Multi–State Advanced Manufacturing Consortium

US DOL SPONSORED TAACCCT GRANT: TC23767

PRIMARY DEVELOPER: Reggie Fluker – Henry Ford College

RELEASE DATE	12/21/2015
VERSION	v 001
PAGE	1 of 4

Digital Literacy I: Fundamentals
Unit 6 Computer Maintenance and Security
STUDY GUIDE

UNIT OUTLINE

Complete this Unit and you will be able to:

- Properly clean, maintain, and protect external computer-parts and peripherals

- Update Windows 10 (security patches, system fixes, software releases)

- Optimize your computer's internal hard drive or external drives

- Remove unnecessary files to free up disk space

- Adjust your User Account Control security level

- Devise a strong password

- Create, manage, and delete user accounts

- Check the computer's security settings

- Configure settings for Windows Defender

- Update Windows Defender

- Perform a virus scan using Windows Defender

LEARNING OBJECTS

Study the learning objects outlined below. **As you read the pages, also watch the videos and perform the tasks that you learn about by following along with the steps on your notebook computer.**

NOTE: The web pages that you read may include links to further references or other websites. You are not required to follow the links and read   the additional information unless you need further clarification to understand a topic or learn a particular skill.

SYSTEM MAINTENANCE

1. Visit http://www.gcflearnfree.org/computerbasics; read Chapter 14: Computer Safety and Maintenance (pages 1-4, 7)

2. Read www.tenforums.com/tutorials/4807-windows-update-check-install-windows-10-a.html

3. Read "Information", "Note", and "Option One" at:
   a. http://www.tenforums.com/tutorials/8933-optimize-defrag-drives-windows-10-a.html
   b. http://www.tenforums.com/tutorials/3012-disk-cleanup-open-use-windows-10-a.html

4. Complete Lab 1

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VERSION   v 001
PAGE   2 of 4

Digital Literacy I: Fundamentals
Unit 6 Computer Maintenance and Security
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USER ACCOUNT SECURITY

1. Read "The Traditional Password Advice" and "A Trick for Creating Memorable Passwords" at http://www.howtogeek.com/195430/how-to-create-a-strong-password-and-remember-it/

2. Read http://windows.microsoft.com/en-us/windows-vista/tips-for-creating-a-strong-password

3. Read http://www.gcflearnfree.org/internetsafety/2

4. Devise a password, then visit https://www.microsoft.com/en-us/safety/pc-security/default.aspx to test the password strength. Continue to devise and test passwords until strength is "Very Strong" (four green boxes)

5. Read "Information", "Note", and "Option One" at http://www.tenforums.com/tutorials/3577-user-account-control-uac-change-settings-windows-10-a.html

6. Read "Managing User Accounts and Parental Controls" at http://www.gcflearnfree.org/windows10

7. Read the following sections at tenforums.com/tutorials/6917-account-type-change-windows-10-a.html and tenforums.com/tutorials/5464-user-account-delete-windows-10-a.html

    a. Information, Note, and Warning
    b. Option One and Option Two
8. Complete Lab 2

SYSTEM PROTECTION

1. Read the following web pages:

    a. http://www.gcflearnfree.org/computerbasics/14.5
    b. Read the first two paragraphs at https://www.avast.com/en-us/faq.php?article=AVKB22
2. http://www.gcflearnfree.org/internetsafety/3
3. Read the entire article or watch the full video on each page

    a. http://www.dailymotion.com/video/x38o3on
    b. http://www.dailymotion.com/video/x38fov8
    c. http://www.howtogeek.com/220232/how-to-use-the-built-in-windows-defender-antivirus-on-windows-10/
4. Complete Lab 3

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RELEASE DATE 12/21/2015

VERSION v 001

PAGE 3 of 4

Digital Literacy I: Fundamentals
Unit 6 Computer Maintenance and Security
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UNIT EXAM

1. In preparation for the Exam, critically-think each topic in the Unit Outline:

    a. Are you confident in your knowledge about each item?

    b. Challenge yourself to summarize key points, concepts, or skills about each topic

    c. Could you perform all lab procedures without using references?

2. Review the list of Additional Resources; study topics as needed

3. Take the Unit Exam (Closed Book)

ADDITIONAL RESOURCES

The following learning objects are optional, but may give further clarification on a topic if needed

- Set Up Accounts: http://windows.microsoft.com/en-za/windows-10/getstarted-set-up-accounts

- Protect Your PC: http://windows.microsoft.com/en-us/windows-10/getstarted-protect-your-pc

- Security Features in Windows 10: http://www.gcflearnfree.org/windows10/10

- How to Keep an Old Computer Running Smoothly
  http://www.gcflearnfree.org/basic-computer-skills/how-to-keep-an-old-computer-running-smoothly

- Updating Windows: http://www.gcflearnfree.org/windows10/10.2

- Creating a Strong Password: https://support.google.com/accounts/answer/32040?hl=en

- How to Add a New User Account in Windows 10
   http://www.tenforums.com/tutorials/5440-user-account-add-windows-10-a.html

- Change Security and Maintenance Settings in Windows 10
  http://windows.microsoft.com/en-us/windows-10/change-security-and-maintenance-settings-in-windows-10

- Automatic Maintenance – Change Settings in Windows 10
  http://www.tenforums.com/tutorials/3090-automatic-maintenance-change-settings-windows-10-a.html

- What to Do If Your Computer Gets a Virus
  http://www.gcflearnfree.org/basic-computer-skills/what-to-do-if-your-computer-gets-a-virus

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PAGE 4 of 4

Digital Literacy I: Fundamentals
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RELEVANCY REMINDER:

M-SAMC resources reflect a shared understanding of grant partners at the time of development. In keeping with our industry and college partner requirements, our products are continuously improved. Updated versions of our work can be found here: http://www.msamc.org/resources.html.