspace Classifications
Activity - Special Use Airspace
Airspace Classification & Operating Requirements: Notices to Airmen & Temp Flight Rest
PowerPoint - Airspace Classifications & Operating Requirements - Notices & Flight Restrictions (All Slides)
Common Sense Flying: Development & Regulations
PowerPoint - Common Sense Flying - Development and Regulations (Slides 7-10)
Reg & Op Rules: Authorization & Operation
PowerPoint - Regulations & Operating Rules - Authorization (All Slides)
Safety Considerations: Privacy Policies & Flight Procedures
PowerPoint - Safety Considerations - Privacy Policies & Flight Procedures (Slides 8-12)
MS_2025_235130_2.3.c
UAS Safety Regulations and Operational Policies. Explain the concept of airspace and how it defines where a UAS can be flown. Investigate a UAS flight plan using the appropriate airspace application or other current applications that include
Reg & Op Rules: Authorization & Operation
PowerPoint - Regulations & Operating Rules - Authorization (Slides 23 -28)
MS_2025_235130_3.1.a
UAS Flight Simulation. Demonstrate proficiency in operating equipment used in unmanned aircraft systems (UAS) flight. Define and discuss terms associated with flight simulation: Radio transmitter/controller, Toggle switches, Trim buttons,
Basics of Flight: Safe Conditions & Pilot-in-Command
PowerPoint - Basics of Flight - Safe Conditions & Pilot-in-Command (Slides 5-14)
Beginning Flight Skills: Controller Basics & Maneuvering Terminology
PowerPoint - Beginning Flight Skills - Controller Basics (Slides 3-5)
Drone Theory & Aeronautical Basics: Drone Components
PowerPoint- Drone Theory & Aeronautical Basics: Drone Components (Slides 6 -7, 36-42, 44-47, 54)
Activity - Drone Components
Flight Controllers: Sense-&-Avoid, the Flight Purpose & Flight Controller Categories
PowerPoint - Flight Controllers (Slides 14 -26)
Transmitters & Receivers: Maneuvering, Controllers/Transmitters & Modes
PowerPoint - Transmitters & Receivers (Slides 5, 18, 26)
MS_2025_235130_3.2.a
UAS Flight Simulation. Describe functions of aircraft control surfaces and how they are used to fly. Identify the throttle, rudder, elevator, aileron, flaps, and any combination of those surfaces and their respective functions in flight.
Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basics of Flight - Four Forces of Flight & Mechanical Design of an Airplane (Slides 13 -20)
Activity - Comprehension Questions - Four Forces of Flight & Mechanical Design of an Airplane
Transmitters & Receivers: Maneuvering, Controllers/Transmitters & Modes
PowerPoint - Transmitters & Receivers (Slides 21-25)

MS_2025_235130_3.3.a
UAS Flight Simulation. Compare UAS aircraft types by initial simulated flight experience. Complete a fixed-wing flight
Introduction to Drones: Overview
PowerPoint - Introduction to Drones - Overview (All Slides)
Activity - Comprehension Questions: Overview
Basics of Flight: How Multicopters Fly
PowerPoint - Basics of Flight - How Multicopters Fly (Slides 3-20)
MS_2025_235130_3.3.b
UAS Flight Simulation. Compare UAS aircraft types by initial simulated flight experience. Complete a multirotor flight
Basics of Flight: How Multicopters Fly
PowerPoint - Basics of Flight - How Multicopters Fly (Slides 3-20)
MS_2025_235130_3.3.c
UAS Flight Simulation. Compare UAS aircraft types by initial simulated flight experience. Complete a vertical takeoff and
Beginning Flight Skills: Controller Basics & Maneuvering Terminology
PowerPoint - Beginning Flight Skills: Controller Basics & Maneuvering Terminology (All Slides)
MS_2025_235130_3.3.d
UAS Flight Simulation. Compare UAS aircraft types by initial simulated flight experience. Relate aircraft flight
Basics of Flight: How Multicopters Fly
PowerPoint - Basics of Flight - How Multicopters Fly (Slides 21-38)
Activity - Calculating Resulting Magnitude & Direction of Applied Forces
MS_2025_235130_3.4.a
UAS Flight Simulation. Recall safety guidelines for operation of the various types of UAS Differentiate between the
Reg & Op Rules: Hazardous Operations & Change of Address
PowerPoint - Regulations & Operating Rules - Hazardous Operations (13-16, 19)
Safety Considerations: Drone Knowledge
PowerPoint - Safety Considerations - Drone Knowledge (Slides 24-25)
MS_2025_235130_3.5.a
UAS Flight Simulation. Demonstrate safe, consistent multirotor flight through a simulation practical test. Takeoff and
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills - Flight Skills (Slides 8-25)
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
MS_2025_235130_3.5.b
UAS Flight Simulation. Demonstrate safe, consistent multirotor flight through a simulation practical test. Land on a
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills - Flight Skills (Slides 11-23)
Activity - Skill One
Activity - Skill Two
MS_2025_235130_3.5.c
UAS Flight Simulation. Demonstrate safe, consistent multirotor flight through a simulation practical test. Fly a straight line
Advanced Flight Skills
PowerPoint - Advanced Flight Skills (Slides 6-9)
Activity - Skill Five
MS_2025_235130_3.5.d
UAS Flight Simulation. Demonstrate safe, consistent multirotor flight through a simulation practical test. Fly a straight line
Advanced Flight Skills
PowerPoint - Advanced Flight Skills (Slides 10-11)
Activity - Skill Six

MS_2025_235130_3.5.e
UAS Flight Simulation.Demonstrate safe, consistent multirotor flight through a simulation practical test. Fly left and right
Advanced Flight Skills
PowerPoint - Advanced Flight Skills (Slides 10-11)
Activity - Skill Six
MS_2025_235130_3.5.f
UAS Flight Simulation. Demonstrate safe, consistent multirotor flight through a simulation practical test. Fly a figure-eight
Advanced Flight Skills
PowerPoint - Advanced Flight Skills (Slides 26 -27)
Activity - Skill Nine
MS_2025_235130_3.5.g
UAS Flight Simulation. Demonstrate safe, consistent multirotor flight through a simulation practical test. Emergency
Emergency Flight Procedures: Lost Link & Fly-Away Procedures
PowerPoint - Emergency Flight Procedures (All Slides)
Activity - CQs Lost Link and Fly Away Procedures
MS_2025_235130_4.1.a
Multirotor Flight. Identify and describe parts of a multirotor drone and discuss how each part interacts. Explain and describe the following parts for identification and preflight check purposes: Aircraft orientation markers, Battery system,
Drone Theory & Aeronautical Basics: Drone Components
PowerPoint - Drone Theory & Aeronautical Basics - Drone Components (Slides 8-42; 51)
Activity - Drone Components
Electronic Speed Controllers: Introduction to ESCs
PowerPoint - Electronic Speed Controllers (All Slides)
Activity - CQs Introduction to ESCs
Flight Controllers: Sensors & Guidance Systems
PowerPoint - Flight Controllers (Slides 23 -30)
Propellers: Propeller Safety & Balancing
PowerPoint - Propellers (All Slides)
Activity - CQs Propeller Safety and Balancing
MS_2025_235130_4.1.b
Multirotor Flight. Identify and describe parts of a multirotor drone and discuss how each part interacts. Discuss the
Drone Theory & Aeronautical Basics: Drone Components
PowerPoint - Drone Theory & Aeronautical Basics - Drone Components (All Slides)
Activity - Drone Components
MS_2025_235130_4.2.a
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Take off and hover for a set period
Beginning Flight Skills: Flight Skills
Activity - Skill One
Activity - Skill Three
Activity - Skill Two
MS_2025_235130_4.2.b
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Land on a designated target.
Beginning Flight Skills: Flight Skills
Activity - Skill Two
MS_2025_235130_4.2.c
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly a straight line to and from a
Advanced Flight Skills
Activity - Skill Five
Beginning Flight Skills: Flight Skills
Activity - Skill Four

MS_2025_235130_4.2.d
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly a straight line to a destination in a
Advanced Flight Skills
Activity - Skill Six
MS_2025_235130_4.2.e
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly left and right box patterns.
Advanced Flight Skills
Activity - Skill Six
MS_2025_235130_4.2.f
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly a figure-eight pattern in both a
Advanced Flight Skills
Activity - Skill Nine
MS_2025_235130_4.3
Multirotor Flight. Conduct basic flight patterns with an outdoor capable multirotor.
Basics of Flight: How Multicopters Fly
PowerPoint - Basics of Flight: How Multicopters Fly (All Slides)
Beginning Flight Skills: Flight Skills
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine

Mississippi Foundations of Unmanned Aircraft Systems

STANDARDS ALIGNMENT

&

SCOPE and SEQUENCE

Lesson Sequence	Lesson Title	Days of Teaching
1	Drone Theory & Aeronautical Basics: Drone Components	3
2	Electronic Speed Controllers: Introduction to ESCs	1
3	Flight Controllers: Sensors & Guidance Systems	2
4	Propellers: Propeller Safety & Balancing	2
5	Beginning Flight Skills: Flight Skills	4
6	Advanced Flight Skills	4
7	Basics of Flight: How Multicopters Fly	3
8	Reg & Op Rules: FAA Definitions Pertaining to Part 107	2
9	Regulations & the FAA: Commercial Drone Use	2
10	Pathway to Certification: Regulating Airspace	2
11	Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace	5
12	Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight	2
13	Reg & Op Rules: Documentation for Flight & Registration Requirements	3
14	Safety Considerations: Privacy Policies & Flight Procedures	2
15	Reg & Op Rules: Requirements for Flight	1
16	Reg & Op Rules: Hazardous Operations & Change of Address	1
17	Reg & Op Rules: Authorization & Operation	2
18	Airport Operations: Airport Traffic Patterns, Flight Frequencies & Best Practices	3
19	Maintenance & Inspection Procedures: Inspection	2
20	Aviation Weather, Effects & Sources: Thunderstorms, Visibility & Clouds	2
21	Pathway to Certification: A Closer Look at Part 107 Certification	2
22	Basics of Flight: Aerodynamics & History of Flight	2
23	Basics of Flight: Newton's Laws of Force & Motion	4
24	sUAS Loading & Performance: Center of Gravity & Endurance/Range	2
25	sUAS Loading & Performance: Load Factors & Angle of Attack	1
26	sUAS Loading & Performance: Weight/Balance & Performance Factors	1
27	Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane	2
28	Drone Theory & Aeronautical Basics: The Four Forces of Flight	1
29	Beginning Flight Skills: Controller Basics & Maneuvering Terminology	1
30	Airframes: Airframe Sizes & Materials	3
31	Airframes - Airframe Characteristics & the History of Helicopter Design	4
32	Airframes: Early Multirotor Aircraft Designs	2
33	Design & Documentation: Tool Options	4
34	Safety Considerations - Introduction to Safety	2
35	Batteries, Chargers & Connectors: LiPo Batteries	2
36	Efficiency vs. Performance: Efficiency in Various Drone Components	2
37	Efficiency vs. Performance	2
38	Electric Motors: Choosing a Motor	2
39	Propellers: Propeller Materials & Choosing Propellers	2
40	Airframes: Advancements & Multicopter Configurations	4
41	Design & Documentation: Engineering Design	3
42	Efficiency vs. Performance: Build or Buy	2
43	Cameras, Gimbals & Other Payloads: Payload Considerations & Camera Options	2

Lesson Sequence	Lesson Title	Days of Teaching
44	Flight Controllers: Introduction & How Flight Controllers Work	1
45	Pathway to Certification: Current Uses & Future Potential	1
46	Formulas for Career Success: Portfolio Development	5

* Days of Teaching identifies the number of days a lesson may take if all lesson plan items (i.e., activities, projects, handouts, etc.) are utilized as written by iCEV curriculum writers. Flexibility within the lesson plan allows instructor autonomy of implementation for each item.

Foundations of Unmanned Aircraft Systems

MS_2025_235125_4.1.a
describe the following parts for identification and preflight check purposes: Aircraft orientation markers, Battery system, Charging system, Chassis/frame, Electronic Speed Controller (ESC), Flight controller, Global Positioning
Drone Theory & Aeronautical Basics: Drone Components
PowerPoint - Drone Theory & Aeronautical Basics - Drone Components (Slides 8-42; 51)
Activity - Drone Components
Electronic Speed Controllers: Introduction to ESCs
PowerPoint - Electronic Speed Controllers (All Slides)
Activity - CQs Introduction to ESCs
Flight Controllers: Sensors & Guidance Systems
PowerPoint - Flight Controllers (Slides 23 -30)
Propellers: Propeller Safety & Balancing
PowerPoint - Propellers (All Slides)
Activity - CQs Propeller Safety and Balancing
MS_2025_235130_4.1.b
Multirotor Flight. Identify and describe parts of a multirotor drone and discuss how each part interacts. Discuss the
Drone Theory & Aeronautical Basics: Drone Components
PowerPoint - Drone Theory & Aeronautical Basics - Drone Components (All Slides)
Activity - Drone Components
MS_2025_235130_4.2.a
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Take off and hover for a set
Beginning Flight Skills: Flight Skills
Activity - Skill One
Activity - Skill Three
Activity - Skill Two
MS_2025_235130_4.2.b
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Land on a designated target.
Beginning Flight Skills: Flight Skills
Activity - Skill Two
MS_2025_235130_4.2.c
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly a straight line to and from a
Advanced Flight Skills
Activity - Skill Five
Beginning Flight Skills: Flight Skills
Activity - Skill Four
MS_2025_235130_4.2.d
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly a straight line to a
Advanced Flight Skills
Activity - Skill Six
MS_2025_235130_4.2.e
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly left and right box patterns.
Advanced Flight Skills
Activity - Skill Six

MS_2025_235130_4.2.f
Multirotor Flight. Demonstrate manual indoor entry-level multirotor flight practice. Fly a figure-eight pattern in both
Advanced Flight Skills
Activity - Skill Nine
MS_2025_235130_4.3
Multirotor Flight. Conduct basic flight patterns with an outdoor capable multirotor.
Basics of Flight: How Multicopters Fly
PowerPoint - Basics of Flight: How Multicopters Fly (All Slides)
Beginning Flight Skills: Flight Skills
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine
MS_2025_235125_5.1.a
Introduction to FAA. Part 107 Discuss the purpose of Federal Aviation Administration (FAA) Part 107. Describe the
Reg & Op Rules: FAA Definitions Pertaining to Part 107
PowerPoint- Reg & Op Rules: FAA Definitions Pertaining to Part 107 (Slides 3-10; 20-22; 25-40)
Activity - Comprehension Questions: FAA Definitions Pertaining to Part 107
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (Slides 24 -33)
MS_2025_235125_5.1.b
Introduction to FAA Part 107. Discuss the purpose of Federal Aviation Administration (FAA) Part 107. Explain why the
Pathway to Certification: Regulating Airspace
PowerPoint - Pathway to Certification - Regulating Airspace (Slides Slides 3-23; 29-41)
Activity - Comprehension Questions - Regulating Airspace
MS_2025_235125_5.2.a
associated with the operation of sUAS. Air traffic Air traffic control, Airport authority, Airport control tower, Airspace, Carriage, Categories 1 - 4, Chartered club (i.e., Academy of Model Aeronautics [AMA], etc.,) Civil aircraft, Civil twilight, Class A airspace, Class B airspace, Class C airspace, Class D airspace, Class E airspace, Class G airspace, Commercial aircraf,t FAA–Recognized Identification Areas (FRIAs), Hazardous materia,l Knots, Nautical mile,
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace
PowerPoint - Airspace Classifications & Operating Requirements Aeronautical Charts & Classes (Slides 8-54)
Activity - Airspace Classifications
Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight
PowerPoint - Regulations & Operating Rules - Daylight Operation Regulations (Slides 6-9, 13-18)
Activity - Comprehension Questions: Daylight Operation Regulations & Visual-Line-of-Sight
Reg & Op Rules: Documentation for Flight & Registration Requirements
PowerPoint - Regulations & Operating Rules - Documentation for Flight (Slides 32-43)
Student Handout - What is a FRIA
Safety Considerations: Privacy Policies & Flight Procedures
PowerPoint - Safety Considerations - Privacy Policies & Flight Procedures (Slides 17 -19, 25 -30)
Activity - Comprehension Questions: Policies & Flight Procedures

MS_2025_235125_5.2.b
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. Describe the
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (Slide 15)
MS_2025_235125_5.2.c
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. List prohibitions for operating sUAS: Operation from a moving vehicle or aircraft; Alcohol or drugs; Beyond visual line-of-sight (BVLOS);
Reg & Op Rules: Requirements for Flight
PowerPoint - Regulations & Operating Rules - Requirements for Flight (Slides 14-15)
Student Handout - Risk Categories
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (All Slides)
Reg & Op Rules: Hazardous Operations & Change of Address
PowerPoint - Reg & Op Rules: Hazardous Operations & Change of Address (All Slides)
MS_2025_235125_5.2.d
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. Discuss the rules for operating unmanned aircraft in the vicinity of an airport: Prohibited in flying in Class B, C, D, or E airspace without flight authorization (i.e., Low Altitude Authorization and Notification Capability [LAANC], etc.); Advisement of airport
Reg & Op Rules: Authorization & Operation
PowerPoint - Regulations & Operating Rules - Authorization (All Slides)
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (Slide 15)
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace
PowerPoint - Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace (All Slides)
Activity - Airspace Classifications
Airport Operations: Airport Traffic Patterns, Flight Frequencies & Best Practices
PowerPoint - Airport Operations: Airport Traffic Patterns, Flight Frequencies & Best Practices (All Slides)
MS_2025_235125_5.2.e
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. Explain the
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (All Slides)
Activity - CQs Inspection
Student Handout - Sample Questions Test Bank
MS_2025_235125_5.2.f
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. Describe weather and
Aviation Weather, Effects & Sources: Thunderstorms, Visibility & Clouds
PowerPoint - Aviation Weather, Effects & Sources - Thunderstorms, Visibility & Clouds (Slides 18 -25)
Student Handout - Sample Questions Test Bank
Reg & Op Rules: Requirements for Flight
PowerPoint - Regulations & Operating Rules - Requirements for Flight (Slide 3)
MS_2025_235125_5.2.g
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. Describe any other
Reg & Op Rules: Hazardous Operations & Change of Address
PowerPoint - Reg & Op Rules: Hazardous Operations & Change of Address (All Slides)
Reg & Op Rules: Requirements for Flight
PowerPoint - Regulations & Operating Rules - Requirements for Flight (Slides 10-11)
Regulations & the FAA: Commercial Drone Use
PowerPoint - Regulations & the FAA (Slides 17-19)

