Radio Communications I

8640 36 weeks / 140 hours

Table of Contents

Acknowledgments ......................................................................................................................................... 1
Course Description........................................................................................................................................ 2
Task Essentials Table .................................................................................................................................... 2
Curriculum Framework ................................................................................................................................. 4
Observing Safety Procedures ........................................................................................................................ 4
Practicing Communication Skills .................................................................................................................. 6
Introducing the Radio Industry ..................................................................................................................... 9
Performing On-Air ...................................................................................................................................... 12
Reporting the News..................................................................................................................................... 16
Managing the Station .................................................................................................................................. 18
Managing Traffic ........................................................................................................................................ 20
Operating in Sales ....................................................................................................................................... 21
Operating in Promotions ............................................................................................................................... 23
Operating in Production ................................................................................................................................. 25
Performing Broadcast Engineering .............................................................................................................. 26
SOL Correlation by Task ............................................................................................................................... 29
Entrepreneurship Infusion Units .................................................................................................................. 31
Appendix: Credentials, Course Sequences, and Career Cluster Information ............................................. 32

Acknowledgments

The following educators served on the curriculum development panel:

Richard Babb, Center for Science and Technology, Chesapeake Public Schools
Trevor R. Clarke, Advanced Career Education Center at Highland Springs, Henrico County Public Schools

Correlations to the Virginia Standards of Learning were reviewed and updated by:
Course Description

Suggested Grade Level: 10 or 11

Students learn practices related to the management and operation of a broadcasting station. Students are introduced to the radio industry, news reporting, and broadcast engineering. Students learn basic electricity and electronics, including all aspects of safety as well as related mathematics.

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.

<table>
<thead>
<tr>
<th>Task Number</th>
<th>8640</th>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Observing Safety Procedures</td>
</tr>
<tr>
<td>39</td>
<td>⊕</td>
<td>Identify the use and maintenance of tools and equipment.</td>
</tr>
<tr>
<td>Task Number</td>
<td>8640</td>
<td>Tasks/Competencies</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>40</td>
<td>+</td>
<td>Maintain a clean and orderly work area.</td>
</tr>
<tr>
<td>41</td>
<td>+</td>
<td>Demonstrate professional conduct.</td>
</tr>
<tr>
<td>42</td>
<td>+</td>
<td>Identify electrical hazards and common safety procedures regarding wiring and cables.</td>
</tr>
<tr>
<td><strong>Practicing Communication Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>+</td>
<td>Read current event information from various media sources.</td>
</tr>
<tr>
<td>44</td>
<td>+</td>
<td>Identify considerations for writing for radio.</td>
</tr>
<tr>
<td>45</td>
<td>+</td>
<td>Write/edit a lead-in (open).</td>
</tr>
<tr>
<td>46</td>
<td>+</td>
<td>Write/edit a news story.</td>
</tr>
<tr>
<td>47</td>
<td>+</td>
<td>Write/edit a commercial.</td>
</tr>
<tr>
<td><strong>Introducing the Radio Industry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>+</td>
<td>Describe the origin of call letters.</td>
</tr>
<tr>
<td>49</td>
<td>+</td>
<td>Describe radio technology innovators.</td>
</tr>
<tr>
<td>50</td>
<td>+</td>
<td>Describe the &quot;Golden Age of Radio&quot; (1935-1945).</td>
</tr>
<tr>
<td>51</td>
<td>+</td>
<td>Describe the rise of frequency modulation (FM) radio.</td>
</tr>
<tr>
<td>52</td>
<td>+</td>
<td>Describe the creation of specific radio formats.</td>
</tr>
<tr>
<td>53</td>
<td>+</td>
<td>Describe modern radio trends (i.e., deregulation, consolidation, and syndication).</td>
</tr>
<tr>
<td>54</td>
<td>+</td>
<td>Investigate music history.</td>
</tr>
<tr>
<td><strong>Performing On-Air</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>+</td>
<td>Identify speaking skill considerations for on-air performance.</td>
</tr>
<tr>
<td>56</td>
<td>+</td>
<td>Operate digital delivery music system.</td>
</tr>
<tr>
<td>57</td>
<td>+</td>
<td>Operate a transmitter according to FCC guidelines.</td>
</tr>
<tr>
<td>58</td>
<td>+</td>
<td>Perform radio breaks.</td>
</tr>
<tr>
<td>59</td>
<td>+</td>
<td>Take meter readings.</td>
</tr>
<tr>
<td>60</td>
<td>+</td>
<td>Identify basic programming formats.</td>
</tr>
<tr>
<td>61</td>
<td>+</td>
<td>Follow programming format.</td>
</tr>
<tr>
<td><strong>Reporting the News</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>+</td>
<td>Identify news-gathering sources.</td>
</tr>
<tr>
<td>63</td>
<td>+</td>
<td>Describe specific styles of news writing.</td>
</tr>
<tr>
<td>64</td>
<td>+</td>
<td>Describe news-announcing techniques.</td>
</tr>
<tr>
<td>65</td>
<td>+</td>
<td>Describe audio production.</td>
</tr>
<tr>
<td>66</td>
<td>+</td>
<td>Describe informational specialties.</td>
</tr>
<tr>
<td>67</td>
<td>+</td>
<td>Describe the editorial responsibility and ethics in news reporting.</td>
</tr>
<tr>
<td><strong>Managing the Station</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>+</td>
<td>Identify the hierarchical structure of the workplace.</td>
</tr>
<tr>
<td>69</td>
<td>+</td>
<td>Develop an understanding of various management responsibilities.</td>
</tr>
<tr>
<td>70</td>
<td>+</td>
<td>Describe different management styles.</td>
</tr>
<tr>
<td>71</td>
<td>+</td>
<td>Explore a systematic approach to management.</td>
</tr>
<tr>
<td><strong>Managing Traffic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>+</td>
<td>Describe the basic program log.</td>
</tr>
<tr>
<td>73</td>
<td>+</td>
<td>Identify the paper trail for a radio program.</td>
</tr>
<tr>
<td><strong>Operating in Sales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Number</td>
<td>8640</td>
<td>Tasks/Competencies</td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>74</td>
<td>☑</td>
<td>Analyze market data for client and customer base.</td>
</tr>
<tr>
<td>75</td>
<td>☑</td>
<td>Make a pitch.</td>
</tr>
<tr>
<td>76</td>
<td>☑</td>
<td>Manage client needs.</td>
</tr>
<tr>
<td>77</td>
<td>☑</td>
<td>Describe the paperwork process in sales.</td>
</tr>
</tbody>
</table>

