

Course: Carroll: Digital Forensics 1

Cyber Pathways Across Maryland SME Rubric

Reviewer Name:

Date:

This course is offered by Carroll Community College (<https://www.carrollcc.edu/Programs-and-Courses/Credit-Programs/Cybersecurity/>). The goal for this review is to validate that the curriculum is complete, current, and relevant to industry cybersecurity needs. Please use the comments sections for each category to explain your overall impressions, whether positive or negative.

COURSE STRUCTURE AND SYLLABUS	Y	N	N/A
Course description is factually complete and accurate	Y		
Course structure includes major lessons and assignments	Y		
Prerequisite requirements are included and appropriate	Y		
Required facilities and equipment are included and appropriate	Y		
Required course texts are listed	Y		
Appropriate supplementary materials and resources are provided	Y		
Course organization and design is clear, coherent, and appropriately structured	Y		
Concepts and skills build logically, with appropriate transitions between course sections	Y		
Learning outcomes are clearly stated, measurable, and appropriate for the level of the course	Y		
Learning outcomes emphasize application of knowledge and skills	Y		

Comments about the course structure and syllabus:

Summarize your impressions of the syllabus and course structure including errors, suggestions for revisions, or gaps in the curriculum in regard to industry standards and needs:

The Course Structure outlined very well. I am very impressed.

The In the Read ME First document the Cyber Security Diagram is missing and it is missioned that (it will be provided later).

In the Read ME First document is listing Network Security as prerequisite course but the number is missing and listed as CPAM[XXX].

In the Syllabus under Part 5: College Policies and Resources

The following items are listed but empty:

Attendance

Academic Integrity

Campus Civility

Resources

Counseling

Veterans

Students with Disabilities

In the Course Syllabus “**Grading Breakdown**” I notice that:

Midterm Exam = 100 points

Final Exam = 100 points

Class Participation = 50 points

Homework and Labs, Additional Quizzes = 200 points

Capstone Project = 100 points

TOTAL = 550 points

I recommend you break the total points for Homework (total 60 points, 10 points for each HW) and Labs (total 610 Points, 10 points for each Lab) since there are 6 Homework and 61 Labs. The Labs are hands-on and time consuming, therefore I recommend to assign it more points in the Grading Breakdown so students will encourage to do it. This is a hands-on Digital Forensics course and Law enforcement expect students to have Hands-on and sometimes Professional Certifications like CHFI “Computer Hacking Forensic Investigator (CHFI)”. Here is my suggested new “Grading Breakdown”:

Class Participation = 100 points

Midterm Exam = 100 points

Final Exam = 100 points

Homework = 60 points (10 points each, 6 Homework)

Labs = 610 points (10 points each, 61 Labs)

Additional Quizzes = 100 points

Capstone Project = 100 points

TOTAL = 1170 points

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LECTURE MATERIALS: INSTRUCTOR SLIDES OR AUDIO/VIDEO PRESENTATIONS	Y	N	N/A
Content is accurate.	Y		
Materials accurately reflect course content.	Y		
Materials are presented in a logical order.	Y		
Materials reflect the major learning points and objectives for the related lesson.	Y		

<p>Comments about the instructor slides or video presentations: Summarize your impressions of the instructor slides including errors or suggestions for revisions:</p> <p>NA</p> <p>There are no powerpoint slides available in the provided google folder.</p>
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STUDENT ACTIVITIES: LABS/EXERCISES/HOMEWORK			
Activities as a whole:	Y	N	N/A
<ul style="list-style-type: none"> Contribute to the achievement of the stated course objectives. 	Y		
<ul style="list-style-type: none"> Are comprehensive enough to reinforce course objectives. 	Y		
<ul style="list-style-type: none"> Are current. 	Y		
Individual activities:	Y	N	N/A
<ul style="list-style-type: none"> Have a clearly explained purpose and learning goals. 	Y		
<ul style="list-style-type: none"> Promote the achievement of their stated learning goals. 	Y		
<ul style="list-style-type: none"> Include access to all necessary resources. 	Y		