MS_2025_235125_5.2.h
Introduction to FAA Part 107. Explain the operating rules for small unmanned aircraft systems. Explain the need for sUAS remote pilot certification. Who should obtain FAA Part 107 Remote Pilot Certificate? Responsibilities of a
Pathway to Certification: A Closer Look at Part 107 Certification
PowerPoint - Pathway to Certification - A Closer Look at Part 107 Certification (Slides 3 -17)
MS_2025_235125_6.1.a
Flight Theory. Develop and apply an understanding of the concepts involved in aerodynamics, flight control, and aircraft propulsion. Define terms associated with flight theory: Aerodynamics, Airspeed, Altitude, Angle of attack,
Basics of Flight: Aerodynamics & History of Flight
PowerPoint - Basics of Flight - Aerodynamics & History of Flight (Slides 3-5)
Activity - Comprehension Questions - Aerodynamics & History of Flight
Basics of Flight: Newton's Laws of Force & Motion
PowerPoint - Basics of Flight - Newton's Law of Force & Motion (Slides 18 -25)
Activity-Comprehension Questions-Newton's Law of Force & Motion
sUAS Loading & Performance: Center of Gravity & Endurance/Range
PowerPoint - sUAS Loading & Performance (Slide 3)
sUAS Loading & Performance: Load Factors & Angle of Attack
PowerPoint - sUAS Loading & Performance (Slides 13 -16, 21)
sUAS Loading & Performance: Weight/Balance & Performance Factors
PowerPoint - sUAS Loading & Performance (Slide 10)
MS_2025_235125_6.1.b
Flight Theory. Develop and apply an understanding of the concepts involved in aerodynamics, flight control, and aircraft propulsion. Explain phenomena in terms of principles of aerodynamics and flight control: Aerodynamic
Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basics of Flight - Four Forces of Flight & Mechanical Design of an Airplane (Slides 3 -12)
Activity - Comprehension Questions - Four Forces of Flight & Mechanical Design of an Airplane
Basics of Flight: Newton's Laws of Force & Motion
PowerPoint - Basics of Flight - Newton's Law of Force & Motion (Slides 18 -21)
MS_2025_235125_6.1.c
aircraft propulsion. Cite examples and provide diagrams to explain how the location of the center of gravity affects flight stability.
sUAS Loading & Performance: Center of Gravity & Endurance/Range
PowerPoint - sUAS Loading & Performance (Slides 3-5)
MS_2025_235125_6.2.a
Flight Theory. Explain the influences on the four forces of flight. Describe how wing type and design influence lift
Basics of Flight: Newton's Laws of Force & Motion
PowerPoint - Basics of Flight - Newton's Law of Force & Motion (Slides 22-26)
Activity - Comprehension Questions - Newton's Laws of Force & Motion
MS_2025_235125_6.2.b
Flight Theory. Explain the influences on the four forces of flight. Demonstrate how the weight of an unmanned aerial
sUAS Loading & Performance: Weight/Balance & Performance Factors
PowerPoint - sUAS Loading & Performance (Slides 18-19)
MS_2025_235125_6.2.c
Flight Theory. Explain the influences on the four forces of flight. Describe how the stability and safety of a UAV is
Basics of Flight: How Multicopters Fly
PowerPoint - Basics of Flight - How Multicopters Fly (Slides 3 -10)

MS_2025_235125_6.2.d
Flight Theory. Explain the influences on the four forces of flight. Demonstrate how the drag of a UAV affects
Drone Theory & Aeronautical Basics: The Four Forces of Flight
PowerPoint - Drone Theory & Aeronautical Basics - Four Forces of Flight (Slide 12)
MS_2025_235125_6.3.a
Flight Theory. Demonstrate the use of flight controls to maintain aircraft stability and flight operation. Describe and
Beginning Flight Skills: Controller Basics & Maneuvering Terminology
PowerPoint - Beginning Flight Skills - Controller Basics (Slides 3-10, 12)
MS_2025_235125_6.3.b
Flight Theory Demonstrate the use of flight controls to maintain aircraft stability and flight operation. Identify
Beginning Flight Skills: Controller Basics & Maneuvering Terminology
PowerPoint - Beginning Flight Skills - Controller Basics (Slides 3-10)
MS_2025_235125_6.3.c
Flight Theory. Demonstrate the use of flight controls to maintain aircraft stability and flight operation. Describe the
Airframes: Airframe Sizes & Materials
PowerPoint - Airframes - Airframes Sizes and Materials (All Slides)
Activity - Comprehension Questions: Airframe Sizes & Materials
MS_2025_235125_6.3.d
Flight Theory. Demonstrate the use of flight controls to maintain aircraft stability and flight operation. Discuss the
Drone Theory & Aeronautical Basics: Drone Components
PowerPoint - Drone Theory & Aeronautical Basics: Drone Components (All Slides)
Activity - Drone Components
MS_2025_235125_6.4
Flight Theory Analyze multiple real-world examples that demonstrate the concepts of the four forces of flight (i.e.,
Airframes - Airframe Characteristics & the History of Helicopter Design
PowerPoint - Airframes - Airframe Characteristics and The History of Helicopter Designs (Slides 10-29)
Airframes: Advancements & Multicopter Configurations
PowerPoint - Airframes - Advancement and Multicopter Configurations (Slides 3-7)
Airframes: Early Multirotor Aircraft Designs
PowerPoint - Airframes - Early Multirotor Aircraft Designs (Slides 3-9)
MS_2025_235125_7.1.a
UAS Components, Construction, and Flight. Demonstrate the safe use of tools needed to construct a small,
Design & Documentation: Tool Options
PowerPoint - Design & Documentation - Tool Options (Slides 10-12)
Safety Considerations - Introduction to Safety
PowerPoint - Safety Considerations - Introduction to Safety (Slide 11)
MS_2025_235125_7.1.b
UAS Components, Construction, and Flight. Demonstrate the safe use of tools needed to construct a small,
Safety Considerations - Introduction to Safety
PowerPoint - Safety Considerations - Introduction to Safety (All Slides)
Activity - Comprehension Questions: Introduction to Safety
Activity - Safety Scenario

MS_2025_235125_7.2.b
UAS Components, Construction, and Flight. Discuss basic flight theory and physical science as it applies to sUAS operation. Determine motor and electrical system requirements, including battery, propeller selection, and
Batteries, Chargers & Connectors: LiPo Batteries
PowerPoint - Batteries, Chargers & Connectors (All Slides)
Efficiency vs. Performance: Efficiency in Various Drone Components
PowerPoint - Efficiency vs. Performance (Slides 3 -13)
Activity - CQs Efficiency in Various Drone Components
Electric Motors: Choosing a Motor
PowerPoint - Electric Motors - Choosing a Motor (Slides 3-5; 13-24)
Activity - Comprehension Questions: Choosing a Motor
Propellers: Propeller Materials & Choosing Propellers
PowerPoint - Propellers (Slides 3 -38)
Activity - CQs Propeller Materials and Choosing Propellers
MS_2025_235125_7.3.a
UAS Components, Construction, and Flight. Assemble an sUAS under 60 grams (i.e., Tiny Whoop, etc.). Develop a
Airframes: Advancements & Multicopter Configurations
Project - Team Design Challenge: Distributed Flight Array
Design & Documentation: Engineering Design
PowerPoint - Design & Documentation - Engineering Design (All Slides)
Efficiency vs. Performance
PowerPoint - Efficiency vs. Performance (All Slides)
Activity - Efficiency or Performance and Configuration Suggestions
Efficiency vs. Performance: Build or Buy
Activity - Unit Application
MS_2025_235125_7.3.b
UAS Components, Construction, and Flight. Assemble an sUAS under 60 grams (i.e., Tiny Whoop, etc.). Select the appropriate frame and components, including propellers, motor, flight controllers, and live view camera systems.
Airframes: Advancements & Multicopter Configurations
PowerPoint - Airframes - Advancement and Multicopter Configurations (Slides 17-28)
Project - Team Design Challenge: Distributed Flight Array
Cameras, Gimbals & Other Payloads: Payload Considerations & Camera Options
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 12 -38)
Activity - CQs Payload Consideration and Camera Options
Efficiency vs. Performance: Efficiency in Various Drone Components
PowerPoint - Efficiency vs. Performance (All Slides)
Activity - CQs Efficiency in Various Drone Components
Electric Motors: Choosing a Motor
PowerPoint - Electric Motors - Choosing a Motor (All Slides)
Activity - Comprehension Questions: Choosing a Motor
Flight Controllers: Introduction & How Flight Controllers Work
PowerPoint - Flight Controllers (Slides 3 -9)
MS_2025_235125_7.3.c
principles of the scientific method to build and test the operation of the multirotor and flight controller. Install the selected flight controller. Program the flight controller and transmitter. Flight tune the multirotor. Integrate, connect, and test the live view camera system, including the monitor. Check the power system, battery, and charger
Airframes: Advancements & Multicopter Configurations
Project - Team Design Challenge: Distributed Flight Array

MS_2025_235125_8.1.a
Career Exploration and Preparation. Investigate the use and application of unmanned aircraft system (UAS) technology in various industries. Research and describe how UAS technology is used in the public and private sector.
Pathway to Certification: Current Uses & Future Potential
PowerPoint - Pathway to Certification - Current Uses & Future Potential (All Sllides)
Activity - Local Testing & Job Possibilities
MS_2025_235125_8.1.b
Career Exploration and Preparation. Investigate the use and application of unmanned aircraft system (UAS)
Pathway to Certification: Current Uses & Future Potential
PowerPoint - Pathway to Certification - Current Uses & Future Potential (All Sllides)
Activity - Local Testing & Job Possibilities
MS_2025_235125_8.2.a
students' future careers and educational opportunities. Create and maintain a portfolio, preferably electronic, consisting of at least the following elements: Certifications, Documented work, flight experience and flight hours,
Formulas for Career Success: Portfolio Development
Video #1: Portfolio Development: Contents (3:32 - end)
Video #2: Portfolio Development: Design & Organization (All)
Activity - Choosing Artifacts
Activity - Creating Artifacts
Project - Digital Portfolio
Project - Portfolio Development
MS_2025_235125_8.2.b
students' future careers and educational opportunities. Discuss why documentation of hours, experience, and professional work is important for the students' success.
Formulas for Career Success: Portfolio Development
Video #1 Portfolio Development: Contents (Start - 3:32)
MS_2025_235125_8.2.c
students' future careers and educational opportunities. Discuss how to maintain and use this portfolio as this UAS program continues and as future career or educational opportunities arise.
Formulas for Career Success: Portfolio Development
Video #2: Portfolio Development: Design & Organization (Start: 8:45- End: 8:57)

Mississippi Applications of Unmanned Aircraft Systems

STANDARDS
ALIGNMENT
&
SCOPE and SEQUENCE

Lesson Sequence	Lesson Title	Days of Teaching
1	Pathway to Certification: A Closer Look at Part 107 Certification	2
2	Reg & Op Rules: Authorization & Operation	2
3	Reg & Op Rules: Eligibility for Part 107 Certification	1
4	Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace	5
5	Airspace Classifications & Operating Requirements: Airspace Designations	2
6	Airport Operations: Longitude/Latitude & NM/SM	1
7	Airport Operations: Tall Obstacles & AGL vs. MSL	2
8	Airport Operations: VFR Sectional Chart Symbols	2
9	Radio Communications: Proper Radio Procedures	2
10	Crew Resource Management: Decision-Making, CRM Effectiveness & Hazardous Attitude	2
11	Aviation Weather, Effects & Sources: METARs & TAFs	2
12	Aviation Weather, Effects & Sources: The Knowledge Test & Weather Factors	1
13	Aviation Weather, Effects & Sources: Thunderstorms, Visibility & Clouds	2
14	Aviation Weather, Effects & Sources: Weather & Time Zones	2
15	Aviation Weather, Effects & Sources: Weather Briefs & Stable vs. Unstable Air	2
16	Aviation Weather, Effects & Sources: Wind, Friction, Masses, Fronts & Wthr Forms	2
17	Maintenance & Battery Care: Logging Flights	1
18	Crew Resource Management: Contingency Reactions	1
19	Emergency Flight Procedures: Lost Link & Fly-Away Procedures	2
20	Emergency Flight Procedures: Battery Fire Procedures & Accidents	2
21	Crew Resource Management: Physiological & Medical Factors	2
22	Maintenance & Inspection Procedures: Inspection	2
23	Maintenance & Inspection Procedures: Maintenance	2
24	Reg & Op Rules: On The Move & Privacy Considerations	2
25	Reg & Op Rules: Requirements for Flight	1
26	Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight	2
27	Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping	3
28	Cameras, Gimbals & Other Payloads: Exp Settings, Video Frame Rates & Saving Files	4
29	Photography for Designers	5
30	Cameras, Gimbals & Other Payloads: Gimbals & Lenses	3
31	Cameras, Gimbals & Other Payloads: Resolution, Sensors, Media & Quality Effects	3
32	Ground Control Stations & FPV: GCS Overview & Telemetry	2
33	Flight Controllers: Autonomous Flight & Geo-Fencing	2
34	Ground Control Stations & FPV: Data Tracking	2
35	Maps & Surveys	6
36	Geographic Information Systems (GIS) & Global Positioning Systems (GPS)	6
37	Crew Resource Management: Physiological & Medical Factors	2
38	Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping	3
39	sUAS Loading & Performance: Stability, Payload, Speeds & Altitude	1
40	Flight Controllers: Sensors & Guidance Systems	2

* Days of Teaching identifies the number of days a lesson may take if all lesson plan items (i.e., activities, projects, handouts, etc.) are utilized as written by iCEV curriculum writers. Flexibility within the lesson plan allows instructor autonomy of implementation for each item.

Applications of Unmanned Aircraft Systems

MS_2025_235120_9.1.a
107 category. Identify and analyze FAA regulations and procedures for small, unmanned aircraft system (sUAS) operations (i.e., limitations, registration, remote pilot certificate sUAS–rating privileges, waiver requirements, etc.).
Pathway to Certification: A Closer Look at Part 107 Certification
PowerPoint - Pathway to Certification - A Closer Look at Part 107 Certification (Slides 3-8, 12-13; 16-20)
Student Handout - Risk Categories
Reg & Op Rules: Authorization & Operation
PowerPoint - Regulations & Operating Rules - Authorization (All Slides)
Student Handout - Sample Questions Test Bank
Reg & Op Rules: Eligibility for Part 107 Certification
PowerPoint - Regulations & Operating Rules - Eligibility for Part 107 Certification (All Slides)
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.1.b
107 category. Classify and differentiate among categories, classes, and types of airspace in the National Airspace System (NAS).
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace - NEW ITEM
PowerPoint - Airspace Classifications & Operating Requirements Aeronautical Charts & Classes (All Slides)
Activity - Special Use Airspace
Airspace Classifications & Operating Requirements: Airspace Designations
PowerPoint-Airspace Classification & Operating Requirement: Airspaces Designations (Slides 3-11)
MS_2025_235120_9.1.c
107 category. Demonstrate knowledge and best practices of navigation. Calculate and connect the concepts of distance, speed, and headings. Differentiate among and analyze critical elements of charts and maps.
Airport Operations: Longitude/Latitude & NM/SM
PowerPoint - Airport Operations (All Slides)
Student Handout - Sample Questions Test Bank
Airport Operations: Tall Obstacles & AGL vs. MSL
PowerPoint - Airport Operations (All Slides)
Student Handout - Sample Questions Test Bank
Airport Operations: VFR Sectional Chart Symbols
PowerPoint - Airport Operations (All Slides)
Student Handout - Sample Questions Test Bank
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace -NEW ITEM
PowerPoint - Airspace Classifications & Operating Requirements Aeronautical Charts & Classes (Slides 3-7 ,15 -19, 26 -29,
MS_2025_235120_9.1.d
FAA Part 107 Integration. Investigate and apply the concepts found within each Federal Aviation Administration (FAA) Part 107 category. Investigate and explain the need for airport and off-airport operations and communication protocols.
Radio Communications: Proper Radio Procedures
PowerPoint - Radio Communications (Slides 3-6)