**Operating in Promotions**

<table>
<thead>
<tr>
<th>Task Number</th>
<th></th>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>☑</td>
<td>Describe the purpose of promotions.</td>
</tr>
<tr>
<td>79</td>
<td>☑</td>
<td>Describe how to design a promotion.</td>
</tr>
<tr>
<td>80</td>
<td>☑</td>
<td>Explain how to budget a promotional campaign.</td>
</tr>
<tr>
<td>81</td>
<td>☑</td>
<td>Explain the use of trade-outs.</td>
</tr>
</tbody>
</table>

**Operating in Production**

<table>
<thead>
<tr>
<th>Task Number</th>
<th></th>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>☑</td>
<td>Describe the program log.</td>
</tr>
<tr>
<td>83</td>
<td>☑</td>
<td>Identify the paper trail in production.</td>
</tr>
</tbody>
</table>

**Performing Broadcast Engineering**

<table>
<thead>
<tr>
<th>Task Number</th>
<th></th>
<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>☑</td>
<td>Describe the early history of radio technology.</td>
</tr>
<tr>
<td>85</td>
<td>☑</td>
<td>Describe basic radio technological terminology.</td>
</tr>
<tr>
<td>86</td>
<td>☑</td>
<td>Explain how radio carrier waves transmit information.</td>
</tr>
<tr>
<td>87</td>
<td>☑</td>
<td>Describe studio layout components.</td>
</tr>
<tr>
<td>88</td>
<td>☑</td>
<td>Describe an automated radio station.</td>
</tr>
<tr>
<td>89</td>
<td>☑</td>
<td>Maintain a transmitter log.</td>
</tr>
</tbody>
</table>

Legend: ☑Essential ☐Non-essential ☐Omitted

---

**Curriculum Framework**

---

**Observing Safety Procedures**

---

**Task Number 39**

**Identify the use and maintenance of tools and equipment.**

**Definition**

Identification should include

- regular cleaning
- proper storage
• routine check of settings and connections
• scheduled backup of data
• utilities and virus-protection software
• common industry practices
• appropriate personal protective equipment (PPE)
• equipment manufacturer recommendations.

