

Digital/Multimedia & Information Resources Design 11.0801 (2025)

Demonstrate knowledge of the hardware components and software applications, perform installation and updates to multiple operating systems, proprietary, and open-source software. **A1**

- 1 Describe applications and services used to create rich internet applications. **MI-11.0801-7.8**
- 2 Knowledge of installation, integration, and optimization of system components. **MI-IT-CORE-1.1**
- 3 Knowledge of relevant concepts, procedures, software, equipment, and technology applications. **MI-IT-CORE-1.2**
- 4 Knowledge of operating system structures and internals (e.g., process management, directory structure, installed applications). **MI-IT-CORE-1.3**
- 5 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly. **MI-IT-CORE-1.4**
- 6 Knowledge of data backup and recovery. **MI-IT-CORE-3.1**
- 7 Knowledge of industry best practices for service desk. **MI-IT-CORE-6.1**

Identify and compare new IT trends and technologies to build an understanding of their potential influence on industry practices. **A2**

- 1 Use basic Web development skills. **MI-11.0801-10.3**
- 2 Analyze Usability and Accessibility as it pertains to customer needs. **MI-11.0801-4.2**
- 3 Employ Web development knowledge. **MI-11.0801-7.5**
- 4 Describe search engine management (SEM) and search engine optimization (SEO). **MI-11.0801-7.6**
- 5 Explain concepts involved in social networking. **MI-11.0801-7.7**
- 6 Describe applications and services used to create rich internet applications. **MI-11.0801-7.8**
- 7 Compare and contrast clients and servers. **MI-11.0801-9.3**

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- 8 Compare the benefits of internal and external Web hosting.** MI-11.0801-9.5
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- 9 Knowledge of installation, integration, and optimization of system components.** MI-IT-CORE-1.1
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- 10 Knowledge of relevant concepts, procedures, software, equipment, and technology applications.** MI-IT-CORE-1.2
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- 11 Knowledge of operating system structures and internals (e.g., process management, directory structure, installed applications).** MI-IT-CORE-1.3
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- 12 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly.** MI-IT-CORE-1.4
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- 13 Predict how computational innovations that have revolutionized aspects of our culture might evolve.** MI-IT-CORE-2.1
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- 14 Knowledge of industry indicators useful for identifying technology trends.** MI-IT-CORE-2.3
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- 15 Knowledge of data backup and recovery.** MI-IT-CORE-3.1
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- 16 Knowledge of cyber threats and vulnerabilities.** MI-IT-CORE-4.1
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- 17 Knowledge of industry best practices for service desk.** MI-IT-CORE-6.1
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Utilize solutions (version control, data backup, cloud, etc.) to maintain data integrity. A3

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- 1 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly.** MI-IT-CORE-1.4
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- 2 Knowledge of data backup and recovery.** MI-IT-CORE-3.1
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- 3 Evaluate authentication and authorization methods and the risk associated with failure. (such as certification, token, two-factor, multi-factor, biometric).** MI-IT-CORE-5.2
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- 4 Knowledge of industry best practices for service desk.** MI-IT-CORE-6.1
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Recognize and analyze potential IT security threats to develop and maintain security requirements. A4

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- 1 Prioritize tasks to be completed.** MI-11.0801-1.2
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- 2 Employ Web development knowledge.** MI-11.0801-7.5
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- 3 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly.** MI-IT-CORE-1.4
-
- 4 Knowledge of data backup and recovery.** MI-IT-CORE-3.1
-
- 5 Knowledge of cyber threats and vulnerabilities.** MI-IT-CORE-4.1
-

6 Knowledge of authentication, authorization, and access control methods. MI-IT-CORE-5.1

7 Evaluate authentication and authorization methods and the risk associated with failure. (such as certification, token, two-factor, multi-factor, biometric). MI-IT-CORE-5.2

8 Knowledge of computer networking concepts and protocols, and network security methodologies. MI-IT-CORE-5.3

9 Knowledge of industry best practices for service desk. MI-IT-CORE-6.1

Demonstrate knowledge of network integrity protection by incorporating network segregation where appropriate using various network topologies and solutions. A5

