

# Course: CCBC: Digital Forensics 1

## Cyber Pathways Across Maryland SME Rubric

**Reviewer Name: John Knight**

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This course is offered by Community College of Baltimore County (<http://www.ccbcmd.edu/Programs-and-Courses/Schools-and-Academic-Departments/School-of-Technology-Art-and-Design/Network-Technology-and-Cybersecurity.aspx>). 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.

<b>COURSE STRUCTURE AND SYLLABUS</b>	<b>Y</b>	<b>N</b>	<b>N/A</b>
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		N	
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		N	
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 content structure is presented in a logical progression. The physical structure lacks the inclusion of weekly quizzes and exams on the syllabus other than the Final Exam found in Week 15. Chapter Quiz is addressed in the Graded Activities where it states: After completion of each chapter, a quiz on the material in that chapter will be given. There are no Quiz Banks offered or mention that the adopter would have to create their own.

The Sammons book was not available from normal sources for review but a 30 day rental was available. Comments within are based, in part, on the review of the book also.

PART 2: Learning Outcomes stated in the Sample Syllabus do not compare well to the Learning Objectives presented in Week 1 Lecture PPT. The confusion between Learning Outcomes and Learning Objectives is quite evident.

Part 3: Course Calendar has several omissions and mismatched document names.

Week 1: Lab: Binary and Hexadecimal Numbering System. The second part of the lab indicated was "Getting Familiar with Forensics Tool and Files Signatures". This lab information was not found. There is also a Week 1 Reference document in the files provided but it is not mentioned on the syllabus.

Week 2: Chapter 1 Quiz is not mentioned. "The Lab:..." naming structure does not reflect the documents provided.

Week 3: "The Lab:..." naming structure does not reflect the documents provided. The Lab is titled Fat File System (Part 1) but the Syllabus indicates a lab on Evidence Processing.

Week 4: Chapter 2 Quiz is not mentioned

Week 5: Chapter 3 Quiz is not mentioned

Week 6: Chapter 4 Quiz is not mentioned. The Homework Assignment is missing. The Homework document is provided in the course files but not mentioned in the Syllabus.

Week 7: Case Study. Though not stated this appears to be an in-class assignment as the assigned Case Study Presentations are not scheduled in Week 8. The Case Study Presentation should be slated for Week 8 to allow proper written preparation and practice for proper oral presentation techniques. A handout with a rubric is presented to the students.

Week 8: Write Blockers. This time period does not schedule time for Week 7 Student assignment Case Study.

The Midterm Exam is not shown in the Syllabus. It is recommended that the Midterm Exam be after Week 8 as Week 6-8 are not subjects in the textbook and Week 9 starts with Chapter 5.

Week 9: Windows System Artifacts. This chapter includes the requirement to obtain an image file "Clampet18.aff from AccessData FTK website. This image could be located at the website.

Week 10. Chapter 5 Quiz is not mentioned.. There was a Homework: Steganography assignment found in the provided course files for this chapter but such is not indicated on the Syllabus.

Week 11: Chapter 6 Quiz is not mentioned.. There is also a Homework: Legal Reading assignment provided in course files for this chapter but such is not indicated on the Syllabus. There are links in the Homework document but the document requires addition guidance as to what is expected by the student.

Week 12: Chapter 7 Quiz is not mentioned. Chapters 9-11 of the text are not covered in this course.

Week 13. Chapter 8 Quiz is not mentioned

Week 14. Case Study 2 is assigned along with oral presentations. This is not addressed in Week 15 so this has to be an in-class assignment. The AccessData FTK link to the image "Mantooth.E01 was not found on the AccessData website.

Week 15 - Final Exam.

Note: None of the exams banks are presented so review of applicable quiz and exams are not reviewed. The course adopted would have to create these assessments.

<b>LECTURE MATERIALS: INSTRUCTOR SLIDES OR AUDIO/VIDEO PRESENTATIONS</b>	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		

**Comments about the instructor slides or video presentations:**

Summarize your impressions of the instructor slides including errors or suggestions for revisions:

As pointed out as comments in several of the .pptx files, many of the diagrams and pictures are found in several of the Course Technology presentation on Forensics, A+, and or Network+ powerpoints for subject textbooks.

Many outside reading references were included for student reading and exposure to digital forensic websites.

<b>STUDENT ACTIVITIES: LABS/EXERCISES/HOMEWORK</b>			
Activities as a whole:	Y	N	N/A
<ul style="list-style-type: none"> <li>Contribute to the achievement of the stated course objectives.</li> </ul>	Y		
<ul style="list-style-type: none"> <li>Are comprehensive enough to reinforce course objectives.</li> </ul>	Y BUT SOME ARE WEAK		
<ul style="list-style-type: none"> <li>Are current.</li> </ul>	Y		
Individual activities:	Y	N	N/A
<ul style="list-style-type: none"> <li>Have a clearly explained purpose and learning goals.</li> </ul>		N	
<ul style="list-style-type: none"> <li>Promote the achievement of their stated learning goals.</li> </ul>	Y		
<ul style="list-style-type: none"> <li>Include access to all necessary resources.</li> </ul>		N	

**Comments about student activities:**

Please summarize your impressions of the student activities including errors or suggestions for revisions:

The labs should have an explanation of the expected outcomes and which course objectives are being addressed. This is not found throughout labs or assignments.

All labs contribute to the course objectives. A few labs simply ask the student to provide a definition of terminology found in the chapter.

There are 2 Case Studies. Week 7 and Week 14. It is suggested that this assignment not be a one session assignment so that the student has the opportunity to prepare reports correctly and practice a well laid out forensic presentation to their peers. This would require a schedule change in the course timeline.

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

**Comments about exams and assessments:**

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

NONE PROVIDED FOR REVIEW

**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.

Overall the information presented covers the material found in introduction digital forensic courses. The course work and lab work are to be completed on campus. The proper equipment should be available to the student. The syllabus needs to be reworked to present a clean representation of the course calendar and all the respective weekly labs, readings, and assignments.

This is not a certification course.