Process/Skill Questions

• What can result from failure to follow safety procedures?
• What dangers are associated with improper software usage?
• Why is it important to back up data on a regular basis?
• What is the proper method of cleaning equipment?

Task Number 40

Maintain a clean and orderly work area.

Definition

Maintenance should include

• storing recordings and other media
• filing logs and other Federal Communications Commission (FCC)-required paperwork for efficient retrieval
• compiling and organizing a public inspection file.

Process/Skill Questions

• What types of media need to be stored?
• What FCC documents are required to be filed?
• How do you create an organized filing system?

Task Number 41

Demonstrate professional conduct.

Definition

Demonstration should include

• interacting with others respectfully
• using professional language.

Process/Skill Questions

• What are some examples of interacting with coworkers in a respectful manner?
• What is unprofessional language?

Task Number 42

Identify electrical hazards and common safety procedures regarding wiring and cables.

Definition

Identification should include

- hazards
  - electrical shock
  - equipment damage
  - safety violations
- procedures
  - shutting off power sources before working with electricity
  - using Underwriters Laboratories (UL)-approved equipment and materials
  - wearing PPE
- using proper tools.

Process/Skill Questions

• What are the wattages of different pieces of equipment?
• Why would you create a poster that instructs the radio station personnel on electrical safety? How would you do it?

Practicing Communication Skills

Task Number 43

Read current event information from various media sources.

Definition
Reading should include

- newspapers
- electric technology
- databases
- magazines.

**Process/Skill Questions**

- What specific sources would you consult for current event information?
- How do you evaluate a source for reliability?

**Task Number 44**

**Identify considerations for writing for radio.**

**Definition**

Identification should include using

- facts
- clarity
- conversation
- conciseness
- brevity.

**Process/Skill Questions**

- How would you rewrite a story from a newspaper for the radio?

**Task Number 45**

**Write/edit a lead-in (open).**

**Definition**

Writing/editing should include

- using an element of news
- applying appropriate tone
- piquing listener interest
- choosing a hard or soft lead.

**Process/Skill Questions**
- How can you find effective leads in radio news?
- What makes them effective?
- What are the elements of news?
- What are the different types of tone that you can use?
- Why would you choose a hard lead over a soft one?

**Task Number 46**

**Write/edit a news story.**

**Definition**

Writing/editing should include

- remaining objective
- introducing any audio clip
- avoiding opinions
- adhering to facts
- assuring accuracy.

**Process/Skill Questions**

- What are five characteristics that make an effective news story?
- What is an opinion? How is it different from a fact?

**Task Number 47**

**Write/edit a commercial.**

**Definition**

Writing/editing should include

- product distinctiveness
- interplay between emotion and logic
- concise language
- simplicity
- sound elements
- authenticity
- opening (attention-grabber)
- furthering orientation.

**Process/Skill Questions**
• What are five characteristics that make an effective commercial?
• What is an example of effective interplay between emotion and logic?
• How do you show the distinctiveness of a product?

Introducing the Radio Industry

Task Number 48

Describe the origin of call letters.

Definition

Description should include

• International Radiotelegraph Convention (1912)
• Radio Act of 1927

Process/Skill Questions

• What call letters were assigned to the United States, and how were they designated in 1912?
• What specific additions to practices in the United States were added in 1927?

Task Number 49

Describe radio technology innovators.

Definition

Description should include

• James Clerk Maxwell
• Guglielmo Marconi
• Thomas A. Edison
• Heinrich Hertz
• David Sarnoff
• Lee De Forest.

Process/Skill Questions
• What three innovations were key to the development of radio technology? Describe each one, including the innovator’s role.
• Which innovator would you have liked to have known? Why?

Task Number 50

Describe the "Golden Age of Radio" (1935-1945).

Definition

Description should include

• origins
• names of radio networks
• types of radio productions
• role of Armed Forces Radio
• radio recordings of the era.

Process/Skill Questions

• How would you describe a popular radio program of the era, including the network it was on, how it was heard, how it was produced, the nature of the program, and how it was recorded?
• Why did the Golden Age of Radio die out in 1945?

Task Number 51

Describe the rise of frequency modulation (FM) radio.

Definition

Description should include

• re-centralization of the music industry in Los Angeles
• rise of popularity of the long playing (LP) album
• relationship between the album and the single
• rise of the album-oriented rock (AOR) format.