1 Knowledge of installation, integration, and optimization of system components. MI-IT-CORE-1.1

2 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly. MI-IT-CORE-1.4

3 Knowledge of data backup and recovery. MI-IT-CORE-3.1

4 Knowledge of cyber threats and vulnerabilities. MI-IT-CORE-4.1

5 Knowledge of computer networking concepts and protocols, and network security methodologies. MI-IT-CORE-5.3

6 Knowledge of industry best practices for service desk. MI-IT-CORE-6.1

7 Develop a test plan for the digital communication product. MI-11.0801-11.1

Identify and describe quality assurance concepts to develop an understanding of the requirements for IT products and services. A6

1 Resolve product problems. MI-11.0801-11.3

2 Convey technical concepts from Web design to a non-technical audience. MI-11.0801-2.1

3 Describe the nature and scope of information management. MI-11.0801-3.1

4 Seek diverse perspectives for the purpose of improving computational artifacts. MI-11.0801-5.5

5 Describe applications and services used to create rich internet applications. MI-11.0801-7.8

6 Describe how bandwidth affects data transmission and on-screen image. MI-11.0801-9.4

7 Knowledge of installation, integration, and optimization of system components. MI-IT-CORE-1.1

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- 8 Knowledge of relevant concepts, procedures, software, equipment, and technology applications.** MI-IT-CORE-1.2

 - 9 Knowledge of operating system structures and internals (e.g., process management, directory structure, installed applications).** MI-IT-CORE-1.3

 - 10 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly.** MI-IT-CORE-1.4

 - 11 Knowledge of data backup and recovery.** MI-IT-CORE-3.1

 - 12 Knowledge of cyber threats and vulnerabilities.** MI-IT-CORE-4.1

 - 13 Knowledge of industry best practices for service desk.** MI-IT-CORE-6.1

 - 14 Skill in managing client relationships, including determining client needs/requirements, managing client expectations, and demonstrating commitment to delivering quality results.** MI-IT-CORE-6.2

 - 15 Ability to produce technical documentation.** MI-IT-CORE-7.1

 - 16 Ability to analyze test data.** MI-IT-CORE-7.2
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Interpret documentation, author, and analyze logs and data to identify issues. A7

- 1 Employ Web administration skills to maintain a Web application.** MI-11.0801-10.5

- 2 Resolve product problems.** MI-11.0801-11.3

- 3 Convey technical concepts from Web design to a non-technical audience.** MI-11.0801-2.1

- 4 Describe the nature and scope of information management.** MI-11.0801-3.1

- 5 Knowledge of operating system structures and internals (e.g., process management, directory structure, installed applications).** MI-IT-CORE-1.3

- 6 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly.** MI-IT-CORE-1.4

- 7 Knowledge of data backup and recovery.** MI-IT-CORE-3.1

- 8 Knowledge of cyber threats and vulnerabilities.** MI-IT-CORE-4.1

- 9 Knowledge of authentication, authorization, and access control methods.** MI-IT-CORE-5.1

- 10 Evaluate authentication and authorization methods and the risk associated with failure. (such as certification, token, two-factor, multi-factor, biometric).** MI-IT-CORE-5.2

11 Knowledge of computer networking concepts and protocols, and network security methodologies. MI-IT-CORE-5.3

12 Knowledge of industry best practices for service desk. MI-IT-CORE-6.1

13 Ability to produce technical documentation. MI-IT-CORE-7.1

14 Ability to analyze test data. MI-IT-CORE-7.2

Demonstrate understanding and application of essential principles of graphic design, including balance, contrast, emphasis, movement, and unity. B1

