Air Traffic Controller

8734 36 weeks / 280 hours

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Acknowledgments

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Course Description

Suggested Grade Level: 9 or 10

In Air Traffic Controller, students will be introduced to the skills necessary to ensure the safe, orderly, and expeditious flow of manned and unmanned air traffic. They will explore the role of air traffic controllers within the National Airspace System (NAS), as well as training and career opportunities in this field. Instruction will include the function and history of air traffic control (ATC), responsibilities and priority of duties, meteorology, emergency situations, and related topics. This course will provide an introduction for students interested in careers in air traffic control and related jobs.
As noted in Superintendent's Memo #058-17 (2-28-2017), this Career and Technical Education (CTE) course must maintain a maximum pupil-to-teacher ratio of 20 students to one teacher, due to safety regulations. The 2016-2018 biennial budget waiver of the teacher-to-pupil ratio staffing requirement does not apply.

**Task Essentials Table**

- Tasks/competencies designated by plus icons (⊕) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (○) are optional
- Tasks/competencies designated by minus icons (⊖) are omitted
- Tasks marked with an asterisk (*) are sensitive.

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**Understanding Theory and Fundamentals of Radar Operation and Procedures**

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### Exploring Career Opportunities in ATC

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Legend: 🟢Essential ☐Non-essential ☐Omitted

### Curriculum Framework

### Exploring Air Traffic Control (ATC) Systems of the Past, Present, and Future

#### Task Number 39

**Create a timeline, including trends, of ATC development.**

**Definition**

Timeline should include sequential progression of ATC development from the 1920s to present day and should include significant trends.

**Process/Skill Questions**

- What happened in 1981 that affected the field of ATC in the United States?
- What might prevent timely upgrades to the nation’s air traffic control system?
Task Number 40

Describe the function of the International Civil Aviation Organization (ICAO) in international ATC.

Definition

Description should include the

- role of the Federal Aviation Administration (FAA)
- purpose of the ICAO
- influence of the ICAO.

Process/Skill Questions

- How does the ICAO affect domestic and international aviation?
- Why are international standards important?

Task Number 41

Research issues that affect current and future ATC systems.

Definition

Research should include, but not be limited to,

- aircraft and air traffic equipment
- virtual ATC
- non-radar environments (e.g., satellite-based navigation)
- airport infrastructure
- underuse of Global Positioning System (GPS) approaches.

Research should also include planned/future improvements, such as

- the Next Generation Air Transportation System (NextGen)
- Unmanned Aircraft Systems (UAS) operations in air space
- better technology available for monitoring aircraft
- Automatic Dependent Surveillance Broadcast (ADS-B)
• cybersecurity considerations.

Process/Skill Questions

• Why is ATC a relatively technologically-deficient field?
• What cybersecurity considerations exist in ATC?

Understanding Meteorology

Task Number 42

Identify hazardous weather conditions that affect different phases of flight.

Definition

Identification should include

• icing conditions
• thunderstorms, lightning, and squall lines
• wind shear
• low visibility
• turbulence
• cross wind
• frontal passage.

Process/Skill Questions

• What is the effect of turbulence?
• How does weather affect aircraft as well as the ATC system?

Task Number 43
**Define Instrument Meteorological Conditions (IMC) and Visual Meteorological Conditions (VMC).**

**Definition**

Definition of *Instrument Meteorological Conditions (IMC)* should include the concept that IMC is a category that describes weather conditions during which visibility is less than three miles and ceiling is less than 1000 feet.

Definition of *Visual Meteorological Conditions (VMC)* should include the concept that VMC is a category that describes weather conditions during which visibility is better than three miles and ceiling is more than 1000 feet.

**Process/Skill Questions**

- How are IMC and VMC the same and different?
- To what does the term *ceiling* refer?

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**Demonstrating Communication Skills**

**Task Number 44**

**Demonstrate use of the phonetic alphabet and the number system.**

**Definition**

Demonstration should include oral recitation and use in scenarios of the phonetic alphabet and the number system.

**Process/Skill Questions**

- How is *Virginia* spelled phonetically?
- Why is use of the phonetic alphabet important?
Task Number 45

Demonstrate radio communications.

Definition

Demonstration should include role playing of pilot-to-controller and controller-to-pilot communications.