Process/Skill Questions

• How was AOR influenced by the rise of FM radio?
• Who is responsible for moving the music industry to Los Angeles?
Task Number 52

Describe the creation of specific radio formats.

Definition

Description should include

- evolution of radio programming
- explaining the proliferation of radio formats
- recognizing current radio trends.

Process/Skill Questions

- How was radio programming in the Golden Age similar to programming on today's radio? How was it different?
- How is radio evolving today?

Task Number 53

Describe modern radio trends (i.e., deregulation, consolidation, and syndication).

Definition

Description should include explaining

- deregulation
- consolidation
- syndication
- automation
- democratization
- real-time listener analytics.

Process/Skill Questions

- What are three trends and how is each changing radio?
- How will today's trends affect the future of radio?
- What are the effects of a show running in syndication?
Investigate music history.

Definition

Investigation should include

• technology
• culture
• political changes
• distribution formats for music.

Process/Skill Questions

• What three factors influenced a change in music over time? How?
• How do political changes affect music history?

Performing On-Air

Task Number 55

Identify speaking skill considerations for on-air performance.

Definition

Identification should include

• pitch
• tone
• emphasis
• inflection
• pacing
• annunciation
• pronunciation
• relaxation
• timing
• breathing
• visualization.

Process/Skill Questions
• What are three skills you need to work on to prepare for on-air performance? How can you improve those skills?
• What are some of the most common on-air skills that personalities lack?

**Task Number 56**

**Operate digital delivery music system.**

**Definition**

Operation should include

• choosing music
• ripping or encoding
• downloading
• manipulating playlists
• adding voice tracks
• adding transitions to and from live sources
• carrying live operation of the system
• programming automated operations of the system.

**Process/Skill Questions**

• What are some live sources to which you can add transitions?
• What are the steps in each of the elements of operating a digital music delivery system?

---

**Task Number 57**

**Operate a transmitter according to FCC guidelines.**

**Definition**

Operation should include

• adjusting output power to adhere to FCC power output tolerances
• monitoring and adjusting modulation to remain within tolerances
• assuring the station remains within frequency tolerances
• taking required transmitter readings
• defining *amperes, volts, and watts* and their relationships to each other.

**Process/Skill Questions**
• What are FCC guidelines for frequency, modulation, and effective radiated powers?
• What happens if the transmitter is outside of the tolerance?

Task Number 58

Perform radio breaks.

Definition

Performance should include

• time and weather check
• disc jockey (DJ)
• name
• back sell and front sell
• call letters and frequency
• selling next DJ
• mentioning of sponsors.

Process/Skill Questions

• How do you perform and record a radio break, including all the elements?
• What are the rules for back sell and front sell?
• How often do you mention the call letters and frequency?

Task Number 59

Take meter readings.

Definition

Taking readings should include

• explaining each of the readings
• being aware of tolerances
• being aware of what to do if readings are outside of tolerances.

Process/Skill Questions

• What do you do if the effective radiated power is too high?
• How often do you take meter readings?
Task Number 60

Identify basic programming formats.

Definition

Identification should include

- adult
- contemporary
- country
- news/talk
- religious
- album-oriented
- rock
- nostalgia
- easy listening
- urban.

Process/Skill Questions

- How would you describe each of the basic formats?
- What is the most listened-to format in your local radio market?

Task Number 61

Follow programming format.

Definition

Following format should include

- identifying the station’s format
- following a programming clock
- following the station’s guidelines on requests.

Process/Skill Questions

- How would you create a programming clock for a station? (Include format, policies on requests, and live DJ insertions.)
What happens when the format doesn’t follow the programming clock?

**Reporting the News**

**Task Number 62**

**Identify news-gathering sources.**

**Definition**

Identification should include

- interviews
- observations
- research
- confidential sources.

**Process/Skill Questions**

- What are some ways you can test the credibility of your news source?
- What type of research should you do before discussing or writing a story?

**Task Number 63**

**Describe specific styles of news writing.**

**Definition**

Description should include

- in-depth
- network
- vivid.

**Process/Skill Questions**

- How is in-depth different from vivid? Under what circumstances would you use each style?
- When is the best time to use the network style of writing?
Task Number 64
Describe news-announcing techniques.

Definition
Description should include

- voice
- delivery
- command of language
- timing.

Process/Skill Questions

- How can you work timing into your news announcing delivery?
- What aspects make for a good radio voice? A bad one?

Task Number 65
Describe audio production.