1 Implement functional design criteria. MI-11.0801-10.1

2 Create product visual design. MI-11.0801-10.2

3 Prepare visual design specifications. MI-11.0801-5.3

4 Create final project plan. MI-11.0801-5.4

5 Produce a digital communication product as member of a development team. MI-11.0801-7.1

6 Employ functional design terms and criteria. MI-11.0801-7.2

7 Produce content for a digital communication product. MI-11.0801-7.3

8 Implement functional design criteria. MI-11.0801-8.1

9 Create product visual design. MI-11.0801-8.2

10 Employ basic motion graphic programming knowledge. MI-11.0801-8.3

11 Create interactive data visualizations using software tools to help others better understand real-world phenomena. MI-11.0801-8.4

12 Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1

13 Explain the beneficial and harmful effects that intellectual property laws can have on innovation. MI-IT-CORE-2.2

14 Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3

Use digital tools to edit and produce elements (2D/3D animations, audio, graphics, special effects, text and video) to enhance digital media projects. B2

1 Implement functional design criteria. MI-11.0801-10.1

2 Create product visual design. MI-11.0801-10.2

3 Create final project plan. MI-11.0801-5.4

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- 4 Produce a digital communication product as member of a development team.** MI-11.0801-7.1

 - 5 Employ functional design terms and criteria.** MI-11.0801-7.2

 - 6 Produce content for a digital communication product.** MI-11.0801-7.3

 - 7 Acquire content for use in a digital communication product.** MI-11.0801-7.4

 - 8 Implement functional design criteria.** MI-11.0801-8.1

 - 9 Create product visual design.** MI-11.0801-8.2

 - 10 Employ basic motion graphic programming knowledge.** MI-11.0801-8.3

 - 11 Create interactive data visualizations using software tools to help others better understand real-world phenomena.** MI-11.0801-8.4

 - 12 Explain the beneficial and harmful effects that intellectual property laws can have on innovation.** MI-IT-CORE-2.2

 - 13 Knowledge of industry indicators useful for identifying technology trends.** MI-IT-CORE-2.3
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Design, develop, implement, and evaluate user-friendly, responsive web pages using HTML, CSS, JavaScript, and other web frameworks. B3

- 1 Implement functional design criteria.** MI-11.0801-10.1

- 2 Create product visual design.** MI-11.0801-10.2

- 3 Use basic Web development skills.** MI-11.0801-10.3

- 4 Employ basic Web programming knowledge.** MI-11.0801-10.4

- 5 Implement a test plan for the digital communication product.** MI-11.0801-11.2

- 6 Resolve product problems.** MI-11.0801-11.3

- 7 Participate in iterative development with clients and team members.** MI-11.0801-4.1

- 8 Define scope of work to meet customer requirements.** MI-11.0801-5.1

- 9 Prepare functional specifications.** MI-11.0801-5.2

- 10 Prepare visual design specifications.** MI-11.0801-5.3

- 11 Create final project plan.** MI-11.0801-5.4

- 12 Produce a digital communication product as member of a development team.** MI-11.0801-7.1

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- 13** Employ functional design terms and criteria. MI-11.0801-7.2
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- 14** Produce content for a digital communication product. MI-11.0801-7.3
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- 15** Acquire content for use in a digital communication product. MI-11.0801-7.4
-
- 16** Employ Web development knowledge. MI-11.0801-7.5
-
- 17** Describe applications and services used to create rich internet applications. MI-11.0801-7.8
-
- 18** Implement functional design criteria. MI-11.0801-8.1
-
- 19** Create product visual design. MI-11.0801-8.2
-
- 20** Employ basic motion graphic programming knowledge. MI-11.0801-8.3
-
- 21** Create interactive data visualizations using software tools to help others better understand real-world phenomena. MI-11.0801-8.4
-
- 22** Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1
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- 23** Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3
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Construct compelling digital stories and storyboards that effectively convey a message or emotion for a targeted audience. B4

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- 1** Create product visual design. MI-11.0801-10.2
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- 2** Participate in iterative development with clients and team members. MI-11.0801-4.1
-
- 3** Define scope of work to meet customer requirements. MI-11.0801-5.1
-
- 4** Prepare functional specifications. MI-11.0801-5.2
-
- 5** Prepare visual design specifications. MI-11.0801-5.3
-
- 6** Create final project plan. MI-11.0801-5.4
-
- 7** Produce a digital communication product as member of a development team. MI-11.0801-7.1
-
- 8** Produce content for a digital communication product. MI-11.0801-7.3
-
- 9** Implement functional design criteria. MI-11.0801-8.1
-
- 10** Create product visual design. MI-11.0801-8.2
-
- 11** Create interactive data visualizations using software tools to help others better understand real-world phenomena. MI-11.0801-8.4
-