MS_2025_235120_9.1.e
FAA Part 107 Integration. Investigate and apply the concepts found within each Federal Aviation Administration (FAA) Part 107 category. Discuss the importance of concepts related to aeronautical decision making and judgement (i.e., problem
Crew Resource Management: Decision-Making, CRM Effectiveness & Hazardous Attitude
PowerPoint - Crew Resource Management (All Slides)
Activity - CQs Decision-Making, CRM and Hazardous Attitudes
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.1.f
107 category. Recognize and apply best practices regarding crew resource management and radio communication procedures.
Radio Communications: Proper Radio Procedures
PowerPoint - Radio Communications (Slides 7-38)
Activity - Airspace Classifications
MS_2025_235120_9.1.g
107 category. Discuss and analyze various weather conditions that affect sUAS operations. General weather theory (i.e., temperature, precipitation, visibility, cloud types, and wind conditions, etc.) Identify aviation weather information sources (i.e., automated weather observing systems (AWOS), automated surface observing systems (ASOS), etc.). Discuss the effects
Aviation Weather, Effects & Sources: METARs & TAFs
PowerPoint - Aviation Weather, Effects & Sources - METARs & TAFs (All Slides)
Activity - Comprehension Questions: METARs & TAFs
Student Handout - Sample Questions Test Bank
Aviation Weather, Effects & Sources: The Knowledge Test & Weather Factors
PowerPoint - Aviation Weather, Effects & Sources - The Knowledge Test & Weather Factors (All Slides)
Student Handout - Sample Questions Test Bank
Aviation Weather, Effects & Sources: Thunderstorms, Visibility & Clouds
PowerPoint - Aviation Weather, Effects & Sources - Thunderstorms, Visibility & Clouds (All Slides)
Activity - Comprehension Questions: Thunderstorms, Visibility & Clouds
Student Handout - Sample Questions Test Bank
Aviation Weather, Effects & Sources: Weather & Time Zones
PowerPoint - Aviation Weather, Effects & Sources - Weather & Time Zones (Slides 3-17)
Student Handout - Sample Questions Test Bank
Aviation Weather, Effects & Sources: Weather Briefs & Stable vs. Unstable Air
PowerPoint - Aviation Weather, Effects & Sources - Weather Briefs & Stable vs. Unstable Air (All Slides)
Activity - Comprehension Questions: Weather Briefs & Stable vs. Unstable Air
Student Handout - Sample Questions Test Bank
Aviation Weather, Effects & Sources: Wind, Friction, Masses, Fronts & Wthr Forms - NEW ITEM
PowerPoint - Aviation Weather, Effects & Sources - Wind, Friction, Masses, Fronts & Weather Forms (All Slides)
Activity - Comprehension Questions: Wind, Friction, Masses, Fronts, & Weather Formations
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.1.h
FAA Part 107 Integration. Investigate and apply the concepts found within each Federal Aviation Administration (FAA) Part
Maintenance & Battery Care: Logging Flights
PowerPoint - Maintenance and Battery Care - Logging Flights (Downloadable Version)
Activity - Comprehension Questions: Logging Flights

MS_2025_235120_9.1.i
FAA Part 107 Integration.Investigate and apply the concepts found within each Federal Aviation Administration (FAA) Part
Crew Resource Management: Contingency Reactions
PowerPoint - Crew Resource Management (All Slides)
Emergency Flight Procedures: Lost Link & Fly-Away Procedures
PowerPoint - Emergency Flight Procedures (All Slides)
Activity - CQs Lost Link and Fly Away Procedures
Student Handout - Sample Questions Test Bank
Emergency Flight Procedures: Battery Fire Procedures & Accidents
PowerPoint - Emergency Flight Procedures (All Slides)
Activity - CQs Battery Fire Procedures and Accidents
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.1.j
107 category. Identify and evaluate an understanding of human factors as they relate to sUAS. (i.e., fatigue, stress, and workload).
Crew Resource Management: Physiological & Medical Factors
PowerPoint - Crew Resource Management (Slies 8 -13)
Crew Resource Management: Decision-Making, CRM Effectiveness & Hazardous Attitude
PowerPoint - Crew Resource Management (Slides 16-26)
MS_2025_235120_9.1.k
FAA Part 107 Integration. Investigate and apply the concepts found within each Federal Aviation Administration (FAA) Part
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (All Slides)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
Maintenance & Inspection Procedures: Maintenance
PowerPoint - Maintenance & Inspection Procedures (All Slides)
Activity - CQs Maintenance
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.2.a
features and its proximity to airports or heliports using the appropriate application or tool (i.e., FAA's B4UFly application, etc.).
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace
PowerPoint - Airspace Classifications & Operating Requirements Aeronautical Charts & Classes (All Slides)
Activity - Airspace Classifications
Airspace Classifications & Operating Requirements: Airspace Designations
PowerPoint - Airspace Classifications & Operating Requirements - Airspace Designations (Slides 12-26)
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.2.b
FAA Part 107 Integration. Demonstrate proficiency in evaluating the airspace of the practice area. Contact required outside
Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace
PowerPoint - Airspace Classifications & Operating Requirements Aeronautical Charts & Classes (Slides 13-14, 28, 39, 46, 59,

MS_2025_235120_9.3.a
FAA Part 107 Integration, Demonstrate compliance and understanding of FAA flight regulations. During flight, demonstrate
Reg & Op Rules: On The Move & Privacy Considerations
PowerPoint - Regulations & Operating Rules - On the Move (Slides 16-25)
Student Handout - Sample Questions Test Bank
Reg & Op Rules: Requirements for Flight
PowerPoint - Regulations & Operating Rules - Requirements for Flight (All Slides)
Student Handout - Risk Categories
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.3.b
FAA Part 107 Integration. Demonstrate compliance and understanding of FAA flight regulations. In preparing for flight,
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (All Slides)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
MS_2025_235120_9.3.c
FAA Part 107 Integration. Demonstrate compliance and understanding of FAA flight regulations. Demonstrate an
Crew Resource Management: Contingency Reactions
PowerPoint - Crew Resource Management (All Slides)
Emergency Flight Procedures: Lost Link & Fly-Away Procedures
PowerPoint - Emergency Flight Procedures (All Slides)
Activity - CQs Lost Link and Fly Away Procedures
Student Handout - Sample Questions Test Bank
Emergency Flight Procedures: Battery Fire Procedures & Accidents
PowerPoint - Emergency Flight Procedures (All Slides)
Activity - CQs Battery Fire Procedures and Accidents
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.3.d
FAA Part 107 Integration. Demonstrate compliance and understanding of FAA flight regulations. Explain drug and alcohol
Crew Resource Management: Physiological & Medical Factors
PowerPoint - Crew Resource Management (Slides 19-30)
MS_2025_235120_9.3.e
FAA Part 107 Integration. Demonstrate compliance and understanding of FAA flight regulations. Review restrictions on
Reg & Op Rules: On The Move & Privacy Considerations
PowerPoint - Regulations & Operating Rules - On the Move (Slides 3-15)
Activity - Comprehension Questions: On the Move & Privacy Considerations
Student Handout - Sample Questions Test Bank
MS_2025_235120_9.3.f
FAA Part 107 Integration. Demonstrate compliance and understanding of FAA flight regulations. Review line-of-site
Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight - NEW ITEM
PowerPoint - Regulations & Operating Rules - Daylight Operation Regulations (Slides 13-21)
Student Handout - Sample Questions Test Bank
MS_2025_235120_10.1
Advanced Image Capture and Analysis. Explore and make observations regarding the various uses for capturing data with
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 16-30)
Activity - CQs Mission Planning and 3D Modeling Mapping
Activity - Unit Application

MS_2025_235120_10.2.a
Advanced Image Capture and Analysis. Demonstrate and critique flight techniques for capturing data. Identify and make
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 22-25)
MS_2025_235120_10.2.b
Advanced Image Capture and Analysis. Demonstrate and critique flight techniques for capturing data. Compare and
Cameras, Gimbals & Other Payloads: Exp Settings, Video Frame Rates & Saving Files
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 3-29)
Activity - Unit Application Exposure Settings
MS_2025_235120_10.3.a
Advanced Image Capture and Analysis Identify and analyze camera settings. Define saturation in terms of capturing
Photography for Designers
PowerPoint - Photography fo Designers (Slides 58-59)
MS_2025_235120_10.3.b
Advanced Image Capture and Analysis. Identify and analyze camera settings. Discuss and investigate the following camera settings: Aperture, Exposure, Field of view, Frames per second (fps), ISO sensitivity, Resolution, Shutter speed, White
Cameras, Gimbals & Other Payloads: Exp Settings, Video Frame Rates & Saving Files
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 3-29)
Activity - Unit Application Exposure Settings
Cameras, Gimbals & Other Payloads: Gimbals & Lenses
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 17 -19; 28-34)
Activity - CQs Gimbals and Lenses
Cameras, Gimbals & Other Payloads: Resolution, Sensors, Media & Quality Effects
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 3-7)
Photography for Designers
PowerPoint - Photography fo Designers (Slides 18-22; 28)
Student Handout - Camera Settings
MS_2025_235120_10.3.c
Advanced Image Capture and Analysis. Identify and analyze camera settings. Discuss and compare how various filters affect
Cameras, Gimbals & Other Payloads: Resolution, Sensors, Media & Quality Effects
PowerPoint - Cameras, Gimbals & Other Payloads (Slides -32-34; 39-42)
MS_2025_235120_10.4
Advanced Image Capture and Analysis. Discuss and apply concepts related to basic image analysis techniques using image
Cameras, Gimbals & Other Payloads: Exp Settings, Video Frame Rates & Saving Files
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 30-47)
Photography for Designers
PowerPoint - Photography for Designers (Slides 51-60)
Student Handout - Raster Software Application Basics
MS_2025_235120_11.1.a
unmanned aircraft system (UAS) missions. Define terms and explain concepts related to data processing software: 3D mode,l Cloud-based utilization, Commercial post-processing software, Continually operating reference station (CORS,) Data Management, Data processing, Digital surface model (DSM), Geographic information system (GIS), Global Positioning System (GPS), Ground control point (GCP), Normalized Difference Vegetation Index (NDVI), Oblique vs. nadir sensor angle,
Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
PowerPoint - Geographic Information Systems (GIS) & Global Positioning Systems (GPS) (Slides 5-9; 19-23)
Activity - GIS Notecards
Ground Control Stations & FPV: GCS Overview & Telemetry
PowerPoint - Ground Control Stations & FPV (Slides 3-13; 32)
Activity - CQs GCS Overview and Telemetry
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 19-20)

MS_2025_235120_11.1.b
Introduction to Sensors and Data Processing Systems. Explain basic data processing software and concepts as it applies to unmanned aircraft system (UAS) missions. Show how photogrammetry software can be used in UAS data collection.
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 21-25)
Activity - CQs Mission Planning and 3D Modeling Mapping
MS_2025_235120_11.2.a
Introduction to Sensors and Data Processing Systems. Explain the purpose and benefits of the GPS. Define terms associated
Flight Controllers: Autonomous Flight & Geo-Fencing
PowerPoint - Flight Controllers (Slides 9-11)
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slide 6)
MS_2025_235120_11.2.b
Introduction to Sensors and Data Processing Systems. Explain the purpose and benefits of the GPS. Describe the purpose of
Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
PowerPoint - Geographic Information Systems (GIS) & Global Positioning Systems (GPS) (Slides 24 -34)
Activity - Land, Sea & Air
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 4, 14-18)
MS_2025_235120_11.2.c
Introduction to Sensors and Data Processing Systems. Explain the purpose and benefits of the GPS. Discuss how satellites
Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
Student Handout - GPS System Operation
Ground Control Stations & FPV: Data Tracking
PowerPoint - Ground Control Stations & FPV (Slides 5-8)
Activity - CQs Data Tracking
MS_2025_235120_11.2.d
Introduction to Sensors and Data Processing Systems. Explain the purpose and benefits of the GPS. Demonstrate how to
Maps & Surveys
PowerPoint - Maps & Surveys (Slides 32-33, 56-63)
Activity -Topographic Map
Project - GIS, GPS, UAV
MS_2025_235120_11.2.e
Introduction to Sensors and Data Processing Systems. Explain the purpose and benefits of the GPS. Discuss the accuracy
Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
Student Handout - GPS System Operation
MS_2025_235120_11.2.f
Introduction to Sensors and Data Processing Systems. Explain the purpose and benefits of the GPS. Identify the GPS coordinates at your local flight field and other nearby locations using various applications, including Google Earth, ArcGIS
Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
Student Handout - ArcGIS Software
MS_2025_235120_11.3.a
Introduction to Sensors and Data Processing Systems. Analyze and discuss GIS tools and technologies. Identify practical
Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
PowerPoint - Geographic Information Systems (GIS) & Global Positioning Systems (GPS) (Slides 10 - 14)
Student Handout - Use of Geotechnologies

MS_2025_235120_11.3.b

Introduction to Sensors and Data Processing Systems. Analyze and discuss GIS tools and technologies. Explore map

Maps & Surveys

PowerPoint - Maps & Surveys (Slides 45 -47, 50-55, 66-76)

Activity - Legend & Grid

Activity - Topographic Map

Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping

PowerPoint - Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping (All Slides)

Activity - CQs Mission Planning and 3D Modeling Mapping

MS_2025_235120_11.3.c

Introduction to Sensors and Data Processing Systems. Analyze and discuss GIS tools and technologies. Apply online

Maps & Surveys

PowerPoint - Maps & Surveys (Slides 46-51)

Ground Control Stations & FPV: Data Tracking

PowerPoint - Ground Control Stations & FPV: Data Tracking (All Slides)

Activity - CQs Data Tracking

Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping

PowerPoint - Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping (All Slides)

Activity - CQs Mission Planning and 3D Modeling Mapping

MS_2025_235120_11.3.d

Introduction to Sensors and Data Processing Systems. Analyze and discuss GIS tools and technologies. Research, identify,

Maps & Surveys

PowerPoint - Maps & Surveys (Slides 52, 56-65)

Project - GIS, GPS, UAV

Ground Control Stations & FPV: GCS Overview & Telemetry

PowerPoint - Ground Control Stations & FPV: GCS Overview & Telemetry (Slides 7-32)

Activity - CQs GCS Overview and Telementry

Ground Control Stations & FPV: Data Tracking

PowerPoint - Ground Control Stations & FPV: Data Tracking (All Slides)

Activity - CQs Data Tracking

Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping

PowerPoint - Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping (All Slides)

Activity - CQs Mission Planning and 3D Modeling Mapping

MS_2025_235120_11.3.e

Introduction to Sensors and Data Processing Systems. Analyze and discuss GIS tools and technologies. Investigate and

Geographic Information Systems (GIS) & Global Positioning Systems (GPS)

Student Handout - Use of Geotechnologies

MS_2025_235120_11.3.f

information specific to the local area and be able to explain the benefit of that information (i.e., Mississippi Automated Resource Information System [MARIS], etc.)

MS_2025_235120_11.4.a

sensors used with UAS. Compare and contrast passive versus active remote sensing systems. Passive remote sensing systems: Electro-optical/infrared (EO/IR) - Red, green, blue (RGB) and infrared (IR) sensors for multiple band analysis, Hyperspectral Multispectral RGB cameras, Thermal Visible and near infrared light (VNIR). Active remote sensing systems:

Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping

PowerPoint - Ground Control Stations & FPV (Slides 19-28)

Activity - CQs Mission Planning and 3D Modeling Mapping

MS_2025_235120_12.1
Autonomous Multirotor Missions. Discuss and justify autonomous mission planning safety considerations.
Crew Resource Management: Contingency Reactions
PowerPoint - Crew Resource Management (All Slides)
Crew Resource Management: Physiological & Medical Factors - NEW ITEM
PowerPoint - Crew Resource Management (All Slides)
Activity - CQs Physiological and Medical Factors
Crew Resource Management: Decision-Making, CRM Effectiveness & Hazardous Attitude
PowerPoint - Crew Resource Management (All Slides)
Activity - CQs Decision-Making, CRM and Hazardous Attitudes
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping - NEW ITEM
PowerPoint - Ground Control Stations & FPV (Slides 12-13)
sUAS Loading & Performance: Stability, Payload, Speeds & Altitude -NEW ITEM
PowerPoint - sUAS Loading & Performance (Slides 3-9; 12-13)
MS_2025_235120_12.2.a
Autonomous Multirotor Missions. Demonstrate the use of ground station systems. Operate computer-based systems.
Ground Control Stations & FPV: GCS Overview & Telemetry
PowerPoint - Ground Control Stations & FPV (Slides 3-11)
MS_2025_235120_12.2.b
Autonomous Multirotor Missions. Demonstrate the use of ground station systems. Operate tablet-based systems.
Ground Control Stations & FPV: GCS Overview & Telemetry
PowerPoint - Ground Control Stations & FPV (Slides 3-11)
MS_2025_235120_12.3.a
Autonomous Multirotor Missions. Incorporate mission control computer software and related systems into a small,
Flight Controllers: Sensors & Guidance Systems
PowerPoint - Flight Controllers (All Slides)
Activity - CQs Sensors and Guidance Systems
MS_2025_235120_12.3.b
Autonomous Multirotor Missions. Incorporate mission control computer software and related systems into a small, unmanned aircraft system (sUAS) flight mission. Design a mission plan involving mission control software.
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 3-15)
Activity - CQs Mission Planning and 3D Modeling Mapping
MS_2025_235120_12.3.c
Autonomous Multirotor Missions. Incorporate mission control computer software and related systems into a small,
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (All Slides)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
MS_2025_235120_12.4.a
multirotor missions that tailor to the needs and desires of both the local industry and the surrounding community (i.e., survey grids, tower inspections, photography, videography, etc.).
Flight Controllers: Autonomous Flight & Geo-Fencing
PowerPoint - Flight Controllers (All Slides)
Activity - CQs Autonomous Flight and Geo-Fencing

Mississippi Advanced Unmanned Aircraft Systems

STANDARDS ALIGNMENT

&

SCOPE and SEQUENCE

Lesson Sequence	Lesson Title	Days of Teaching
1	Crew Resource Management: Contingency Reactions	1
2	Crew Resource Management: Physiological & Medical Factors	2
3	Crew Resource Management: Decision-Making, CRM Effectiveness & Hazardous Attitude	2
4	Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping	3
5	sUAS Loading & Performance: Stability, Payload, Speeds & Altitude	1
6	Ground Control Stations & FPV: GCS Overview & Telemetry	2
7	Flight Controllers: Sensors & Guidance Systems	2
8	Maintenance & Inspection Procedures: Inspection	2
9	Flight Controllers: Autonomous Flight & Geo-Fencing	2
10	Maintenance & Battery Care: The Commonality of Drones & Drone Maintenance	2
11	Transmitters & Receivers: Flight Modes, Receivers, Frequency Bands & Programming	4
12	Beginning Flight Skills: Flight Skills	4
13	Advanced Flight Skills	4
14	Basics of Flight: Four Forces of Flight & Mechanical Design of an Airplane	2
15	sUAS Loading & Performance: Load Factors & Angle of Attack	1
16	sUAS Loading & Performance: Weight/Balance & Performance Factors	1
17	sUAS Loading & Performance: Center of Gravity & Endurance/Range	2
18	Common Sense Flying: Determining the Purpose & Configuration Suggestions	1
19	Flight Controllers: Sense-&-Avoid, the Flight Purpose & Flight Controller Categories	2
20	Cameras, Gimbals & Other Payloads: Exp Settings, Video Frame Rates & Saving Flies	4
21	Formulas for Career Success: Portfolio Development	5

* Days of Teaching identifies the number of days a lesson may take if all lesson plan items (i.e., activities, projects, handouts, etc.) are utilized as written by iCEV curriculum writers. Flexibility within the lesson plan allows instructor autonomy of implementation for each item.