Additionally, demonstration should include the uses for handoffs and point-outs, including

- differentiating between the two
- determining when each procedure should be applied
- applying each procedure.

Process/Skill Questions

- How might a pilot contact a tower or vice versa?

Task Number 46

Demonstrate the ability to identify and correct critical read-back and hear-back errors.

Definition

Demonstration should include identifying the clearance error and making immediate corrections for the following:

- Land and hold short operations (LAHSO)
- Runway crossings
- Clearances
- Altitude
- Speed
- Taxi instructions
- Line up and wait (LUAW)

Process/Skill Questions

- How might one demonstrate various control instructions?
Task Number 47

Respond to discrete emergency codes.

Definition

Response should include

- defining 7500, 7600, and 7700 emergency codes
- using the appropriate response for each emergency code.

Process/Skill Questions

- When and why are emergency codes used?

Task Number 48

Role-play unusual situations (e.g., inflight emergency, hijacking, communication failure, tower interruption [ATC Zero]) for ATC.

Definition

Role-play should include demonstrating appropriate responses to scenarios and case studies that present unusual ATC situations.

Process/Skill Questions

- What would happen if the sprinkler system went off inside an airport’s control tower?
- What would happen if an airport lost total communications?

Interpreting Charts and Publications
Task Number 49

Explain approach plates and airport diagrams.

Definition

Explanation should include identification of the major elements of an approach plate and airport diagrams and the purpose of each.

Process/Skill Questions

- Why are airport diagrams used?
- How would an air traffic controller read an approach plate?

Task Number 50

Describe clearances, using Standard Instrument Departure (SID) procedures, Standard Terminal Arrival Routes (STAR), and Preferential Departure Routes (PDR).

Definition

Description of clearance should include

- defining Standard Instrument Departure (SID), Standard Terminal Arrival Routes (STAR), Preferential Departure Routes (PDR), and explaining the importance of each
- describing climb via/descend via (i.e., ATC clearance that allow the pilot to fly a charted path without the pilot having further ATC instructions)
- providing additional instructions to the pilot, as needed.

Process/Skill Questions

- How would an air traffic controller issue a SID, STAR, or PDR?

Task Number 51

Apply ATC terms associated with charts and publications.
Definition

Application should include, but is not limited to,

- current *Aeronautical Information Manual (AIM)*
- legends from charts and publications
- current *FAA Air Traffic Control Handbook (JO 7110.65)*.

Process/Skill Questions

- What is taxiway?
- What are hold short lines?

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**Understanding Basic Aircraft Recognition and Performance Characteristics**

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**Task Number 52**

**Identify the types and categories of aircraft, their names, and identifiers.**

Definition

Identification should include visually recognizing different aircraft types and categories, describing physical characteristics, and decoding aircraft by identifiers.

Process/Skill Questions

- What characterizes a B747?
- What is an example of a famous aircraft?
- What is an example of a military aircraft?

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**Task Number 53**
Discuss aircraft separation based on performance characteristics.

Definition

Discussion should include

- comparison of the performance of various types and categories of aircraft
- consideration of air speed
- determination of the spatial orientation for each aircraft type.

Process/Skill Questions

- How do performance characteristics affect aircraft separation?

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Task Number 54

Discuss UAS and performance characteristics.

Definition

Discussion should include

- design factors
- propulsion systems
- weather
- aircraft weight and balance.

Process/Skill Questions

- What are the different UAS propulsion systems?
- What factors affect UAS performance?

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Demonstrating an Understanding of Control Tower Procedures
Task Number 55

Explain how a controller obtains and amends information from the flight data processing system (FDPS).

Definition

Explanation should include

- describing how the FDPS operates
- interpreting the results of a filed flight plan
- describing the types of flight strips associated with different tower operations.

Process/Skill Questions

- What is the flight data processing system? Why is it important to air traffic control?

Task Number 56

Explain the purpose and operation of the automatic terminal information service (ATIS).

Definition

Explanation should include the role and purpose of

- interpreting Aviation Routine Weather Report (METAR)
- comprehending Notice to Airmen (NOTAM)
- terminal area forecast (TAF)
- implementing pertinent airfield information.

Process/Skill Questions

- What is the purpose of METAR?