Definition
Description should include

- acquiring audio cuts
- editing audio cuts.

Process/Skill Questions

- What are some different types of audio disciplines?
- Why are audio cuts important in radio?

Task Number 66
Describe informational specialties.

Definition
Description should include

- weather
traffic
sports.

Process/Skill Questions

- How have these areas evolved since the early days of radio?
- What are the possibilities of a specialty job developing into a full-time job?

Task Number 67

Describe the editorial responsibility and ethics in news reporting.

Definition

Description should include

- accuracy
- fairness
- completeness
- honesty
- independence
- accountability.

Process/Skill Questions

- How do the responsibilities and ethics change according to the format of the station?
- What happens when a station shows an obvious bias in the editorial comments/on-air reports?

Managing the Station

Task Number 68

Identify the hierarchical structure of the workplace.

Definition

Identification should include
• station manager
• operations manager
• program director
• sales director
• office manager
• chief engineer
• on-air personality.

Process/Skill Questions

• What are the educational requirements needed for each position in a station?
• How long could a person expect to stay in various positions (if his/her goal is to become station manager)?

Task Number 69

Develop an understanding of various management responsibilities.

Definition

Development should include

• station manager – handles day-to-day operations
• operations manager – coordinates, schedules, promotes on-air programming
• program director – creates and plans broadcast schedule
• sales director – generates revenue by selling to advertisers
• office manager – handles all administrative and financial situations
• chief engineer – handles technical matters
• on-air personality – acts as the voice of the station.

Process/Skill Questions

• How does it affect the other management positions if one person is not doing his/her job?
• What happens to the station if the sales director is not bringing in money?

Task Number 70

Describe different management styles.
Definition

Description should include

- directive
- authoritative
- affiliative
- participative
- pacesetting
- coaching.

Process/Skill Questions

- What are the positive and negative aspects of each management style?
- What styles complement each other? What styles do not work well together?

Task Number 71

Explore a systematic approach to management.

Definition

Exploration should include

- crises
- conflict resolution.

Process/Skill Questions

- What happens when a station is in crisis?
- What are some types of conflict resolution that can be used?

Managing Traffic

Task Number 72

Describe the basic program log.

Definition
Description should include

- layout
- terminology
- programming clocks
- playlist.

Process/Skill Questions

- How often should you enter information into a program log?
- What is the purpose of keeping a log, especially now that most things are done through/on a computer?

Task Number 73

Identify the paper trail for a radio program.

Definition

Identification should include

- from sales
- to traffic
- to production
- on-air to billing.

Process/Skill Questions

- Why is it important to keep a paper trail now that everything is logged through/into a computer?
- How many people should be involved in keeping the paper trail?

Operating in Sales

Task Number 74

Analyze market data for client and customer base.

Definition
Analysis should include working with a sales representative to obtain national agency business.

Process/Skill Questions

- Why is it important to a station to work with a national agency?
- How does an agency gather data to analyze?

Task Number 75

Make a pitch.

Definition

Making a pitch should include

- approaching local retail clients
- following a dos and don’ts list.

Process/Skill Questions

- How important is making a pitch in a salesperson’s job?
- What are some of the dos and don’ts on the list?

Task Number 76

Manage client needs.

Definition

Management should include

- closing a deal
- following up
- renewing.

Process/Skill Questions

- How do you determine a client’s needs?
- What are some of the ways to follow up with a client?

Task Number 77
Describe the paperwork process in sales.

Definition

Description should include

- routing the contract
- preparing the production order
- following billing procedures.

Process/Skill Questions

- What percentage of the job in sales is paperwork processing?
- When should the paperwork be completed - all at one time or as it crosses your desk?

Operating in Promotions

Task Number 78

Describe the purpose of promotions.

Definition

Description should include

- on-air
- off-air
- station
- sales.

Process/Skill Questions

- What are some types of promotions used by radio stations?
- How often do radio stations sponsor promotions?
- How successful are promotions?

Task Number 79

Describe how to design a promotion.
Definition

Description should include

- marketing strategies
- tactics
- promotional tools
- demographics
- budget
- frequency.

Process/Skill Questions

- Why are demographics important when designing a promotion?
- What type of promotional tools are used during the designing of a promotion?
- How big of a role does budget play in designing a promotion?

Task Number 80

Explain how to budget a promotional campaign.

Definition

Explanation should include

- set a goal
- spending categories
- expenses
- set-up cost
- cost to continue.