Advanced Unmanned Aircraft Systems

MS_2025_235115_12.1
Autonomous Multirotor Missions. Discuss and justify autonomous mission planning safety considerations.
Crew Resource Management: Contingency Reactions
PowerPoint - Crew Resource Management (All Slides)
Crew Resource Management: Physiological & Medical Factors
PowerPoint - Crew Resource Management (All Slides)
Activity - CQs Physiological and Medical Factors
Crew Resource Management: Decision-Making, CRM Effectiveness & Hazardous Attitude
PowerPoint - Crew Resource Management (All Slides)
Activity - CQs Decision-Making, CRM and Hazardous Attitudes
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 12-13)
sUAS Loading & Performance: Stability, Payload, Speeds & Altitude
PowerPoint - sUAS Loading & Performance (Slides 3-9; 12-13)
MS_2025_235115_12.2.a
Autonomous Multirotor Missions. Demonstrate the use of ground station systems. Operate computer-based systems.
Ground Control Stations & FPV: GCS Overview & Telemetry
PowerPoint - Ground Control Stations & FPV (Slies 3-11)
MS_2025_235115_12.2.b
Autonomous Multirotor Missions. Demonstrate the use of ground station systems. Operate tablet-based systems
Ground Control Stations & FPV: GCS Overview & Telemetry
PowerPoint - Ground Control Stations & FPV (Slides 3 -11)
MS_2025_235115_12.3.a
Autonomous Multirotor Missions. Incorporate mission control computer software and related systems into a small,
Flight Controllers: Sensors & Guidance Systems
PowerPoint - Flight Controllers (All Slides)
Activity - CQs Sensors and Guidance Systems
MS_2025_235115_12.3.b
Autonomous Multirotor Missions Incorporate mission control computer software and related systems into a small, unmanned aircraft system (sUAS) flight mission. Design a mission plan involving mission control software.
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 3-15)
Activity - CQs Mission Planning and 3D Modeling Mapping
MS_2025_235115_12.3.c
Autonomous Multirotor Missions. Incorporate mission control computer software and related systems into a small,
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (All Slides)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
MS_2025_235115_12.4.a
Autonomous Multirotor Missions. Perform multiple autonomous multirotor missions. Fly a variety of autonomous multirotor missions that tailor to the needs and desires of both the local industry and the surrounding community (i.e.,
Flight Controllers: Autonomous Flight & Geo-Fencing
PowerPoint - Flight Controllers (All Slides)
Activity - CQs Autonomous Flight and Geo-Fencing

MS_2025_235115_13.1.a
Fixed-Wing Flight. Complete the steps for a preflight and systems check of an aircraft to be flown. Check voltage of
Maintenance & Battery Care: The Commonality of Drones & Drone Maintenance
PowerPoint - Maintenance and Battery Care - The Commonality of Drones (Slides 28-29)
Activity - Comprehension Questions: The Commonality of Drones & Drone Maintenance
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (Slides 10-13)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
MS_2025_235115_13.1.b
Fixed-Wing Flight. Complete the steps for a preflight and systems check of an aircraft to be flown. Check flight
Maintenance & Battery Care: The Commonality of Drones & Drone Maintenance
PowerPoint - Maintenance and Battery Care - The Commonality of Drones (Slides 30-33)
Activity - Comprehension Questions: The Commonality of Drones & Drone Maintenance
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (Slides 9, 12)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
MS_2025_235115_13.1.c
Fixed-Wing Flight. Complete the steps for a preflight and systems check of an aircraft to be flown. Perform a range
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (Slide 11)
Activity - CQs Inspection
Transmitters & Receivers: Flight Modes, Receivers, Frequency Bands & Programming
PowerPoint - Transmitters & Receivers: Flight Modes, Receivers, Frequency Bands & Programming (Slides 6-10; 13-
MS_2025_235115_13.1.d
Fixed-Wing Flight Complete the steps for a preflight and systems check of an aircraft to be flown. Inspect the
Maintenance & Battery Care: The Commonality of Drones & Drone Maintenance
PowerPoint - Maintenance and Battery Care - The Commonality of Drones (Slides 24-28)
Activity - Comprehension Questions: The Commonality of Drones & Drone Maintenance
Maintenance & Inspection Procedures: Inspection
PowerPoint - Maintenance & Inspection Procedures (Slides 8, 15)
Activity - CQs Inspection
Student Handout Sample Questions Test Bank
MS_2025_235115_13.2.a
Fixed-Wing Flight. Demonstrate fixed-wing flight skills via simulation with the pilot at a fixed position. Taxi to takeoff
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine

MS_2025_235115_13.2.b
Fixed-Wing Flight. Demonstrate fixed-wing flight skills via simulation with the pilot at a fixed position. Take off.
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine
Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane (Slide 6)
MS_2025_235115_13.2.c
Fixed-Wing Flight. Demonstrate fixed-wing flight skills via simulation with the pilot at a fixed position. Climb to a
Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane (Slide 6)
MS_2025_235115_13.2.d
Fixed-Wing Flight. Demonstrate fixed-wing flight skills via simulation with the pilot at a fixed position. Perform left-
Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane (Slides 18-20)
MS_2025_235115_13.2.e
Fixed-Wing Flight. Demonstrate fixed-wing flight skills via simulation with the pilot at a fixed position. Perform landing
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine
Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane (Slide 6)

MS_2025_235115_13.3.f
Fixed-Wing Flight. Demonstrate fixed-wing flight skills via simulation with the pilot at a fixed position. Perform a
Beginning Flight Skills: Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill One
Activity - Skill Two
Activity - Skill Three
Activity - Skill Four
Advanced Flight Skills
PowerPoint - Beginning Flight Skills: Flight Skills (All Slides)
Activity - Skill Five
Activity - Skill Six
Activity - Skill Seven
Activity - Skill Eight
Activity - Skill Nine
Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane
PowerPoint - Basic of Flight: Four Forces of Flight & Mechanical Design of an Airplane (Slide 6)
sUAS Loading & Performance: Load Factors & Angle of Attack
PowerPoint - sUAS Loading & Performance (Slides 13-21)
MS_2025_235115_13.3.b
Fixed-Wing Flight. Formulate and construct an emergency procedures flow chart and plan for recovery from unusual attitudes (e.g., angle of attack, leaning, inverted, etc.). Apply appropriate control inputs to return the aircraft to level
sUAS Loading & Performance: Load Factors & Angle of Attack
PowerPoint - sUAS Loading & Performance (Slides 13-21)
MS_2025_235115_13.4.a
Fixed-Wing Flight. Assess flight dynamics based on vehicle loading. Calculate maximum takeoff weight (MTOW)
sUAS Loading & Performance: Stability, Payload, Speeds & Altitude
PowerPoint - sUAS Loading & Performance (Slides 10-11)
sUAS Loading & Performance: Weight/Balance & Performance Factors
PowerPoint - sUAS Loading & Performance (Slides 3-9, 11, 13-19)
Student Handout - Sample Questions Test Bank
MS_2025_235115_13.4.b
Fixed-Wing Flight. Assess flight dynamics based on vehicle loading. Weigh aircraft to ensure MTOW is not exceeded.
sUAS Loading & Performance: Weight/Balance & Performance Factors
PowerPoint - sUAS Loading & Performance (Slides 5-6)
Student Handout - Sample Questions Test Bank
MS_2025_235115_13.4.c
Fixed-Wing Flight. Assess flight dynamics based on vehicle loading. Determine if the aircraft is set up with the proper
sUAS Loading & Performance: Center of Gravity & Endurance/Range
PowerPoint - sUAS Loading & Performance (Slides 3-5)
Activity - CQs Center of Gravity & Endurance Range
sUAS Loading & Performance: Weight/Balance & Performance Factors
PowerPoint - sUAS Loading & Performance (Slides 10-12)
Student Handout - Sample Questions Test Bank

MS_2025_235115_14.1
UAS Capstone Project. Plan an instructor approved flight mission.
Common Sense Flying: Determining the Purpose & Configuration Suggestions
PowerPoint - Common Sense Flying - Determining the Purpose (All Slides)
Flight Controllers: Sense-&-Avoid, the Flight Purpose & Flight Controller Categories
PowerPoint - Flight Controllers (Slides 13-22)
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 3-15)
MS_2025_235115_14.2
UAS Capstone Project. Research, select, and integrate the appropriate sensor(s) and aircraft for the mission.
Flight Controllers: Sensors & Guidance Systems
PowerPoint - Flight Controllers (Slides 5-37)
Activity - CQs Sensors and Guidance Systems
MS_2025_235115_14.3
UAS Capstone Project. Perform and fully execute an instructor-approved mission type of your choice and then collect
Ground Control Stations & FPV: Mission Planning & 3D Modeling/Mapping
PowerPoint - Ground Control Stations & FPV (Slides 16-30)
MS_2025_235115_14.4
UAS Capstone Project. Process data into a deliverable package.
Cameras, Gimbals & Other Payloads: Exp Settings, Video Frame Rates & Saving Files
PowerPoint - Cameras, Gimbals & Other Payloads (Slides 30-47)
MS_2025_235115_14.5
UAS Capstone Project. Conduct a third-party review of the final report (i.e., unassociated school faculty member, local
Formulas for Career Success: Portfolio Development
Video #2: Portfolio Development: Design & Organization (7:59 -8:35)
MS_2025_235115_14.6
UAS Capstone Project. Completion of digital portfolio.
Formulas for Career Success: Portfolio Development
Video #1: Portfolio Development: Contents (All)
Video #2: Portfolio Development: Design & Organization (6:10-8:00)
Activity-Choosing Artifacts
Activity-Creating Artifacts
Project - Digital Portfolio

Features & Benefits

iCEV

Learning for ANY Environment
Support for ALL Teachers

Meet CTE standards and set your students up for success with iCEV. Our comprehensive CTE curriculum system provides educators with everything you need to focus on what matters– program growth and student success.

Technology Evolves, So Do We

- LMS & SSO Integrations
- Constantly Evolving Platform
- Interactive, Automatically Graded Coursework

Versatile Learning Models

- Face-to-face
- Distance
- Hybrid

Resources for Diverse Learners

- Special Populations Strategies
- Social-Emotional Learning Strategies
- Accommodations, Modifications, Extensions & Differentiation

Standards-Aligned Curriculum

- Aligned to State & National Standards
- Scope & Sequence Outlines
- Pacing Guides

Support for All Teachers

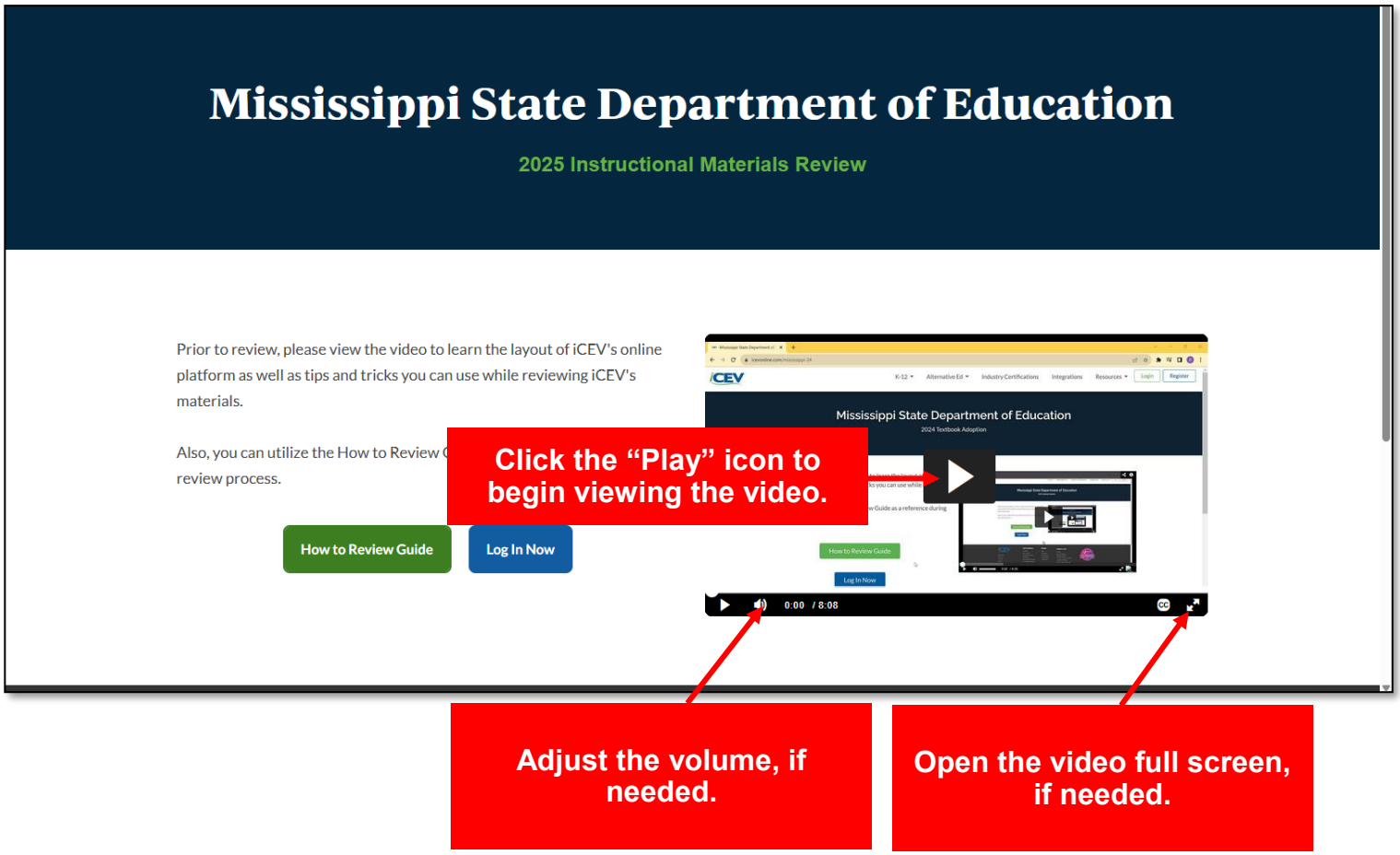
- On-Demand, Live Chat
- Professional Development & Training
- Monthly Webinars