Task Number 57
Demonstrate the operation of the ATIS.

Definition

Demonstration should include making clear and concise ATIS presentations.

Process/Skill Questions

- What is the purpose of the ATIS?

Task Number 58

Issue ATC clearances.

Definition

Issuance of ATC clearances could include, but are not limited to,

- instrument flight rules (IFR) clearance
- visual flight rules (VFR) clearance
- takeoff/landing clearance
- taxi clearance
- land and hold short operations (LAHSO).

Note: Students should understand the concept that approach clearances are issued in a radar environment while landing/takeoff clearances are issued in a tower environment.

Process/Skill Questions

- What are three types of ATC clearances?

Task Number 59

Explain the differences between IFR and VFR flight plans.

Definition

Explanation should include the concepts that
• IFR indicates that the pilot is navigating via instruments under specific rules
• VFR indicates flight via sight (e.g., see and be seen).

Definition could also include the importance of special visual flight rules (SVFR).

**Process/Skill Questions**

• Why would a pilot file an IFR flight plan?
• Can a pilot fly VFR when visibility is extremely limited? Explain.

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**Task Number 60**

**Identify the duties of a controller in a control tower.**

**Definition**

Duties should include, but not be limited to,

• receiving or coordinating clearance delivery/flight data
• ensuring or monitoring ground control
• ensuring or monitoring local control.

**Process/Skill Questions**

• What ATC position would typically issue taxi instructions?
• With whom does the local controller normally communicate?

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**Task Number 61**

**Use standard phraseology in all communications.**

**Definition**

Usage must include standard phraseology associated with the various tower positions.

**Process/Skill Questions**

• What phraseology would a controller use to tell a pilot to taxi to runway 25 but not take off?
• What instructions require read-back?
Task Number 62
Reconstruct runway incursions.

Definition

Reconstruction should include examples or case studies illustrating a person, vehicle, or aircraft that enters a runway with or without clearance.

Process/Skill Questions

- What would a vehicle entering a runway without permission be considered?
- How would a controller prevent a vehicle from committing a runway incursion?

Task Number 63
List components that prevent runway incursions.

Definition

List should include, but is not limited to,

- ground radar
- airfield lighting
- markings
- ATC memory aids.

Process/Skill Questions

- What steps can be taken to reduce runway incursions?
- Why is training important to reduce runway incursions?

Task Number 64
Identify static and dynamic hot spots at a typical airport.

Definition
Identification should include

- showing the difference between static (permanent) hot spots and dynamic (occurring under certain conditions) hot spots
- using publications and/or airport diagrams to locate hot spots.

**Process/Skill Questions**

- Why is it important to identify hot spots?

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**Task Number 65**

**Explain how the local controller sequences and separates aircraft in the traffic pattern.**

**Definition**

Explanation should include

- drawing and labeling traffic patterns
- implementing scenarios with various types/number of aircraft
- giving control instructions for proper pattern entry.

**Process/Skill Questions**

- What could happen if controllers were unable to sequence traffic?

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**Task Number 66**

**Apply the runway separation minima for landing and departing aircraft.**

**Definition**

Application should include

- defining the different aircraft categories and performance of each
- planning the aircraft separation based on the different categories and performance of aircraft.
Process/Skill Questions

- Why is it necessary to have runway separation minima?

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**Task Number 67**

**Explain wake turbulence and the rules concerning its implementation.**

**Definition**

Explanation should include

- defining wake turbulence
- describing the hazards of wake turbulence
- applying the separation criteria required to reduce the hazards of wake turbulence.

**Process/Skill Questions**

- What is an example of a fatal accident caused by wake turbulence? What was learned by the investigation?

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**Task Number 68**

**Explain the weather criteria for observing the instrument landing system (ILS) critical area.**

**Definition**

Explanation should include

- the purpose of holding short of the ILS critical area
- a description of the weather criteria associated with the holding at the ILS critical area.

**Process/Skill Questions**

- Why does weather affect the ILS critical area?
Task Number 69

Demonstrate knowledge of airport signage and markings.

Definition

Demonstration should include

- visual recognition of signage and markings and an explanation of the purpose of each
- identification of the location of various signage and markings.

Process/Skill Questions

- Why are signs and markings important?
- What information do the signs and markings provide?