Process/Skill Questions

- Why is it important to set a goal at the beginning of a promotional campaign?
- How do you determine the spending categories for a promotional campaign?

Task Number 81

Explain the use of trade-outs.

Definition

Explanation should include
• exchange of products and services
• supply and demand.

Process/Skill Questions

• How did trade-outs in the radio industry begin?
• What are the benefits of trade-outs?
• What is the probability that trade-outs will continue in the future?

Operating in Production

Task Number 82
Describe the program log.

Definition

Description should include

• layout
• terminology.

Process/Skill Questions

• How does the program log affect the programming clocks and the playlist?
• Why is layout important to production?

Task Number 83
Identify the paper trail in production.

Definition

Identification should include

• on-air
• billing.

Process/Skill Questions
• Why is it important to keep a paper trail now that everything is logged through/into a computer?
• How many people should be involved in keeping the paper trail?

Performing Broadcast Engineering

Task Number 84

Describe the early history of radio technology.

Definition

Description should include

• wireless telegraphy
• Hertzian waves
• radio transmission system
• wave transmitter
• wireless telephone.

Process/Skill Questions

• What do you think was the most important discovery in the history of radio technology? Why?

Task Number 85

Describe basic radio technological terminology.

Definition

Description should include

• audio chain
• analog and digital
• webcasting
• broadcasting
• satellite broadcasting.
Process/Skill Questions

• Why is it important to know technical terms that are no longer used in radio?

Task Number 86

Explain how radio carrier waves transmit information.

Definition

Explanation should include

• amplitude modulation (AM)
• frequency modulation (FM).

Process/Skill Questions

• What are differences between AM and FM radio stations? What are similarities?
• What is the probability that both will become obsolete?

Task Number 87

Describe studio layout components.

Definition

Description should include

• microphones
• studios
• master control room
• speakers and headphones
• audio mixing device
• clocks and timers
• compressors and limiters
• audio processors
• digital audio workstations
• telephone interfaces.

Process/Skill Questions

• What are the types of microphones used in a radio station?
• How important are clocks and timers to the people working in the master control room?
• What are some of the types of audio mixing devices?
Task Number 88

Describe an automated radio station.

Definition

Description should include

- playing recorded shows at specified times
- playing promotions, public service announcements, station identifications, and music blocks when no live programs are on the air
- playing station ID at the top of every hour as required by the FCC
- keeping a log
- allowing live-streaming from the station
- recording live shows to be repeated on air at a later time.

Process/Skill Questions

- Why are automated radio stations preferred over human personnel?
- What are the advantages of an automated radio station? The disadvantages?
- How can it be beneficial to integrate both automated and traditional types of broadcasting?

Task Number 89

Maintain a transmitter log.

Definition

Maintenance should include

- operating parameters
- power output
- antenna system
- tower light check
- Emergency Alert System (EAS) tests.

Process/Skill Questions

- Why is it necessary to keep a transmitter log?
- What happens to a station if the log is not updated on time?
- Who is responsible for updating the log?
## SOL Correlation by Task