Mississippi
State Department of Education
2025 Instructional Materials Review

HOW TO REVIEW

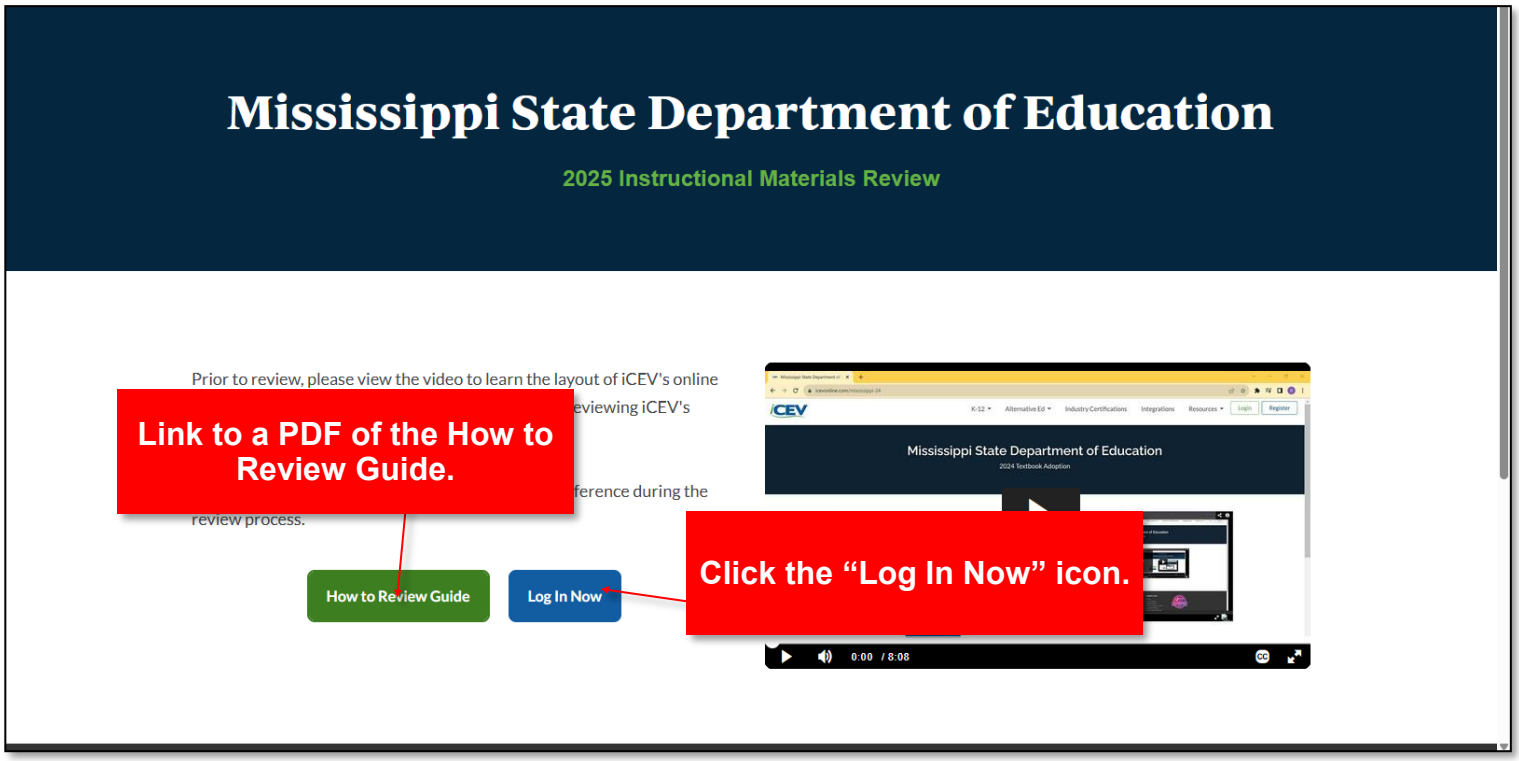
www.icevonline.com/mississippi-25

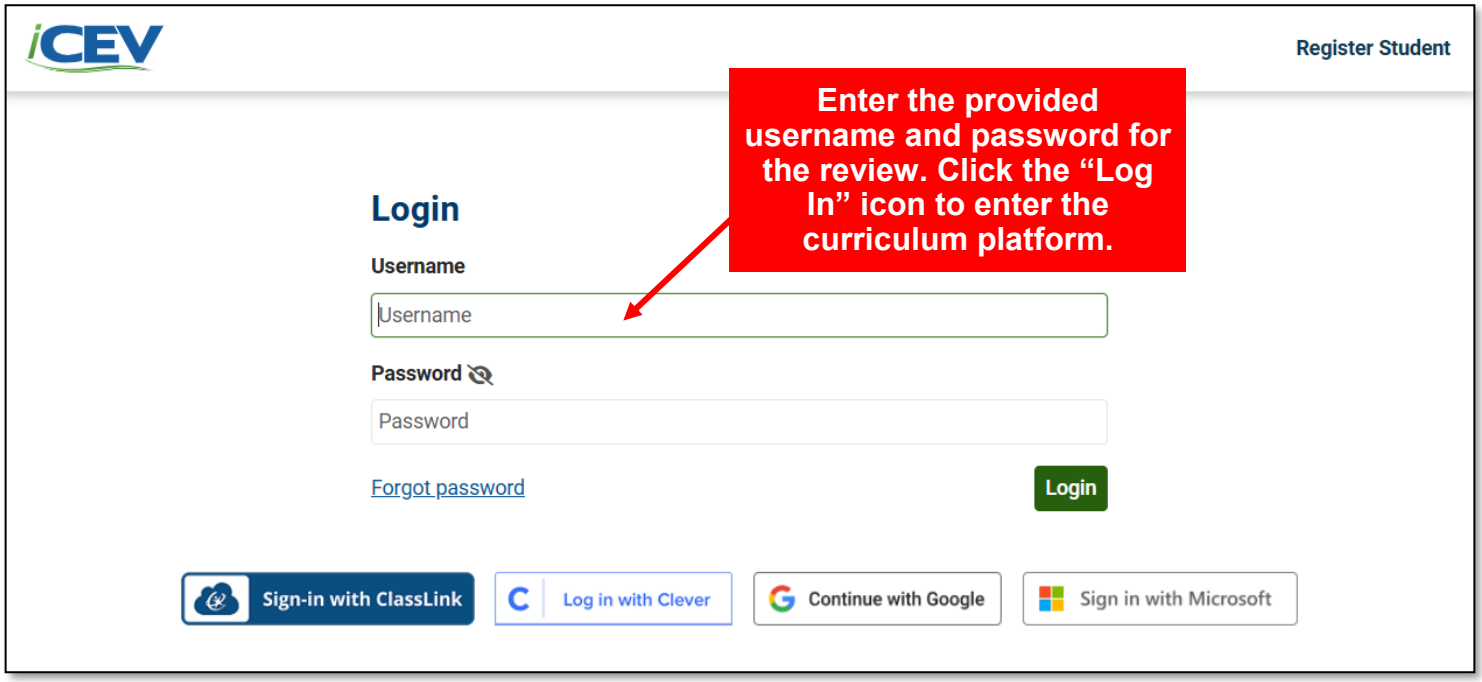
Step 1: View the video to learn the layout of the iCEV online curriculum platform and review tips.



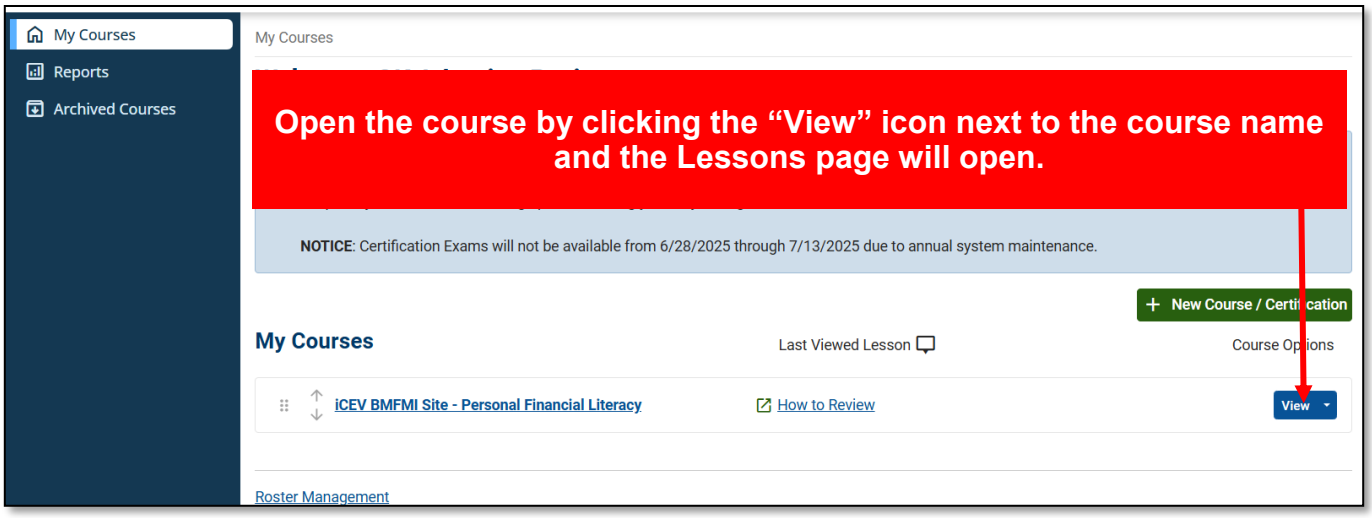
PLEASE NOTE: The video provides an overview of the layout of the iCEV online curriculum platform as well as explains how to review the various curriculum components.

Step 2: Log in to the iCEV online curriculum platform using the issued reviewer username and password.

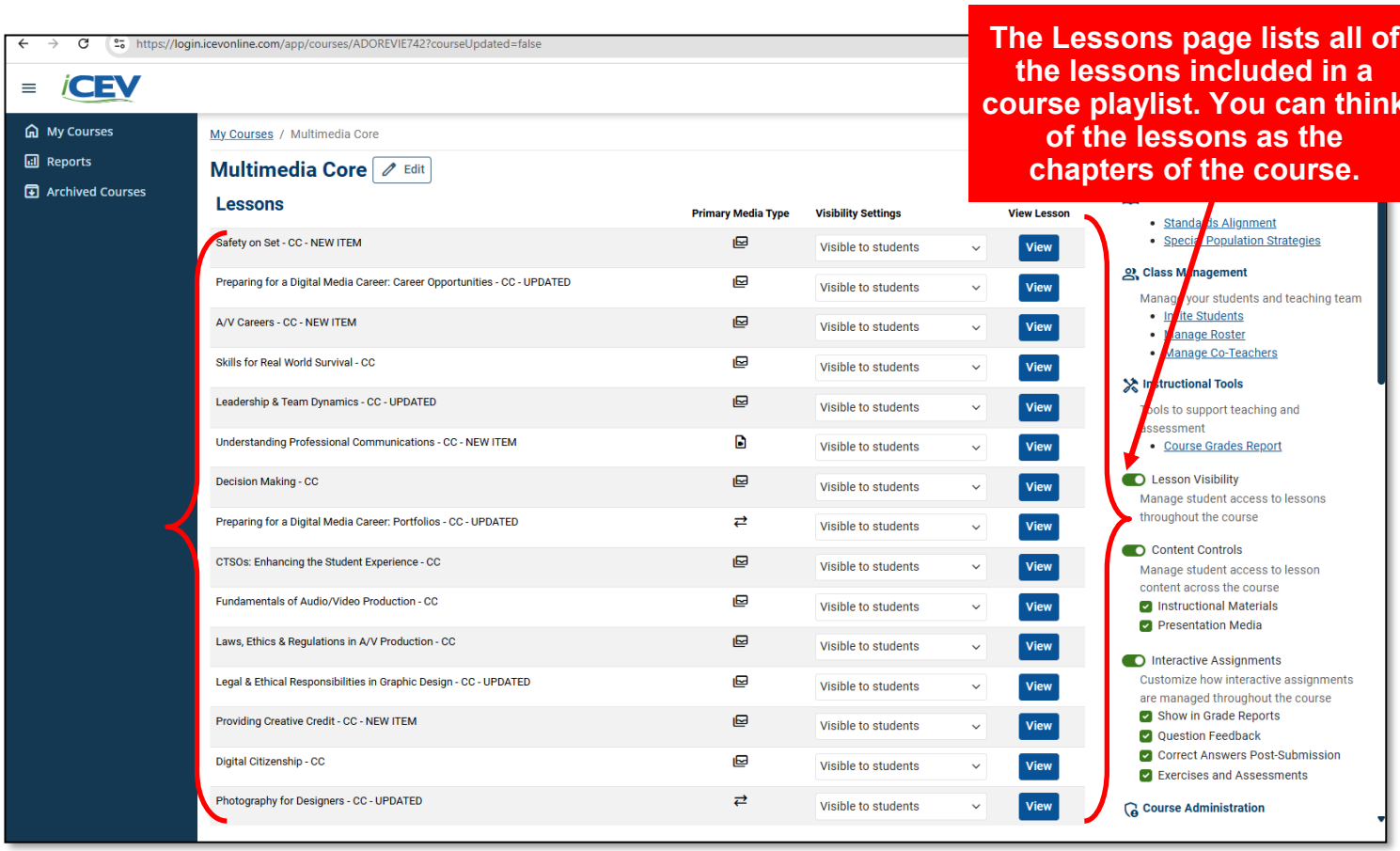




Step 3: On the My Courses page, choose the course to review and open the Lessons page.

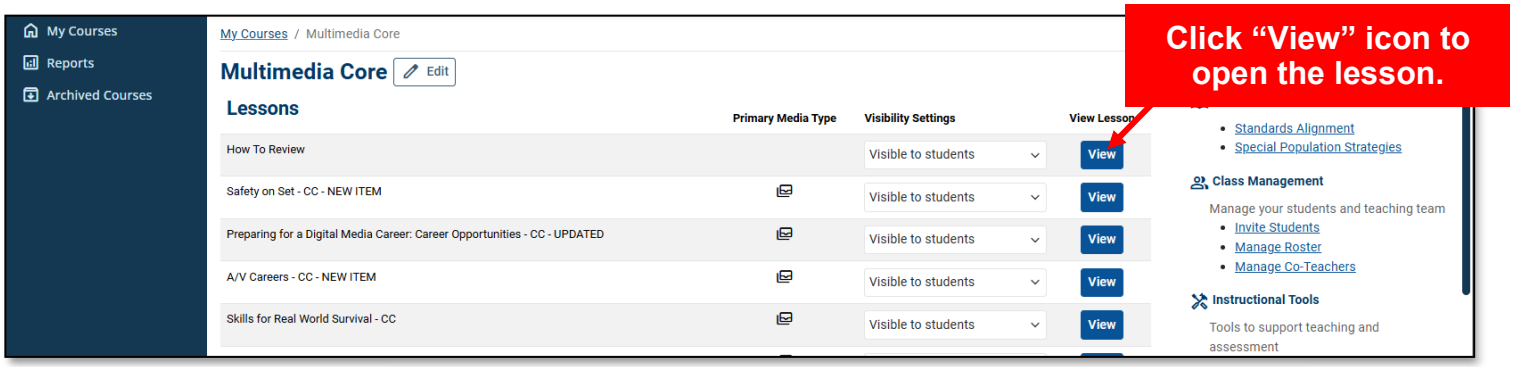


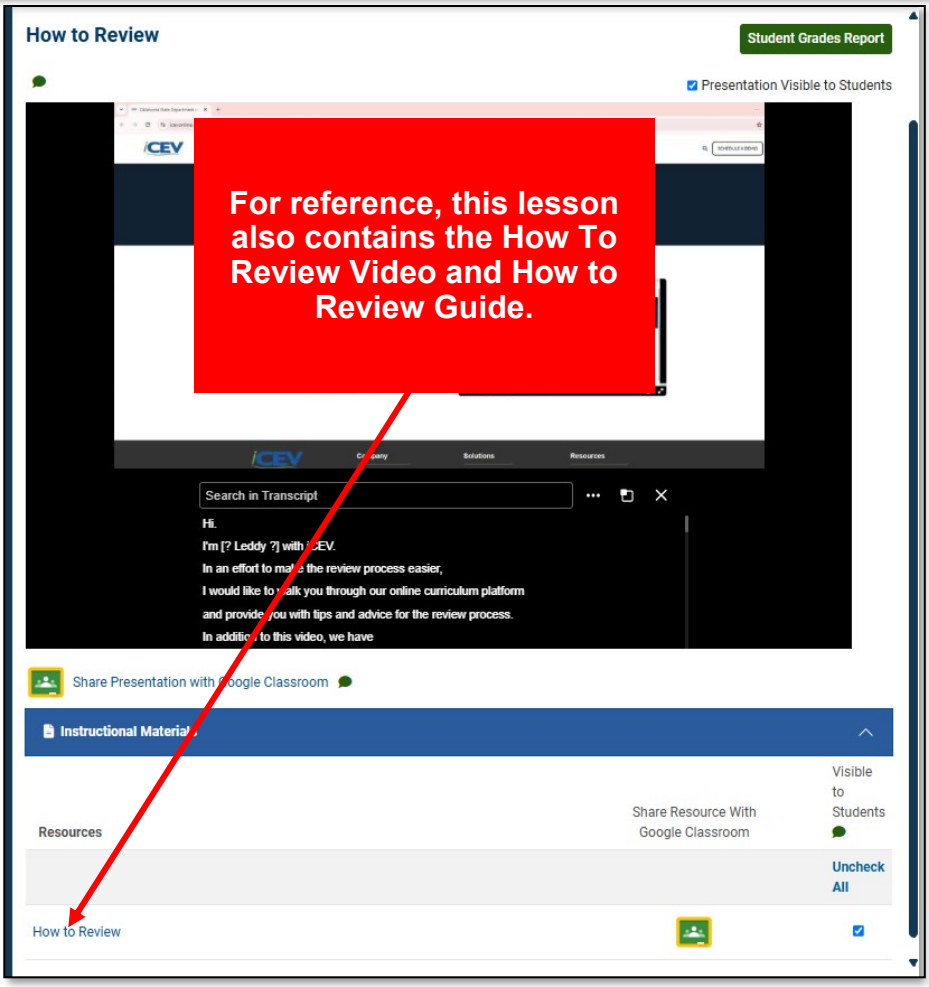
PLEASE NOTE: The courses which appear is based upon the username and password you enter. So only the course or courses iCEV has bid for the subject area being reviewed will be listed.



REVIEW TIP:
HOW TO REVIEW LESSON

For your convenience, a lesson containing the “How to Review” video and “How to Review” PDF guide are listed first in each playlist.