Task Number 70

Demonstrate a progressive taxi clearance.

Definition

Demonstration should include

- describing when a progressive taxi clearance should be used
- using role-playing or scenarios to determine how to perform progressive taxi clearance instructions.

Process/Skill Questions

- Why would a progressive taxi clearance be issued?
- What is involved in demonstrating a progressive taxi clearance?

Task Number 71

List light gun procedures.

Definition
List should include

- situations where light gun usage is recommended
- the purpose of a light gun in ATC
- the FAA’s *Aeronautical Information Manual (AIM)* recommendations for light gun usage
- appropriate responses to the colors given.

**Process/Skill Questions**

- For what are the light gun signals used?
- When would light gun signals be used?

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**Understanding Theory and Fundamentals of Radar Operation and Procedures**

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**Task Number 72**

**Describe the principle of radar as it applies to ATC.**

**Definition**

Description should include

- a definition of radar
- the uses of radar in ATC
- limiting factors of radar coverage.

**Process/Skill Questions**

- What is radar?
- Why is radar coverage needed?
- What factors limit radar coverage?

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**Task Number 73**
Differentiate between primary and secondary radar.

Definition

Differentiation should include the concepts that primary is the radar return and secondary is the data transmission.

Process/Skill Questions

- What is primary radar?
- What is secondary radar?

Task Number 74

Differentiate between discrete and nondiscrete beacon codes.

Definition

Differentiation should include the following concepts:

- *Discrete* is a code that is assigned to only one aircraft within a particular area of airspace. The discrete beacon codes do not end in the numerals "00" (e.g., 0101, 5520, and 6421).
- *Nondiscrete* is a code that may be assigned, concurrently, to more than one aircraft within a particular airspace. The nondiscrete beacon codes end in the numerals "00" (e.g., 0100, 1200).

Process/Skill Questions

- Which type of beacon codes end in the numerals “00”?
- Which type of beacon codes can be assigned to only one aircraft within a particular area of airspace?

Task Number 75

Explain the methods of separating aircraft, using radar.

Definition

Explanation should include
• defining vertical and lateral separation
• giving examples of situations in which different methods would be used.

Process/Skill Questions

• What does vertical separation mean?
• What factors determine which methods of separating aircraft are used?

Understanding Operations in the National Airspace System (NAS)

Task Number 76

Describe the flow of flight-plan information through Air Traffic Control System Command Center (ATCSCC) and Traffic Management Units (TMU).

Definition

Description should include connecting the participating facilities to ensure that the flight-plan information is passed along to the various air traffic controllers prior to the arrival of the aircraft.

Process/Skill Questions

• Why is it important for the flight-plan information to be relayed prior to the arrival of the aircraft?

Task Number 77

Explain procedures used to assist lost or overdue aircraft.

Definition
Explanation should include

- reviewing the automatic responses for a lost or overdue aircraft
- describing procedures for alert notifications (ALNOT)
- discussing the emergency locator transmitter (ELT) (e.g., black box)
- brainstorming to determine solutions for the lost or overdue aircraft.

Process/Skill Questions

- What are ALNOTs?
- Why is an ELT important?

---

**Task Number 78**

**Categorize the types of controlled and uncontrolled airspace within the NAS.**

**Definition**

Categories should include

- controlled
  - Class A
  - Class B
  - Class C
  - Class D
  - Class E
- uncontrolled (i.e., Class G).

Process/Skill Questions

- What classes of airspace are categorized as controlled?
- Why are types of airspace categorized?

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**Task Number 79**

**Identify the types of special use airspace (SUA).**

**Definition**
Identification could include types such as

- restricted airspace
- prohibited airspace
- warning areas
- temporary flight rule (TFR)
- flight restricted zone (FRZ) (e.g., Washington, DC).

Process/Skill Questions

- What are examples of SUA?
- Why might a TFR exist?

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Exploring Career Opportunities in ATC

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Task Number 80

Research FAA and non-FAA career opportunities.

Definition

Research should include the various career fields requiring an aviation background. It should also include the preparation required for opportunities to advance in the field, as well as employment trends. The career search should include using job data banks and matching an individual's abilities, aptitudes, and job expectations with industry standards and the demand for jobs.