12 Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1

13 Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3

Design intuitive user interfaces and ensure positive user experience and interaction on various digital platforms. B5

1 Implement functional design criteria. MI-11.0801-10.1

2 Create product visual design. MI-11.0801-10.2

3 Use basic Web development skills. MI-11.0801-10.3

4 Participate in iterative development with clients and team members. MI-11.0801-4.1

5 Analyze Usability and Accessibility as it pertains to customer needs. MI-11.0801-4.2

6 Define scope of work to meet customer requirements. MI-11.0801-5.1

7 Create final project plan. MI-11.0801-5.4

8 Seek diverse perspectives for the purpose of improving computational artifacts. MI-11.0801-5.5

9 Produce a digital communication product as member of a development team. MI-11.0801-7.1

10 Employ functional design terms and criteria. MI-11.0801-7.2

11 Produce content for a digital communication product. MI-11.0801-7.3

12 Employ Web development knowledge. MI-11.0801-7.5

13 Describe applications and services used to create rich internet applications. MI-11.0801-7.8

14 Implement functional design criteria. MI-11.0801-8.1

15 Create product visual design. MI-11.0801-8.2

16 Employ basic motion graphic programming knowledge. MI-11.0801-8.3

17 Create interactive data visualizations using software tools to help others better understand real-world phenomena. MI-11.0801-8.4

18 Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1

19 Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3

Utilize content management systems and social media platforms to publish, edit, and manage digital content efficiently. B6

1 Prioritize tasks to be completed. MI-11.0801-1.2

2 Use project-management skills to improve workflow and minimize costs. MI-11.0801-1.4

3 Describe the nature and scope of information management. MI-11.0801-3.1

4 Participate in iterative development with clients and team members. MI-11.0801-4.1

5 Define scope of work to meet customer requirements. MI-11.0801-5.1

6 Create final project plan. MI-11.0801-5.4

7 Produce a digital communication product as member of a development team. MI-11.0801-7.1

8 Produce content for a digital communication product. MI-11.0801-7.3

9 Acquire content for use in a digital communication product. MI-11.0801-7.4

10 Employ Web development knowledge. MI-11.0801-7.5

11 Describe search engine management (SEM) and search engine optimization (SEO). MI-11.0801-7.6

12 Explain concepts involved in social networking. MI-11.0801-7.7

13 Describe applications and services used to create rich internet applications. MI-11.0801-7.8

14 Implement functional design criteria. MI-11.0801-8.1

15 Create product visual design. MI-11.0801-8.2

16 Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3

17 Knowledge of industry best practices for service desk. MI-IT-CORE-6.1

Understand the fundamentals of AR and VR technologies and integrate them into animations, simulations, and games where relevant. B7

1 Participate in iterative development with clients and team members. MI-11.0801-4.1

2 Create final project plan. MI-11.0801-5.4

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- 3 Produce a digital communication product as member of a development team.** MI-11.0801-7.1

 - 4 Produce content for a digital communication product.** MI-11.0801-7.3

 - 5 Describe applications and services used to create rich internet applications.** MI-11.0801-7.8

 - 6 Create interactive data visualizations using software tools to help others better understand real-world phenomena.** MI-11.0801-8.4

 - 7 Predict how computational innovations that have revolutionized aspects of our culture might evolve.** MI-IT-CORE-2.1

 - 8 Explain the beneficial and harmful effects that intellectual property laws can have on innovation.** MI-IT-CORE-2.2

 - 9 Knowledge of industry indicators useful for identifying technology trends.** MI-IT-CORE-2.3
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Design and adapt digital media projects to be accessible to a diverse audience, including those with disabilities. C1