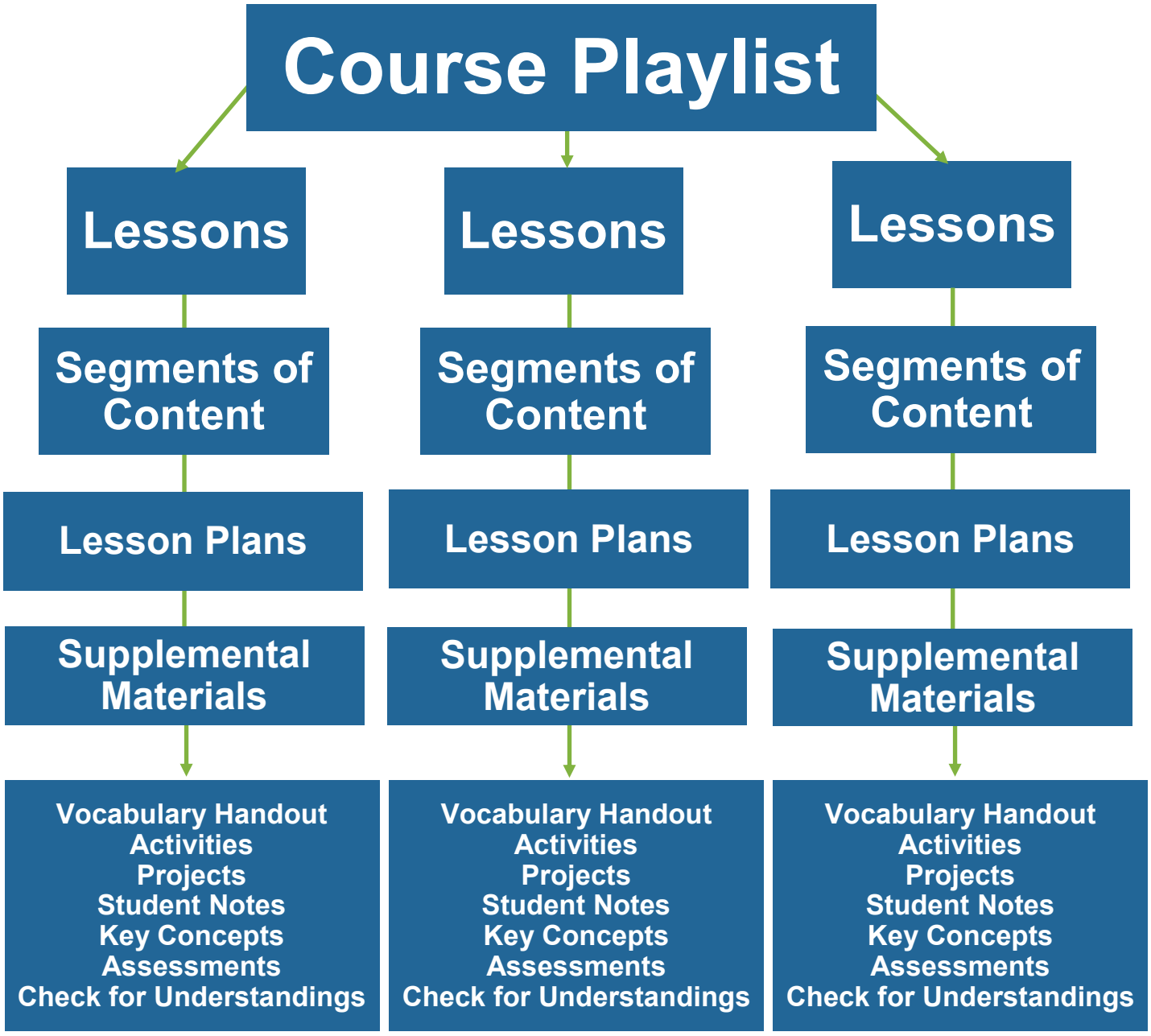




PLEASE NOTE: This lesson is for review purposes only.

REVIEW TIP:
iCEV LAYOUT OVERVIEW

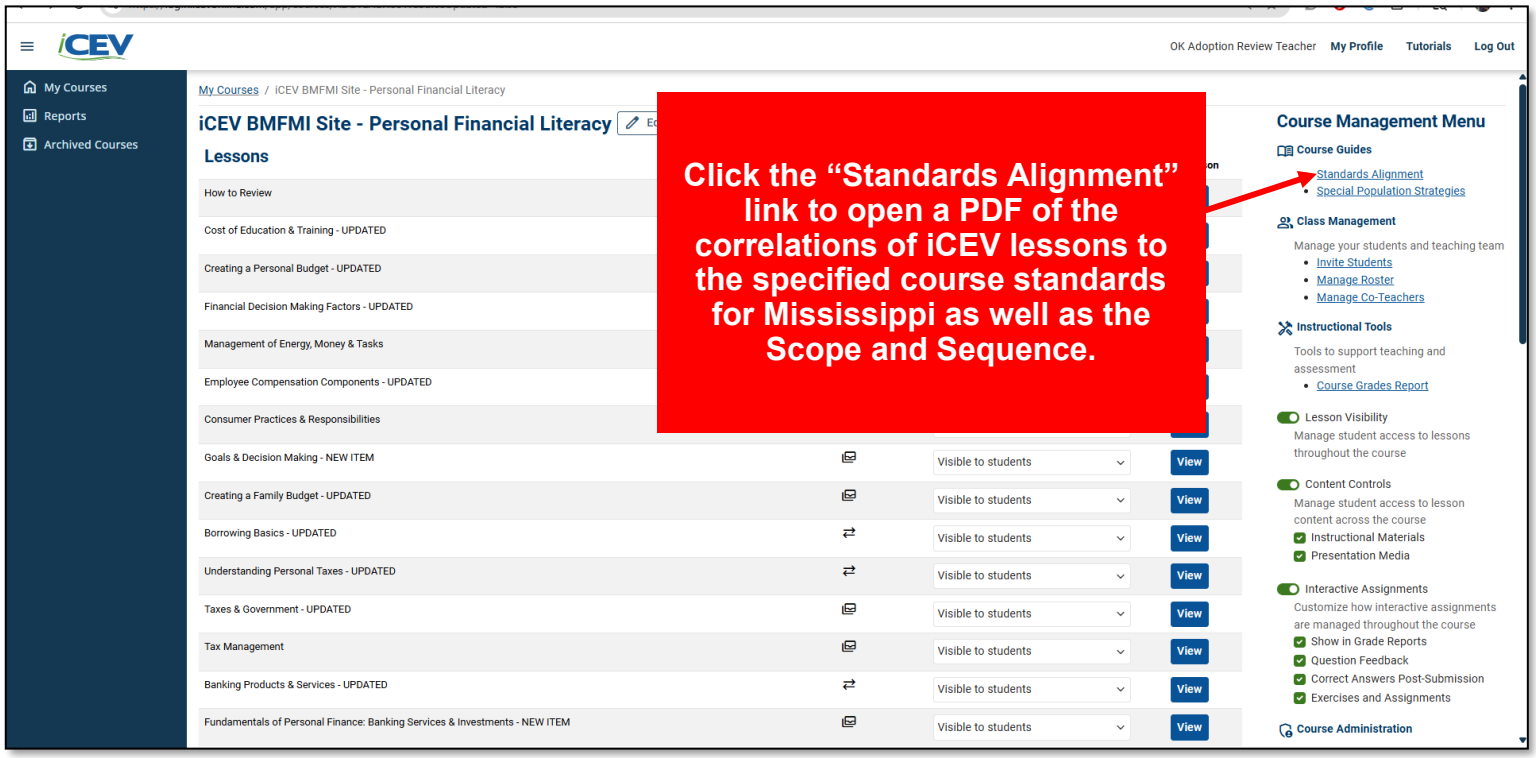
iCEV curriculum is organized into course playlists which contain all of the materials for a course. Each course playlist is composed of video and PowerPoint® lessons and text-facing content with navigable content tabs which can be thought of as the chapters of the course playlist. Each lesson is comprised of smaller learning objective based segments. Additionally, each lesson is accompanied by a lesson plan as well as pre-made supplemental materials, such as vocabulary handouts, activities, projects, worksheets, student notes, key concepts, student handouts, assessments and check for understandings.



Step 4: Click the "Standards Alignment" link to view the Evaluation Tool for the course. *

* **This PDF is an electronic copy of the course standards aligned to iCEV content you should have received for the course.**

* Regardless of the course you are reviewing, the general layout of the Lessons page and the iCEV Standards Alignment are the same.



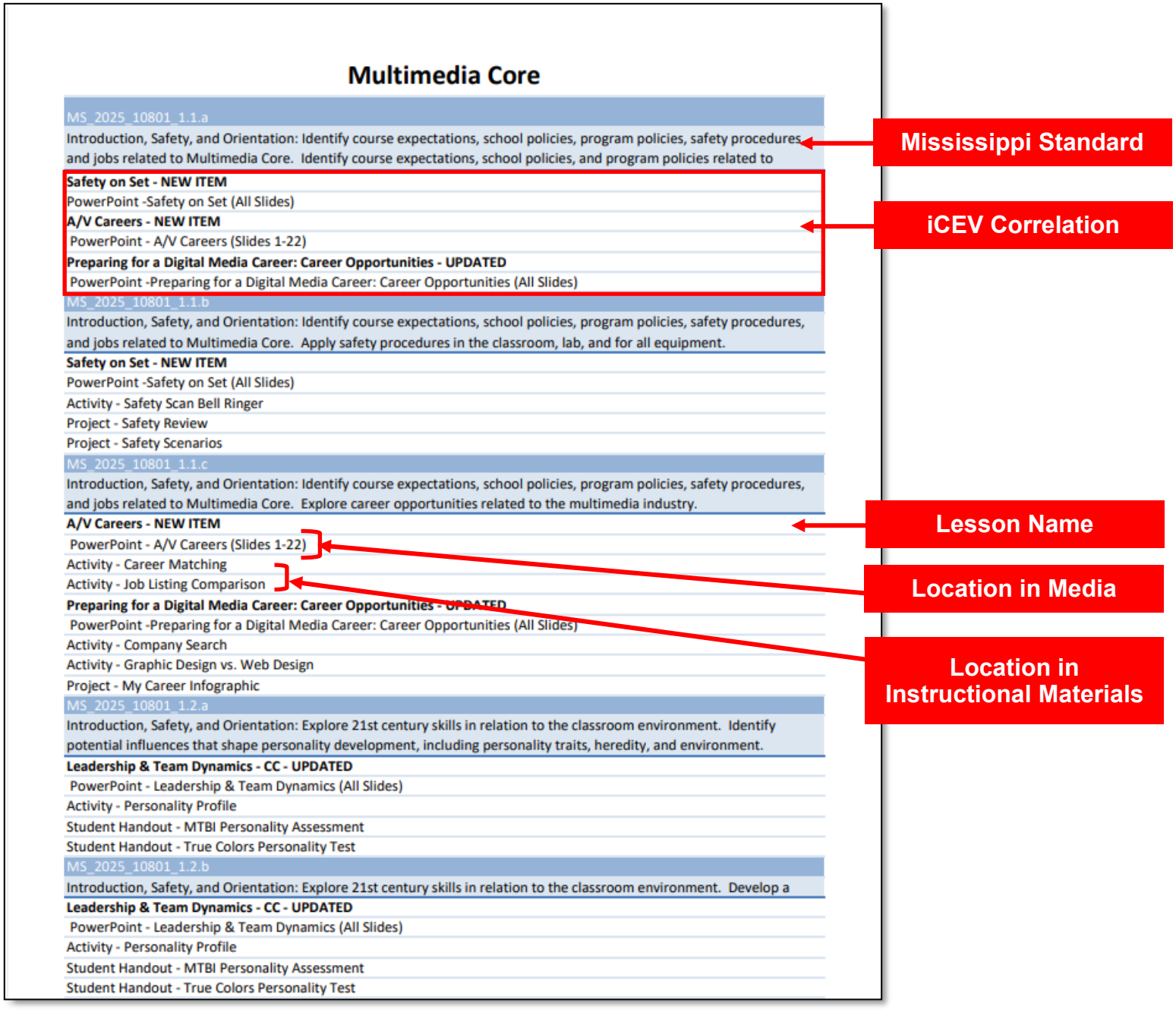
PLEASE NOTE:

The Standards Alignment button opens a copy of the correlations to the standards specified by the Mississippi Department of Education for the course you are reviewing. Additionally, this document contains a Scope and Sequence of the content.

The Special Populations button opens a document which provides teaching strategies and potential solutions to meet the needs of all students in a classroom. This document is referenced in the correlations and can be accessed at any time on the Lessons page.

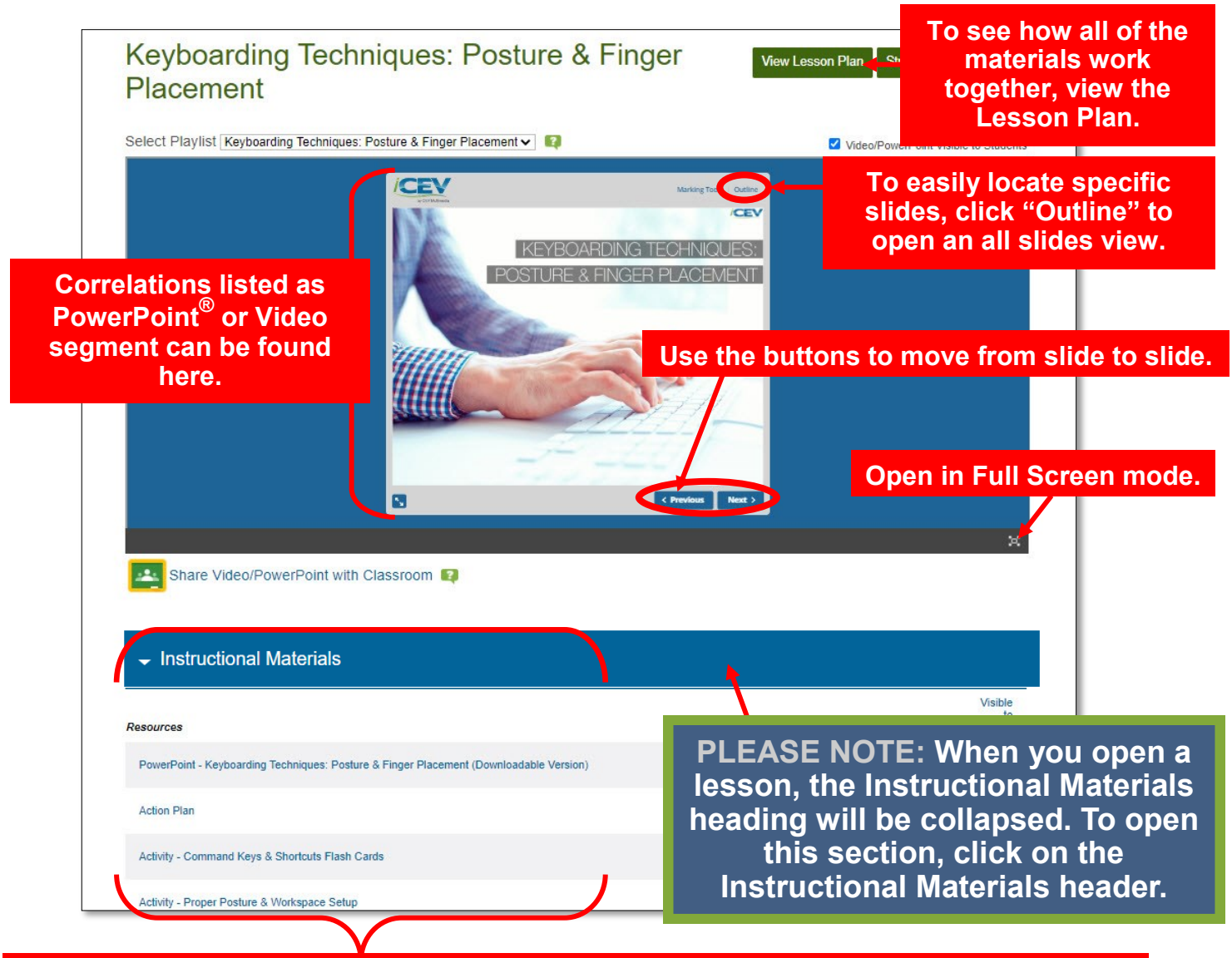
REVIEW TIP: DECIPHERING CORRELATIONS

Each standard is shown in a light blue shaded row. The iCEV lessons that align with each standard are listed directly below, indicated by gray bars. These gray bars represent the lesson titles, which can also be found on the Lessons Page. Under each lesson title, specific components—such as relevant PowerPoint slides, video segments, Activities, Projects, and Student Handouts—are listed to demonstrate how the lesson supports the standard. More than one lesson may be required to fully meet the standard.