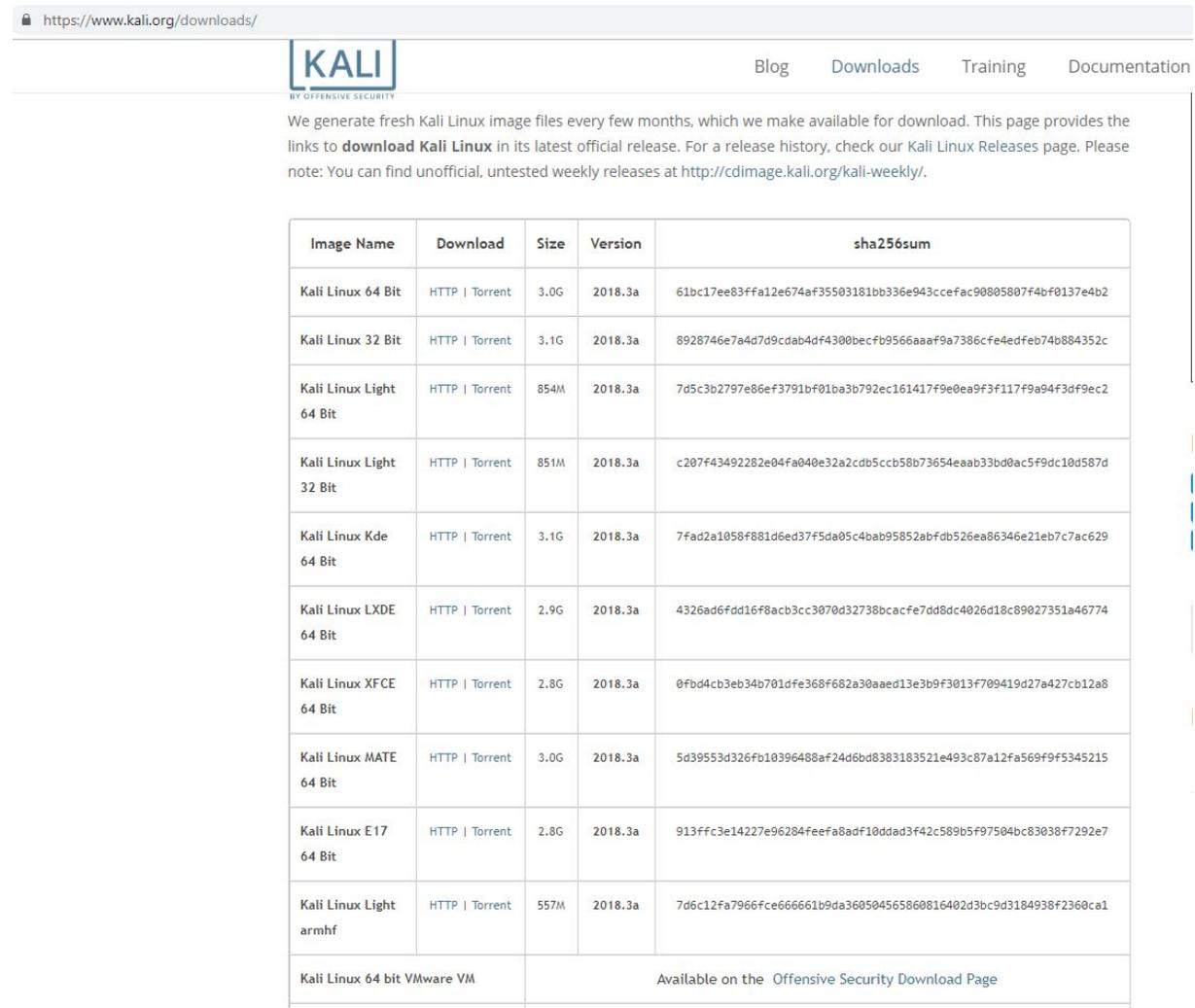
<p>Comments about student activities: Please summarize your impressions of the student activities including errors or suggestions for revisions:</p>

The Homework and Hands-on Labs are coming from the textbook and they are published and very well written, the Homework are mostly research papers, and the Labs are focused on Hands-on. However some labs instructions are not completely clear, here are my notes on Labs:

In Lab 12: Creating and Testing a Linux Live CD Distribution

Step 1. Download Kali Linux from this url: <https://www.kali.org/downloads/>

It did not indicate which version of Kali to download, please see screenshot:



The screenshot shows the Kali Linux Downloads page. At the top, there is a navigation bar with links for Blog, Downloads, Training, and Documentation. Below the navigation bar, there is a paragraph of text explaining that fresh Kali Linux image files are generated every few months and are available for download. The page provides links to download Kali Linux in its latest official release. For a release history, it points to the Kali Linux Releases page. A note mentions that unofficial, untested weekly releases are available at <http://cdimage.kali.org/kali-weekly/>.