<table>
<thead>
<tr>
<th>Task</th>
<th>Subject Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the use and maintenance of tools and equipment.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Maintain a clean and orderly work area.</td>
<td></td>
</tr>
<tr>
<td>Demonstrate professional conduct.</td>
<td>English: 10.1, 11.1</td>
</tr>
<tr>
<td>Identify electrical hazards and common safety procedures regarding wiring and cables.</td>
<td>Science: PH.4, PH.11</td>
</tr>
<tr>
<td>Read current event information from various media sources.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Identify considerations for writing for radio.</td>
<td>English: 10.2, 11.2</td>
</tr>
<tr>
<td>Write/edit a lead-in (open).</td>
<td>English: 10.2, 10.6, 10.7, 11.2, 11.6, 11.7</td>
</tr>
<tr>
<td>Write/edit a news story.</td>
<td>English: 10.2, 10.6, 10.7, 11.2, 11.6, 11.7</td>
</tr>
<tr>
<td>Write/edit a commercial.</td>
<td>English: 10.2, 10.6, 10.7, 11.2, 11.6, 11.7</td>
</tr>
<tr>
<td>Describe the origin of call letters.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Describe radio technology innovators.</td>
<td>History and Social Science: VUS.14</td>
</tr>
<tr>
<td>Describe the &quot;Golden Age of Radio&quot; (1935-1945).</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Describe the rise of frequency modulation (FM) radio.</td>
<td>History and Social Science: VUS.10, VUS.14</td>
</tr>
<tr>
<td>Describe the creation of specific radio formats.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Describe modern radio trends (i.e., deregulation, consolidation, and syndication).</td>
<td>History and Social Science: VUS.10, VUS.14</td>
</tr>
<tr>
<td>Investigate music history.</td>
<td>History and Social Science: VUS.1, VUS.10, VUS.14</td>
</tr>
<tr>
<td>Activity</td>
<td>English</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Identify speaking skill considerations for on-air performance.</td>
<td>10.1, 10.2, 11.2</td>
</tr>
<tr>
<td>Operate digital delivery music system.</td>
<td></td>
</tr>
<tr>
<td>Operate a transmitter according to FCC guidelines.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Perform radio breaks.</td>
<td></td>
</tr>
<tr>
<td>Take meter readings.</td>
<td></td>
</tr>
<tr>
<td>Identify basic programming formats.</td>
<td></td>
</tr>
<tr>
<td>Follow programming format.</td>
<td>10.5</td>
</tr>
<tr>
<td>Identify news-gathering sources.</td>
<td></td>
</tr>
<tr>
<td>Describe specific styles of news writing.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe news-announcing techniques.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe audio production.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe informational specialties.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe the editorial responsibility and ethics in news reporting.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Identify the hierarchical structure of the workplace.</td>
<td></td>
</tr>
<tr>
<td>Develop an understanding of various management responsibilities.</td>
<td></td>
</tr>
<tr>
<td>Describe different management styles.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Explore a systematic approach to management.</td>
<td></td>
</tr>
<tr>
<td>Describe the basic program log.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Identify the paper trail for a radio program.</td>
<td></td>
</tr>
<tr>
<td>Analyze market data for client and customer base.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Make a pitch.</td>
<td></td>
</tr>
<tr>
<td>Manage client needs.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe the paperwork process in sales.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe the purpose of promotions.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe how to design a promotion.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Explain how to budget a promotional campaign.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Explain the use of trade-outs.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe the program log.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Identify the paper trail in production.</td>
<td></td>
</tr>
<tr>
<td>Describe the early history of radio technology.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe basic radio technological terminology.</td>
<td>10.3, 11.3</td>
</tr>
<tr>
<td>Mathematics: A.10</td>
<td></td>
</tr>
<tr>
<td>Explain the use of trade-outs.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Describe the program log.</td>
<td>10.5, 11.5</td>
</tr>
<tr>
<td>Identify the paper trail in production.</td>
<td></td>
</tr>
<tr>
<td>Describe the early history of radio technology.</td>
<td></td>
</tr>
<tr>
<td>Describe basic radio technological terminology.</td>
<td></td>
</tr>
<tr>
<td>History and Social Science: GOVT.9, GOVT.15</td>
<td></td>
</tr>
<tr>
<td>Mathematics: A.10</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Language</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Explain how radio carrier waves transmit information.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Describe studio layout components.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Describe an automated radio station.</td>
<td>English: 10.5, 11.5</td>
</tr>
<tr>
<td>Maintain a transmitter log.</td>
<td></td>
</tr>
</tbody>
</table>

**Entrepreneurship Infusion Units**

Entrepreneurship Infusion Units 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

- Audio-Radio Production Examination
- Certified Broadcast Technologist (CBT) Examination
- Certified Radio Operator (CRO) Examination
- College and Work Readiness Assessment (CWRA+)
- Customer Service Examination
- Customer Service Specialist (CSS) Examination
- National Career Readiness Certificate Assessment
- Professional Communications 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.

- Radio Communications II (8641/36 weeks, 280 hours)

Career Cluster: Arts, Audio/Video Technology and Communications

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio and Video Technology and Film</td>
<td>Audio and Video Equipment Technician</td>
</tr>
<tr>
<td></td>
<td>Audio-Video Designer, Engineer</td>
</tr>
<tr>
<td>Journalism and Broadcasting</td>
<td>Broadcast Technician</td>
</tr>
<tr>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td></td>
<td>Radio, TV Announcer</td>
</tr>
<tr>
<td></td>
<td>Radio, TV Reporter</td>
</tr>
<tr>
<td>Performing Arts</td>
<td>Technical Director</td>
</tr>
</tbody>
</table>