- 1 Implement functional design criteria.** MI-11.0801-10.1

- 2 Create product visual design.** MI-11.0801-10.2

- 3 Use basic Web development skills.** MI-11.0801-10.3

- 4 Employ basic Web programming knowledge.** MI-11.0801-10.4

- 5 Convey technical concepts from Web design to a non-technical audience.** MI-11.0801-2.1

- 6 Describe the nature and scope of information management.** MI-11.0801-3.1

- 7 Analyze Usability and Accessibility as it pertains to customer needs.** MI-11.0801-4.2

- 8 Define scope of work to meet customer requirements.** MI-11.0801-5.1

- 9 Create final project plan.** MI-11.0801-5.4

- 10 Seek diverse perspectives for the purpose of improving computational artifacts.** MI-11.0801-5.5

- 11 Produce a digital communication product as member of a development team.** MI-11.0801-7.1

- 12 Produce content for a digital communication product.** MI-11.0801-7.3

- 13 Employ Web development knowledge.** MI-11.0801-7.5

14 Create product visual design. MI-11.0801-8.2

15 Describe how bandwidth affects data transmission and on-screen image. MI-11.0801-9.4

16 Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1

Demonstrate understanding and respect for copyright laws, fair use, and ethical considerations in digital media production. C2

1 Implement functional design criteria. MI-11.0801-10.1

2 Create product visual design. MI-11.0801-10.2

3 Use basic Web development skills. MI-11.0801-10.3

4 Employ basic Web programming knowledge. MI-11.0801-10.4

5 Convey technical concepts from Web design to a non-technical audience. MI-11.0801-2.1

6 Describe the nature and scope of information management. MI-11.0801-3.1

7 Differentiate between copyright and trademarks. MI-11.0801-6.1

8 Describe the function of a non-disclosure agreement (NDA). MI-11.0801-6.2

9 Create product visual design. MI-11.0801-8.2

10 Create interactive data visualizations using software tools to help others better understand real-world phenomena. MI-11.0801-8.4

11 Explain the beneficial and harmful effects that intellectual property laws can have on innovation. MI-IT-CORE-2.2

Organize, plan, and execute digital media projects on time and within budget constraints. C3

1 Develop goals and objectives. MI-11.0801-1.1

2 Prioritize tasks to be completed. MI-11.0801-1.2

3 Develop timelines using time management knowledge and skills. MI-11.0801-1.3

4 Use project-management skills to improve workflow and minimize costs. MI-11.0801-1.4

5 Implement functional design criteria. MI-11.0801-10.1

6 Create product visual design. MI-11.0801-10.2

7 Use basic Web development skills. MI-11.0801-10.3

8 Employ Web administration skills to maintain a Web application. MI-11.0801-10.5

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- 9 Convey technical concepts from Web design to a non-technical audience.** MI-11.0801-2.1
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- 10 Describe the nature and scope of information management.** MI-11.0801-3.1
-
- 11 Participate in iterative development with clients and team members.** MI-11.0801-4.1
-
- 12 Define scope of work to meet customer requirements.** MI-11.0801-5.1
-
- 13 Prepare functional specifications.** MI-11.0801-5.2
-
- 14 Prepare visual design specifications.** MI-11.0801-5.3
-
- 15 Create final project plan.** MI-11.0801-5.4
-
- 16 Produce a digital communication product as member of a development team.** MI-11.0801-7.1
-
- 17 Produce content for a digital communication product.** MI-11.0801-7.3
-
- 18 Employ Web development knowledge.** MI-11.0801-7.5
-
- 19 Explain concepts involved in social networking.** MI-11.0801-7.7
-
- 20 Create product visual design.** MI-11.0801-8.2
-
- 21 Create interactive data visualizations using software tools to help others better understand real-world phenomena.** MI-11.0801-8.4
-
- 22 Skill in managing client relationships, including determining client needs/requirements, managing client expectations, and demonstrating commitment to delivering quality results.** MI-IT-CORE-6.2
-

Effectively collaborate in a team setting, recognizing the importance of each member's role in digital media production. C4