Image Name	Download	Size	Version	sha256sum
Kali Linux 64 Bit	HTTP Torrent	3.0G	2018.3a	61bc17ee83ffa12e674af35503181bb336e943ccefac90805807f4b0137e4b2
Kali Linux 32 Bit	HTTP Torrent	3.1G	2018.3a	8928746e7a4d7d9cdab4df4300becfb9566aaaf9a7386cfe4edfeb74b884352c
Kali Linux Light 64 Bit	HTTP Torrent	854M	2018.3a	7d5c3b2797e86ef3791bf01ba3b792ec161417f9e0ea9f3f117f9a94f3df9ec2
Kali Linux Light 32 Bit	HTTP Torrent	851M	2018.3a	c207f43492282e04fa040e32a2cdb5ccb58b73654eaa33bd0ac5f9dc10d587d
Kali Linux Kde 64 Bit	HTTP Torrent	3.1G	2018.3a	7fad2a1058f881d6ed37f5da05c4bab95852abfdb526ea86346e21eb7c7ac629
Kali Linux LXDE 64 Bit	HTTP Torrent	2.9G	2018.3a	4326ad6fdd16f8acb3cc3070d32738bcacfe7dd8dc4026d18c89027351a46774
Kali Linux XFCE 64 Bit	HTTP Torrent	2.8G	2018.3a	0fbd4cb3eb34b701dfe368f682a30aaed13e3b9f3013f709419d27a427cb12a8
Kali Linux MATE 64 Bit	HTTP Torrent	3.0G	2018.3a	5d39553d326fb10396488af24d6bd8383183521e493c87a12fa569f9f5345215
Kali Linux E17 64 Bit	HTTP Torrent	2.8G	2018.3a	913ffc3e14227e96284feefa8adf10ddad3f42c589b5f97504bc83038f7292e7
Kali Linux Light armhf	HTTP Torrent	557M	2018.3a	7d6c12fa7966fce666661b9da360594565860816402d3bc9d3184938f2360ca1
Kali Linux 64 bit VMware VM	Available on the Offensive Security Download Page			

I would edit this step to say:

Step 1. Download Kali Linux 32 or 64 Bits based on your operating system type from this url: <https://www.kali.org/downloads/>

In Lab 26: Install the Hyper-V Role in Windows 10 Pro

Under the step to Install Virtual Box:

The author should have provide the link to where students can download virtualbox:

I will add this step:

Download Virtual Box from the following URL:

<https://www.virtualbox.org/wiki/Downloads>

In Lab 27: Creating a VM in Hyper-v (Ubuntu Installation)

Under running your virtual machine, students instructed to “Refer to the document entitled “Running your Virtual Machine with Hyper-V” from the documentation that is available” but I did not see where in the course they will find this document. If it on the CD-ROM that comes with the textbook then, the instructions must indicate it location.

In Lab 55: Using Facebook Forensics to obtain information from a public Facebook profile

Under **Step 1. Start a Web browser, go to www.facebookforensics.com, and download the trial version of Facebook Forensic Toolkit. Install the software, and then start it.**

The link to download Facebook Forensics Toolkit is not working, I recommend using this link instead.

<https://facebook-forensic-toolkit.software.informer.com/download/>

EXAMS AND ASSESSMENTS	Y	N	N/A
Assessments measure the stated learning objectives.			NA
Assessments are consistent with module activities and resources.			NA
Assessments are varied			NA
Assessments are appropriate to the student work being assessed.			NA

Comments about exams and assessments:

Please summarize your impressions of the assessments and any suggestions including errors or suggestions for revisions:

NA

There are no Exams and Assessments available in the provided google folder. I think the instructor resources online Web Site has that information and I trust it since the publisher is Cengage. I have been using their textbooks and instructor resources for many years for different Cybersecurity and Forensics courses.

Overall Summary:

Based on your expertise and knowledge of the course, please write a summary of your overall impressions, the strengths of the material, and your recommendations for future iterations. Please keep in mind suggestions for revisions or gaps in the curriculum in regard to industry standards and needs. If your course is meant to prepare students for a certification exam, please indicate whether or not you feel the course will do so.

The course overall design and organization is outstanding, the textbook for this course is a very good textbook and published by Cengage (I have been using this publisher for many years) and the syllabus in use is the 5th edition which is relatively new. I recommend using the latest edition when Cengage release it. Also I know Law Enforcement Agencies are looking for students with either experience or Professional certification like Forensics Professional Certifications like CHFI I highly recommend to add to the Syllabus an optional textbook that focus on CHFI Certification by EC-Council, see link below:

<https://cert.eccouncil.org/computer-hacking-forensic-investigator.html>

Here is good book about CHFI:

**Textbook for Computer Hacking Forensic Investigator (CHFI)
<https://iclass.eccouncil.org/product/chfi-physical-courseware/>**

I feel this course is a very good introduction into digital forensics, However, I think there should be some type of prerequisite course to make sure students know how to use a computer hardware and Software. I recommend students to take an Introduction course to Hardware and Software before taking this digital forensics course.