Many websites offer career exploration resources, including the Virginia Department of Education's Career Planning Guide.

Process/Skill Questions

- What types of jobs are available within the FAA?
- What training is required for an individual who wants to pursue a career in ATC?
Task Number 81

Identify requirements for becoming an air traffic controller.

Definition

Identification should include

- medical history and status
- educational requirements
- the importance of background checks and drug testing.

Process/Skill Questions

- What training is required for an individual who wants to pursue a career in ATC?

Task Number 82

Participate in a mock interview.

Definition

Participation should include the opportunity to practice interviewing skills prior to an actual interview. Students should play a variety of roles to illustrate interviewee behaviors both desirable (e.g., maintaining eye contact, asking informed questions) and undesirable (e.g., speaking too softly, failing to answer questions completely).

Process/Skill Questions

- What are three things an interviewee should always do, and three things an interviewee should never do?

SOL Correlation by Task

<table>
<thead>
<tr>
<th>39</th>
<th>Create a timeline, including trends, of ATC development.</th>
<th>English: 9.5, 10.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>History and Social Science: WG.1, WHI.1, WHII.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Language Code: English 9.1, 9.3, 9.5, 10.1, 10.3, 10.5</td>
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<tr>
<td>40</td>
<td>Describe the function of the International Civil Aviation Organization (ICAO) in international ATC.</td>
<td>History and Social Science: WG.1, WHI.1, WHII.1</td>
</tr>
<tr>
<td>41</td>
<td>Research issues that affect current and future ATC systems.</td>
<td>9.5, 9.8, 10.5, 10.8</td>
</tr>
<tr>
<td>42</td>
<td>Identify hazardous weather conditions that affect different phases of flight.</td>
<td>9.5, 10.5</td>
</tr>
<tr>
<td>43</td>
<td>Define <em>Instrument Meteorological Conditions (IMC)</em> and <em>Visual Meteorological Conditions (VMC)</em>.</td>
<td>9.3, 9.5, 10.3, 10.5</td>
</tr>
<tr>
<td>44</td>
<td>Demonstrate use of the phonetic alphabet and the number system.</td>
<td>9.1, 10.1</td>
</tr>
<tr>
<td>45</td>
<td>Demonstrate radio communications.</td>
<td>9.1, 10.1</td>
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<tr>
<td>46</td>
<td>Demonstrate the ability to identify and correct critical read-back and hear-back errors.</td>
<td>9.3, 9.5, 10.3, 10.5</td>
</tr>
<tr>
<td>47</td>
<td>Respond to discrete emergency codes.</td>
<td>9.3, 9.5, 10.3, 10.5</td>
</tr>
<tr>
<td>48</td>
<td>Role-play unusual situations (e.g., inflight emergency, hijacking, communication failure, tower interruption [ATC Zero]) for ATC.</td>
<td>9.1, 10.1</td>
</tr>
<tr>
<td>49</td>
<td>Explain approach plates and airport diagrams.</td>
<td>9.5, 10.5</td>
</tr>
<tr>
<td>50</td>
<td>Describe clearances, using Standard Instrument Departure (SID) procedures, Standard Terminal Arrival Routes (STAR), and Preferential Departure Routes (PDR).</td>
<td>9.3, 9.5, 10.3, 10.5</td>
</tr>
<tr>
<td>51</td>
<td>Apply ATC terms associated with charts and publications.</td>
<td>9.5, 10.5</td>
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<tr>
<td>52</td>
<td>Identify the types and categories of aircraft, their names, and identifiers.</td>
<td>9.5, 10.5</td>
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<tr>
<td>53</td>
<td>Discuss aircraft separation based on performance characteristics.</td>
<td>9.5, 10.5</td>
</tr>
<tr>
<td>54</td>
<td>Discuss UAS and performance characteristics.</td>
<td>9.5, 10.5</td>
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<tr>
<td></td>
<td>Explain how a controller obtains and amends information from the flight data processing system (FDPS).</td>
<td>English: 9.5, 10.5</td>
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<tr>
<td>56</td>
<td>Explain the purpose and operation of the automatic terminal information service (ATIS).</td>
<td>English: 9.5, 10.5</td>
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<tr>
<td>57</td>
<td>Demonstrate the operation of the ATIS.</td>
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<tr>
<td>58</td>
<td>Issue ATC clearances.</td>
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<tr>
<td>59</td>
<td>Explain the differences between IFR and VFR flight plans.</td>
<td>English: 9.3, 9.5, 10.3, 10.5</td>
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<tr>
<td>60</td>
<td>Identify the duties of a controller in a control tower.</td>
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<tr>
<td>61</td>
<td>Use standard phraseology in all communications.</td>
<td>English: 9.1, 10.1</td>
</tr>
<tr>
<td>62</td>
<td>Reconstruct runway incursions.</td>
<td>History and Social Science: WG.1, WHI.1, WHII.1</td>
</tr>
<tr>
<td>63</td>
<td>List components that prevent runway incursions.</td>
<td>English: 9.6, 9.7, 10.6, 10.7</td>
</tr>
<tr>
<td>64</td>
<td>Identify static and dynamic hot spots at a typical airport.</td>
<td>English: 9.5, 10.5</td>
</tr>
<tr>
<td>65</td>
<td>Explain how the local controller sequences and separates aircraft in the traffic pattern.</td>
<td>English: 9.5, 10.5</td>
</tr>
<tr>
<td>66</td>
<td>Apply the runway separation minima for landing and departing aircraft.</td>
<td>English: 9.3, 9.5, 10.3, 10.5</td>
</tr>
<tr>
<td>67</td>
<td>Explain wake turbulence and the rules concerning its implementation.</td>
<td>English: 9.5, 10.5</td>
</tr>
<tr>
<td>68</td>
<td>Explain the weather criteria for observing the instrument landing system (ILS) critical area.</td>
<td>English: 9.5, 10.5</td>
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<tr>
<td>69</td>
<td>Demonstrate knowledge of airport signage and markings.</td>
<td>English: 9.5, 10.5</td>
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<tr>
<td>70</td>
<td>Demonstrate a progressive taxi clearance.</td>
<td>English: 9.5, 10.5</td>
</tr>
<tr>
<td>71</td>
<td>List light gun procedures.</td>
<td>English: 9.5, 9.6, 9.7, 10.5, 10.6, 10.7</td>
</tr>
<tr>
<td>72</td>
<td>Describe the principle of radar as it applies to ATC.</td>
<td>English: 9.3, 9.5, 10.3, 10.5</td>
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<tr>
<td>73</td>
<td>Differentiate between primary and secondary radar.</td>
<td>English: 9.5, 10.5</td>
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<tr>
<td>74</td>
<td>Differentiate between discrete and nondiscrete beacon codes.</td>
<td>English: 9.5, 10.5</td>
</tr>
<tr>
<td>75</td>
<td>Explain the methods of separating aircraft, using radar.</td>
<td>English: 9.5, 10.5</td>
</tr>
</tbody>
</table>
Entrepreneurship Infusion Units