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- 1 Develop goals and objectives.** MI-11.0801-1.1
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- 2 Describe the nature and scope of information management.** MI-11.0801-3.1
-
- 3 Participate in iterative development with clients and team members.** MI-11.0801-4.1
-
- 4 Seek diverse perspectives for the purpose of improving computational artifacts.** MI-11.0801-5.5
-
- 5 Describe the function of a non-disclosure agreement (NDA).** MI-11.0801-6.2
-
- 6 Produce a digital communication product as member of a development team.** MI-11.0801-7.1
-
- 7 Produce content for a digital communication product.** MI-11.0801-7.3
-

Stay updated with the latest trends, tools, and technologies in the digital media industry and adapt to the evolving landscape. C5

- 1 Use basic Web development skills. MI-11.0801-10.3

- 2 Employ Web administration skills to maintain a Web application. MI-11.0801-10.5

- 3 Convey technical concepts from Web design to a non-technical audience. MI-11.0801-2.1

- 4 Describe the nature and scope of information management. MI-11.0801-3.1

- 5 Differentiate between copyright and trademarks. MI-11.0801-6.1

- 6 Employ Web development knowledge. MI-11.0801-7.5

- 7 Explain concepts involved in social networking. MI-11.0801-7.7

- 8 Describe applications and services used to create rich internet applications. MI-11.0801-7.8

- 9 Explain the features and functions of Web browsing software. MI-11.0801-9.1

- 10 Explain the features and functions of Web page design software. MI-11.0801-9.2

- 11 Knowledge of installation, integration, and optimization of system components. MI-IT-CORE-1.1

- 12 Knowledge of relevant concepts, procedures, software, equipment, and technology applications. MI-IT-CORE-1.2

- 13 Knowledge of operating system structures and internals (e.g., process management, directory structure, installed applications). MI-IT-CORE-1.3

- 14 Knowledge of IT system operation, maintenance, and security needed to keep equipment functioning properly. MI-IT-CORE-1.4

- 15 Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1

- 16 Explain the beneficial and harmful effects that intellectual property laws can have on innovation. MI-IT-CORE-2.2

- 17 Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3

- 18 Knowledge of industry best practices for service desk. MI-IT-CORE-6.1

Implement and interpret search engine optimization techniques and utilize analytics

- 1 Employ Web administration skills to maintain a Web application. MI-11.0801-10.5

- 2 Describe the nature and scope of information management. MI-11.0801-3.1

tools to measure digital media impact. C6

- 3 Participate in iterative development with clients and team members. MI-11.0801-4.1**
- 4 Prepare functional specifications. MI-11.0801-5.2**
- 5 Produce a digital communication product as member of a development team. MI-11.0801-7.1**
- 6 Produce content for a digital communication product. MI-11.0801-7.3**
- 7 Employ Web development knowledge. MI-11.0801-7.5**
- 8 Describe search engine management (SEM) and search engine optimization (SEO). MI-11.0801-7.6**
- 9 Explain concepts involved in social networking. MI-11.0801-7.7**
- 10 Describe applications and services used to create rich internet applications. MI-11.0801-7.8**

Use artificial intelligence tools to create, design, and support elements of digital media projects. C7

- 1 Describe the nature and scope of information management. MI-11.0801-3.1**
- 2 Participate in iterative development with clients and team members. MI-11.0801-4.1**
- 3 Produce a digital communication product as member of a development team. MI-11.0801-7.1**
- 4 Produce content for a digital communication product. MI-11.0801-7.3**
- 5 Acquire content for use in a digital communication product. MI-11.0801-7.4**
- 6 Describe applications and services used to create rich internet applications. MI-11.0801-7.8**
- 7 Predict how computational innovations that have revolutionized aspects of our culture might evolve. MI-IT-CORE-2.1**
- 8 Explain the beneficial and harmful effects that intellectual property laws can have on innovation. MI-IT-CORE-2.2**
- 9 Knowledge of industry indicators useful for identifying technology trends. MI-IT-CORE-2.3**