Step 5: Review correlations to Mississippi Standards.*

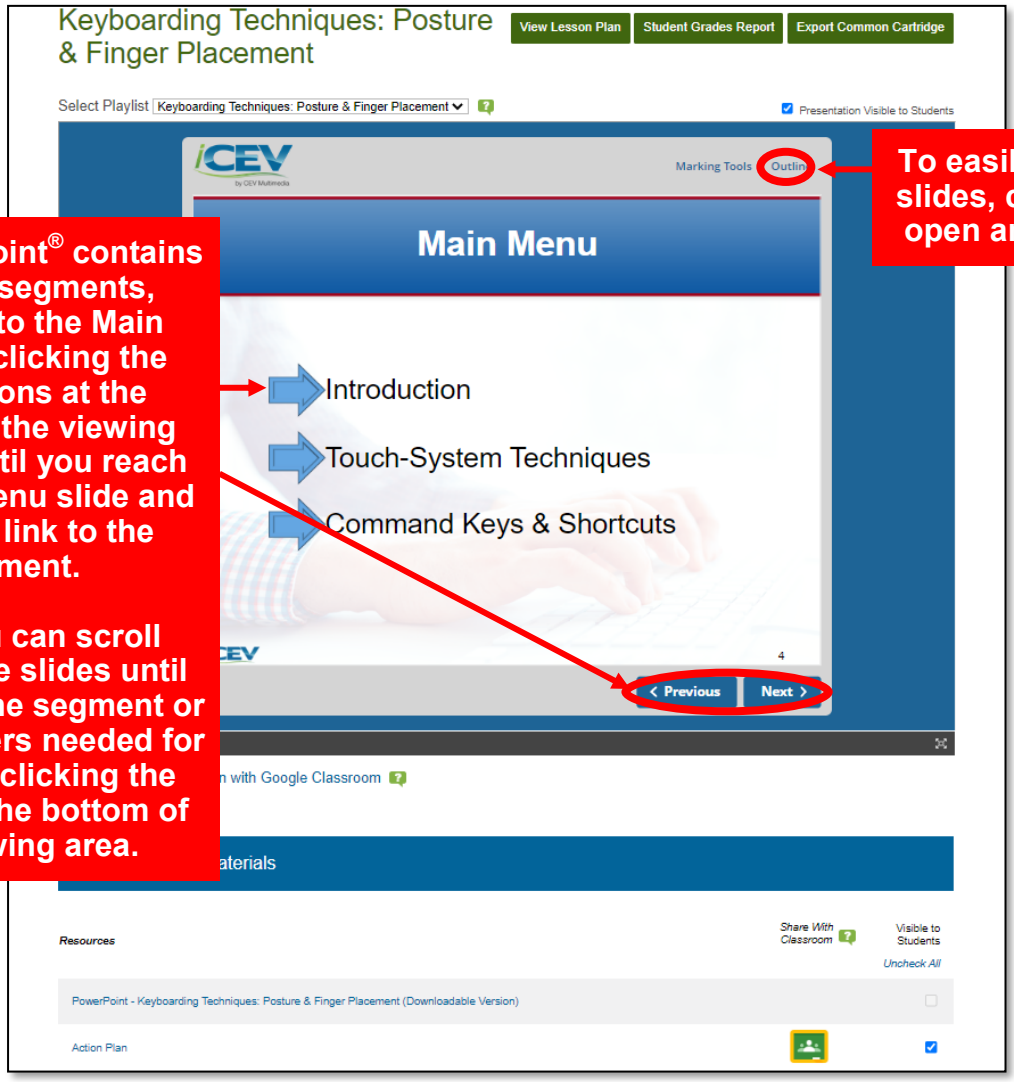
* All iCEV lessons utilize Microsoft® PowerPoint® presentations, video chapters or a combination of both which contain the content of the standard in a segment of slides or video. Below is an example of a PowerPoint® lesson.



The Location in Supplemental Materials of the Lesson correlations will appear beneath the Instructional Materials heading. You may need to scroll through the list to locate each item. To open the item listed, click on the link. When clicked, each link will open a file in another tab.

All supplemental materials are included here such as Student Handouts, Activities, Projects, Vocabulary Handouts and Assessments. See Appendix for more information.

REVIEW TIP:
LOCATING POWERPOINT® SEGMENTS OR SLIDES



If a PowerPoint® contains multiple segments, navigate to the Main Menu by clicking the arrow icons at the bottom of the viewing window until you reach the Main Menu slide and click the link to the segment.

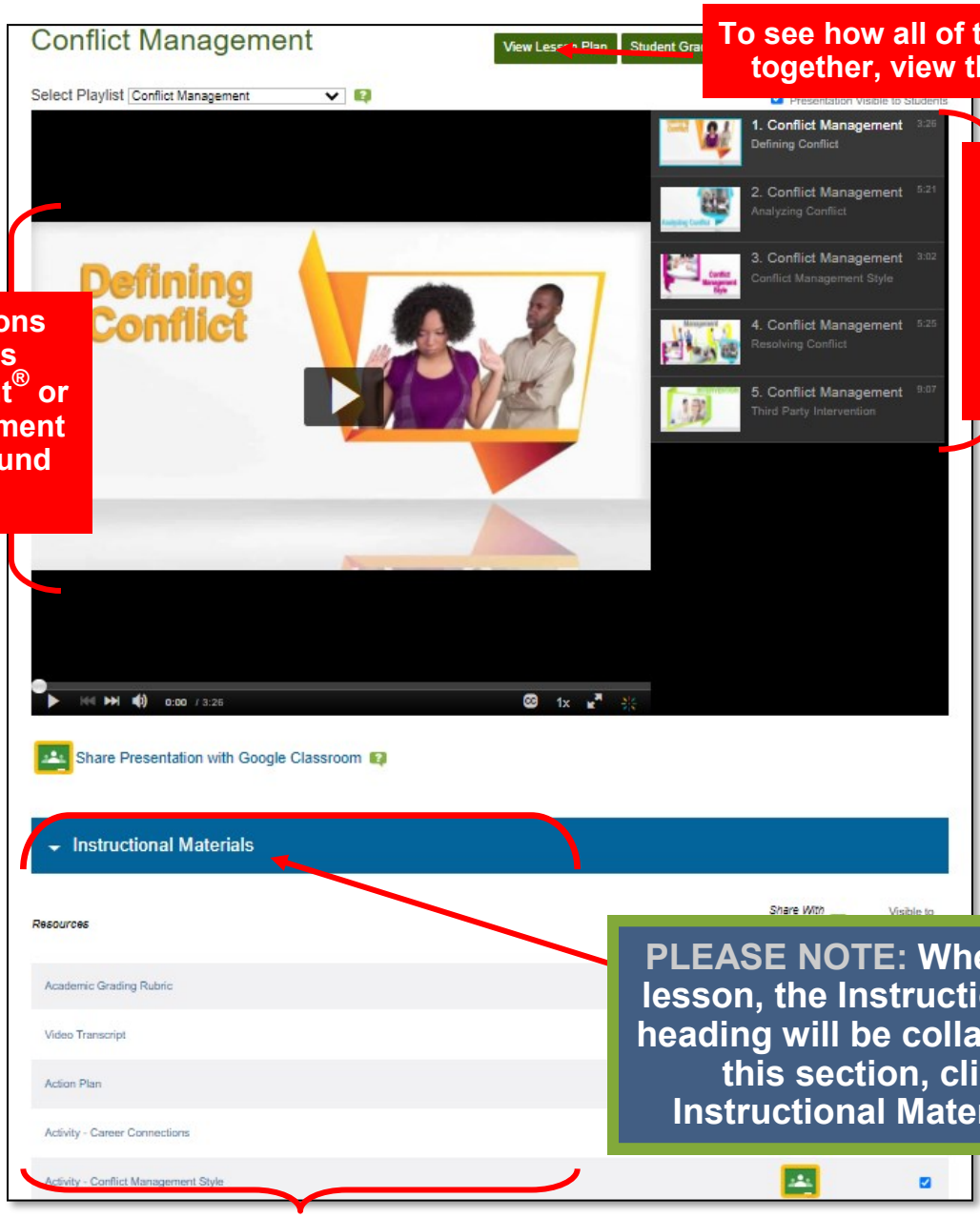
Also, you can scroll through the slides until you reach the segment or slide numbers needed for review by clicking the arrows at the bottom of the viewing area.

To easily locate specific slides, click "Outline" to open an all slides view.

PLEASE NOTE: The Main Menu slide of a PowerPoint® lesson can typically be found beginning on slide three or four of a presentation.

Step 5: Review correlations to Mississippi Standards.*

* All iCEV lessons utilize Microsoft® PowerPoint® presentations, video chapters or a combination of both which contain the content of the standard in a segment of slides or video. Below is an example of a video lesson.



To see how all of the materials work together, view the Lesson Plan.

The segments listed in the correlations can be found listed in the video player.

Correlations listed as PowerPoint® or Video segment can be found here.

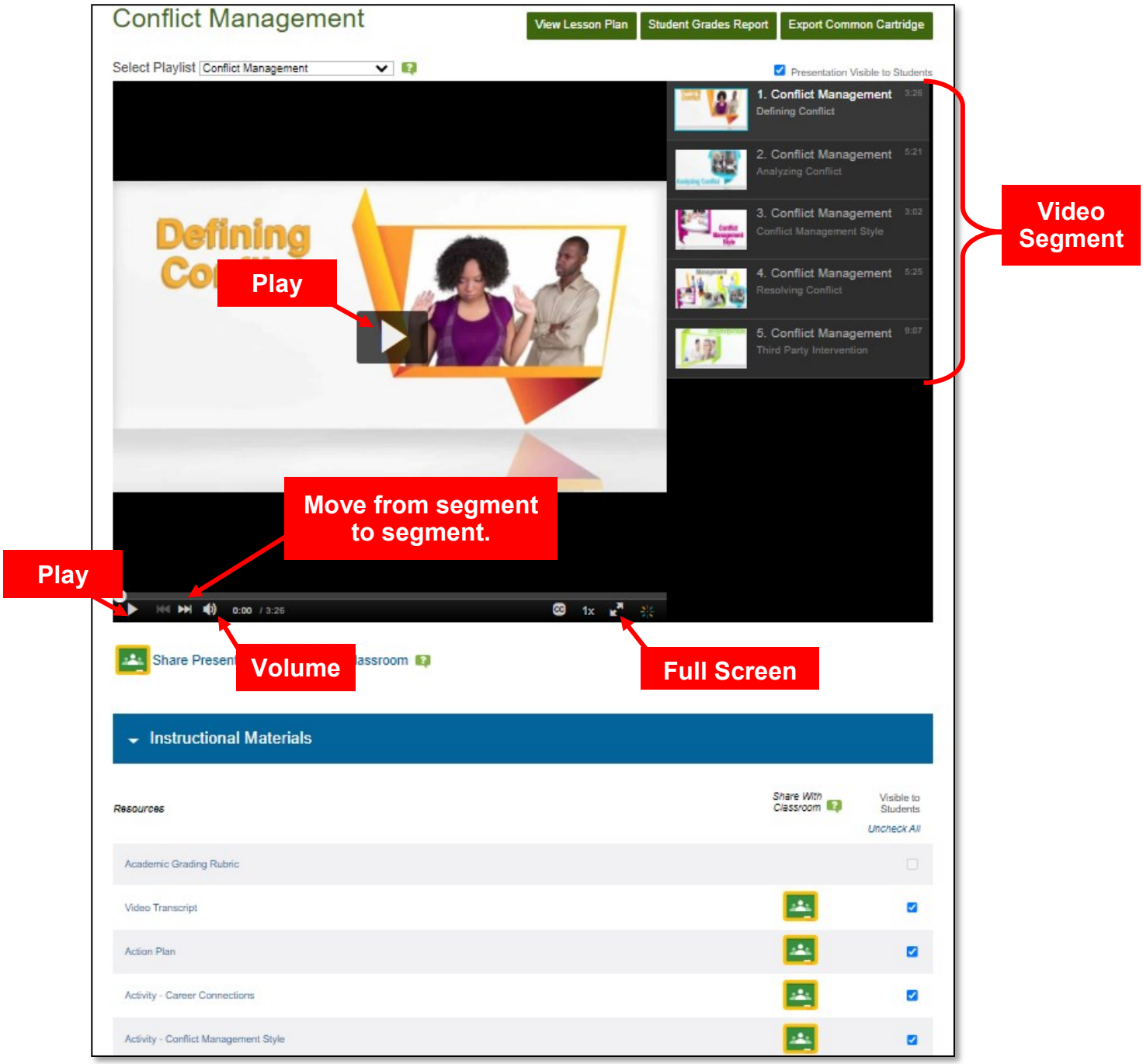
PLEASE NOTE: When you open a lesson, the Instructional Materials heading will be collapsed. To open this section, click on the Instructional Materials header.

The Location in Supplemental Materials of the Lesson correlations will appear beneath the Instructional Materials heading. You may need to scroll through the list to locate each item. To open the item listed, click on the link. When clicked, each link will open a PDF of the file in another window.

All supplemental materials are included here such as Student Handouts, Activities, Projects, Vocabulary Handouts and Assessments. See Appendix for more information.

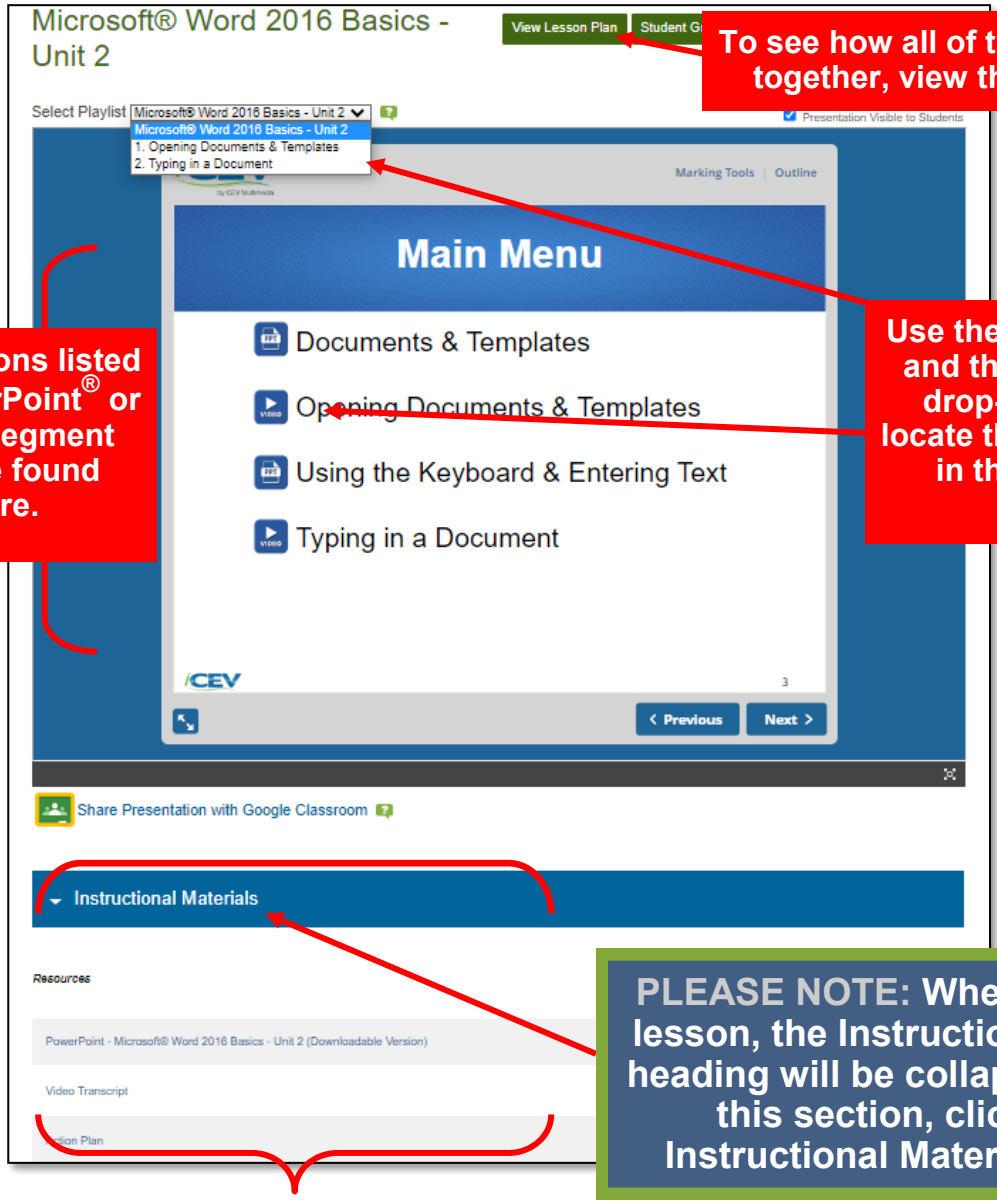
REVIEW TIP:
LOCATING VIDEO SEGMENTS

All video lessons are segmented into small learning objectives. Each segment can be played separately by clicking on the desired segment, or you can click play on the first segment and watch each segment in order. Once a segment finishes playing, the next segment will automatically load and begin playing.



Step 5: Review correlations to Mississippi Standards.*

* All iCEV lessons utilize Microsoft® PowerPoint® presentations, video chapters or a combination of both (hybrid) which contain the content of the standard in a segment of slides or video. Below is an example of a hybrid lesson.



To see how all of the materials work together, view the Lesson Plan.

Correlations listed as PowerPoint® or Video segment can be found here.

Use the Main Menu slide and the Select Playlist drop-down menu to locate the segment listed in the alignments.

PLEASE NOTE: When you open a lesson, the Instructional Materials heading will be collapsed. To open this section, click on the Instructional Materials header.

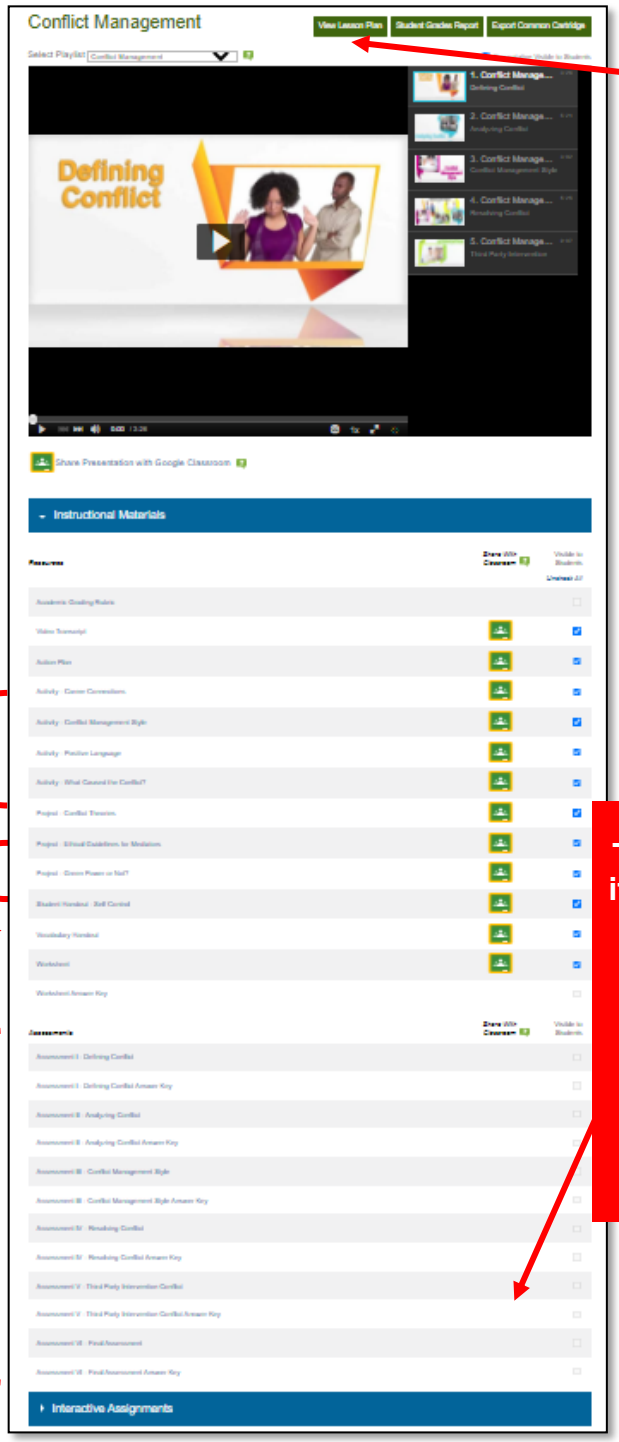
The Location in Supplemental Materials of the Lesson correlations will appear beneath the Instructional Materials heading. You may need to scroll through the list to locate each item. To open the item listed, click on the link. When clicked, each link will open a PDF of the file in another window.