Entrepreneurship Infusion Units (found in the listing of courses) may be used to help students achieve additional, focused competencies and enhance the validated tasks/competencies related to identifying and starting a new business venture. Because the unit is a complement to certain designated courses and is not mandatory, all tasks/competencies are marked “optional.”
Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- College and Work Readiness Assessment (CWRA+)
- Customer Service Examination
- Customer Service Specialist (CSS) Examination
- National Career Readiness Certificate Assessment
- Professional Communications Certification Examination
- Small Unmanned Aircraft System (UAS) Safety Certification Examination
- Workplace Readiness Skills for the Commonwealth Examination

Concentration sequences: A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.

- Aviation Maintenance Technology I (8728/36 weeks, 280 hours)
- Aviation Operations Management (8730/36 weeks, 280 hours)

Career Cluster: Transportation, Distribution and Logistics

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
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<tbody>
<tr>
<td>Transportation Operations</td>
<td>Air Traffic Controller</td>
</tr>
<tr>
<td></td>
<td>Aircraft Mechanic and Service Technician</td>
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<td>Flight Engineer</td>
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<td>Pilot</td>
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<td>Transportation Manager</td>
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<tr>
<td>Transportation Systems/Infrastructure Planning, Management and Regulation</td>
<td>Pilot</td>
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<tr>
<td></td>
<td>Traffic Engineer</td>
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<td></td>
<td>Traffic Technician</td>
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