All supplemental materials are included here such as Student Handouts, Activities, Projects, Vocabulary Handouts and Assessments. See Appendix for more information.

Appendix

iCEV lessons may include the following:

- Lesson plan
- Student activities and projects
- Assessments, check for understandings and final assessments
- Vocabulary handouts
- Student handouts



Lesson Plan

Activities

Projects

Vocabulary

Assessments

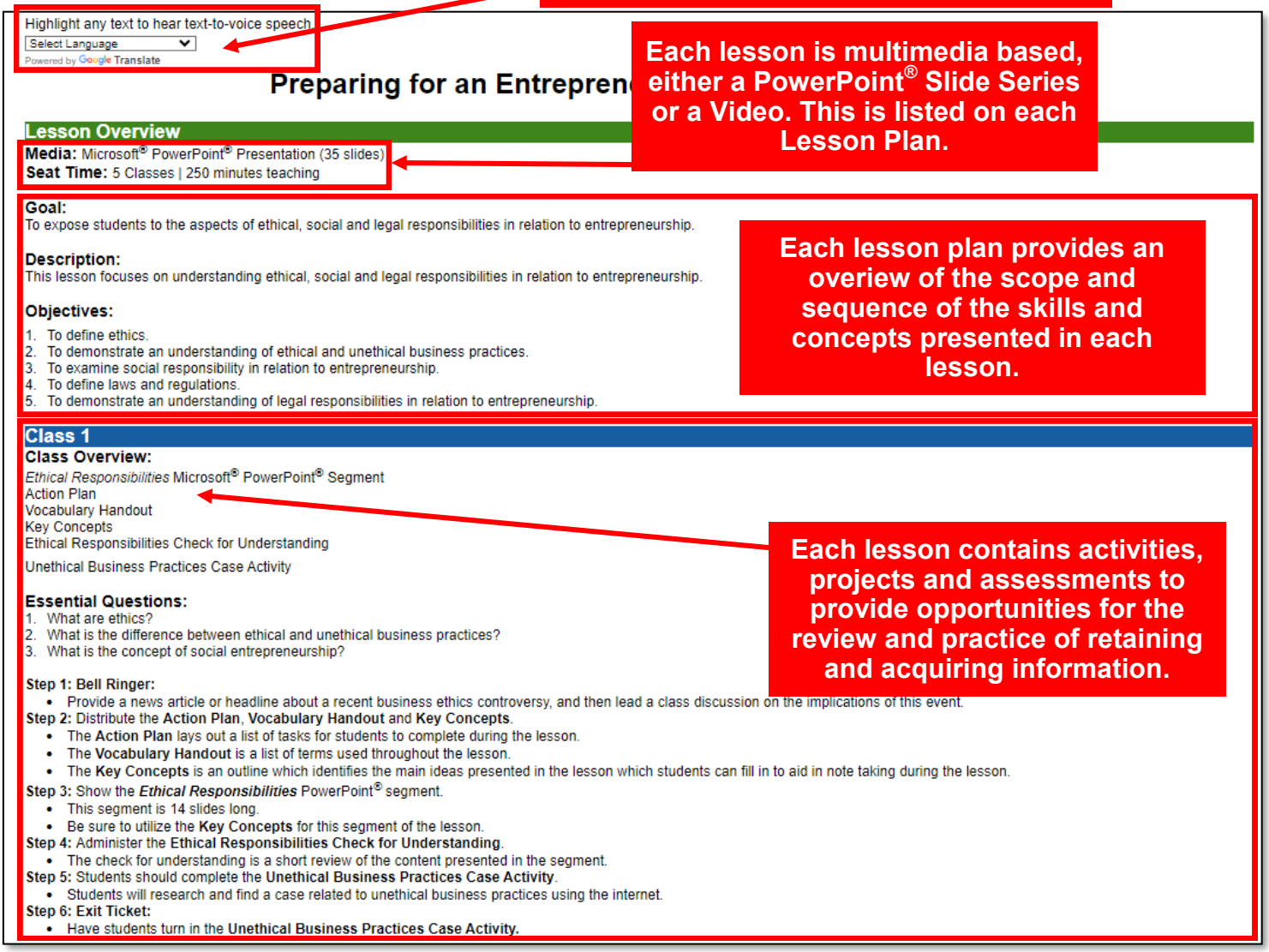
The Interactive heading, if clicked, will open a set of interactive activities and assessments.

These interactive options are duplicates of printable materials and are not necessary for the review process.

Appendix - iCEV Lesson Plan

Each lesson can be changed to the language needed for the student.

Each lesson plan is equipped with a text to speech function. This allows any text to be highlighted and read in the chosen language.



Highlight any text to hear text-to-voice speech

Select Language

Powered by Google Translate

Preparing for an Entrepren

Each lesson is multimedia based, either a PowerPoint® Slide Series or a Video. This is listed on each Lesson Plan.

Lesson Overview

Media: Microsoft® PowerPoint® Presentation (35 slides)
Seat Time: 5 Classes | 250 minutes teaching

Goal:
To expose students to the aspects of ethical, social and legal responsibilities in relation to entrepreneurship.

Description:
This lesson focuses on understanding ethical, social and legal responsibilities in relation to entrepreneurship.

Objectives:

1. To define ethics.
2. To demonstrate an understanding of ethical and unethical business practices.
3. To examine social responsibility in relation to entrepreneurship.
4. To define laws and regulations.
5. To demonstrate an understanding of legal responsibilities in relation to entrepreneurship.

Each lesson plan provides an overiew of the scope and sequence of the skills and concepts presented in each lesson.

Class 1

Class Overview:

Ethical Responsibilities Microsoft® PowerPoint® Segment
Action Plan
Vocabulary Handout
Key Concepts
Ethical Responsibilities Check for Understanding
Unethical Business Practices Case Activity

Each lesson contains activities, projects and assessments to provide opportunities for the review and practice of retaining and acquiring information.

Essential Questions:

1. What are ethics?
2. What is the difference between ethical and unethical business practices?
3. What is the concept of social entrepreneurship?

Step 1: Bell Ringer:
- Provide a news article or headline about a recent business ethics controversy, and then lead a class discussion on the implications of this event.

Step 2: Distribute the **Action Plan**, **Vocabulary Handout** and **Key Concepts**.
- The **Action Plan** lays out a list of tasks for students to complete during the lesson.
- The **Vocabulary Handout** is a list of terms used throughout the lesson.
- The **Key Concepts** is an outline which identifies the main ideas presented in the lesson which students can fill in to aid in note taking during the lesson.

Step 3: Show the ***Ethical Responsibilities*** PowerPoint® segment.
- This segment is 14 slides long.
- Be sure to utilize the **Key Concepts** for this segment of the lesson.

Step 4: Administer the **Ethical Responsibilities Check for Understanding**.
- The check for understanding is a short review of the content presented in the segment.

Step 5: Students should complete the **Unethical Business Practices Case Activity**.
- Students will research and find a case related to unethical business practices using the internet.

Step 6: Exit Ticket:
- Have students turn in the **Unethical Business Practices Case Activity.**

Appendix - iCEV Lesson Plan

Activity Overview

Unethical Business Practices Case
Students will research and find a case related to unethical business practices using the internet.

***Accommodations*:**
Allow for extra time for completion.

***Modifications*:**
Provide students with a list of resources.

***Extension*:**
Allow students to share their results with the class.

Project Overview

Laws & Regulations Poster
Students will choose a federal government agency and research the laws and regulation
and regulations.

Accommodations:
Allow for extra time for completion.

Modifications:
Provide students with a list of resources to assist them as they prepare their poster base

Extension:
Allow students to research a state agency, which is an extension of the federal agency th

Social Entrepreneurship Challenge
Students will work in groups to develop a plan to solve a social or environmental issue at their school and present it to the class.

Accommodations:
Allow for extra time for completion.

Modifications:
Group students with peers who are willing and able to assist them and allow students to present to a smaller audience.

Extension:
Allow students to present their challenges to school personnel or the school board.

Each lesson includes projects and activities which serve as learning objectives and opportunities for learners to practice lesson objectives and skills.

The activities and projects offer options for differentiated instruction.

By utilizing the activities and projects accompanying each lesson, technology and manipulatives are incorporated into each lesson.

Career & Technical Student Organizations

BPA
Ethics & Professionalism

FBLA
Business Ethics
Business Law

Each lesson aligns to Career & Technical Student Organization competitions to enhance student learning of the career-ready standards through application.

Career Connections

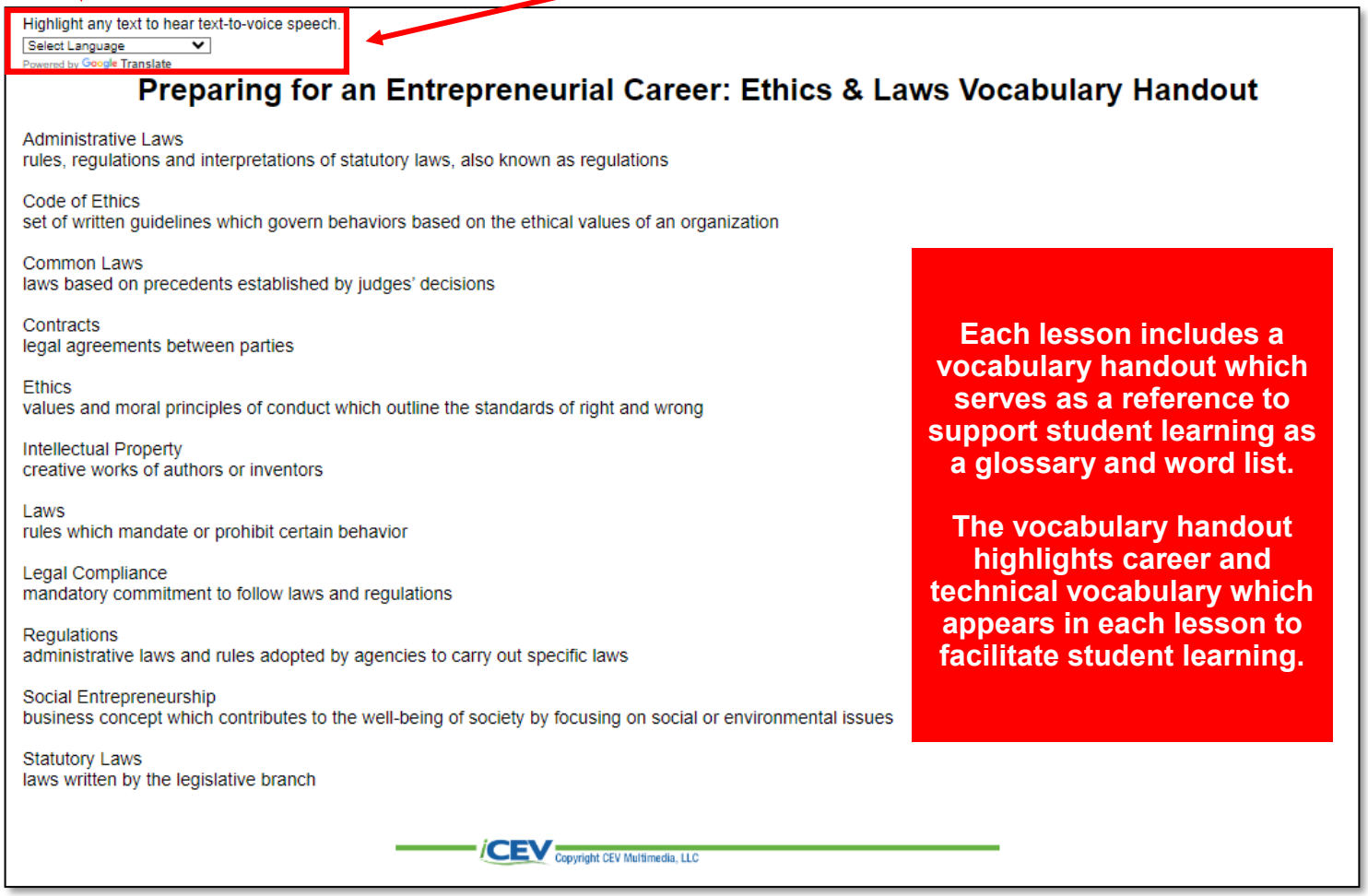
Using the **Career Connections Activity** allows students to explore careers associated with this lesson by viewing career interviews with various industry professionals. The career interviews are located in the Select Media drop-down menu on the lesson page. See the **Career Connections Activity** for more details.
Bryan Mudd, News Anchor, KAMC-TV, Lubbock, Texas
Kerri Harris, Ph.D., President & CEO, International HACCP Alliance
Maria Allridge, Human Resources Specialist, Justin Brands, Inc.

Each lesson lists career interviews from industry professionals which apply to the content of the lesson and encourage career exploration.

Appendix - iCEV Vocabulary

Each lesson can be changed to the language needed for the student.

Each lesson plan is equipped with a text to speech function. This allows any text to be highlighted and read in the chosen language.



Highlight any text to hear text-to-voice speech.
Select Language
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Preparing for an Entrepreneurial Career: Ethics & Laws Vocabulary Handout

Administrative Laws
rules, regulations and interpretations of statutory laws, also known as regulations

Code of Ethics
set of written guidelines which govern behaviors based on the ethical values of an organization

Common Laws
laws based on precedents established by judges' decisions

Contracts
legal agreements between parties

Ethics
values and moral principles of conduct which outline the standards of right and wrong

Intellectual Property
creative works of authors or inventors

Laws
rules which mandate or prohibit certain behavior

Legal Compliance
mandatory commitment to follow laws and regulations

Regulations
administrative laws and rules adopted by agencies to carry out specific laws

Social Entrepreneurship
business concept which contributes to the well-being of society by focusing on social or environmental issues

Statutory Laws
laws written by the legislative branch

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Each lesson includes a vocabulary handout which serves as a reference to support student learning as a glossary and word list.

The vocabulary handout highlights career and technical vocabulary which appears in each lesson to facilitate student learning.

Technology Support

Mississippi State Department of Education
2025-2026 Instructional Materials Adoption

1. Thin Common Cartridge 1.3:
   Version 1.3 is not available at this time. We do have Thin Common Cartridge 1.2.

2. School Rostering:
   Yes - Clever, Classlink, OneRoster

3. PDF and/or ePUB Format:
   As an online, cloud-based curriculum, our platform does not supply PDF or ePub formats. We provide our curriculum utilizing three main components for educators and students: Microsoft PowerPoint Presentations through an onscreen player with accessibility functionality, with a downloadable version of the presentation available; videos with closed captioning and a search feature, as well as a printable version of the transcript; and webpages which provides lessons plans for the teacher and collaborative projects, lab activities, handouts and assessments with text-to-speech and translation functionality along with various interactive components for students.

4. Alternate Text for Images, Captions and Subtitles, Read-Aloud and Other Accessibility Functions:
   We offer accessibility mode in our Microsoft PowerPoint Presentations for use with a variety of screen readers, such as JAWS or NVDA. We offer automatic text-to- speech and translation functionality built into the webpage in both our instructional materials and interactive materials. Additionally, we offer accessibility options specifically within our interactive materials, which will influence the color scheme and font size, as well as provide directions for zoom functionality. We have tested several resources for assistive technology, such as JAWS, NVDA, Eye-Able, among others. Materials are easy to convert to Braille using programs such as RoboBraille (http://www.robobraille.org/).

5. 508 Compliant Platform:
   Our platform is WCAG 2.1 Levels A & AA and Revised Section 508 compliant (VPAT is provided).

6. Privacy-Data Security Specifications:
   https://www.icevonline.com/privacy-policy

7. Browser and OS Support:

It is a SaaS solution that is accessible via any modern web browser and operating system that is currently supported by its respective vendor.

This includes:

- Browsers: Microsoft Edge, Google Chrome, Apple Safari, and other vendor-supported browsers.
- Operating Systems: Windows, macOS, iOS, Android, and other vendor-supported platforms.

Use the latest stable versions to ensure optimal performance and security.

8. LMS Compatibility:

LTI - Yes

9. Class Gather/OneRoster/SSO Compatibility:

Class Gather – No
OneRoster – Yes
SSO - Yes