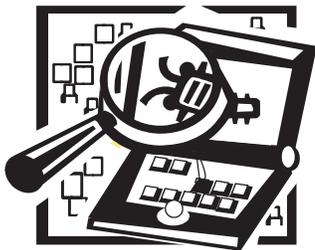




Strategies for Success Advising Guide: Computer Forensics Major



We live in a data-driven age. Digital technology permeates every aspect of our lives. As such, the ability to retrieve information from computers and digital devices is essential.

Computer forensics (sometimes called digital forensics) is a field devoted to the retrieval of data from computers and mobile information devices (such as cellular phones and PDAs). Data retrieval is necessary when information has been lost or hidden.

Computer forensic professionals are employed in every professional area –industry, government, education, healthcare, and law enforcement.

The **Computer Forensics (CF) Associate in Science degree and Certificate programs** at Middlesex focuses on the law enforcement applications of CF and represents a unique collaboration between three Massachusetts community colleges and the University of Massachusetts/Boston. Supported by a Computer Forensics Advanced Technology Education (CFATE) project grant from the National Science Foundation, Middlesex now offers certificate and associate degree programs in Computer Forensics.

Our program enables students to combine knowledge of digital technology with an understanding of the criminal justice system and local, state and federal laws. This program is ideal for students interested in information technology and criminal justice as well as professionals interested in exploring how computer technology can be applied to the investigation of computer-related crimes. The curriculum integrates computer technology and criminal justice elements throughout the required courses.

This advising guide includes information that will help you to explore your academic and career interests, and determine whether the CF major will support your long-term goals.

Exploring Your Options

Before deciding upon a major, you should take some time to explore your interests and develop your long-term academic, career, and personal goals. You should meet with your advisor at least 3 times per semester. Below, is a listing of activities to help you with your self-exploration and identify your interests. These activities are for your first year or during your first 30 credits at MCC.

- ___ During the first few weeks of your first semester at Middlesex, schedule an appointment to meet with your advisor to get acquainted, discuss your future plans and how the Computer Forensics program can help you to achieve your goals.
- ___ Complete the Focus2 online career assessment tool which is located on our website at www.middlesex.mass.edu/careerservices/FOCUS2.htm. After completing FOCUS2, schedule a meeting to discuss your results with a Career Counselor. Call 1-800-818-3434 or visit the Academic, Career and Transfer Centers in Lowell and Bedford to schedule your career counseling appointment.



Strategies for Success

Advising Guide: Computer Forensics Major

___ Review the career biographies which are located on the Career Services website at www.middlesex.mass.edu/CareerServices/voc.biographies.htm

___ If you are thinking about a career in computer forensics, consider whether you have these personality traits and abilities:

■ **Ability to pay attention to detail**

Are you the kind of person who considers life from every angle? Do you look both ways when crossing a one-way street? Do you double check to make sure your spelling is correct even after you have used spell-check? Computer forensics requires careful attention to detail. In order to retrieve lost or missing data from a computer or server, computer forensics professionals must be able to follow a very specific series of steps. Forgetting or overlooking one of those steps can prevent the Computer Forensics Specialist from retrieving the data.

■ **Ability to master complex computer operations**

Computer forensics requires a strong understanding of computer technology and some programming. Have you taken a course in programming? If you have not, you may want to take an introduction to computer science first to see if this field suits you.

■ **Ability to work under pressure and meet deadlines**

Do you miss deadlines when you are doing your school work? Do you always have an excuse when you come home late after curfew? The people who employ computer forensics professionals expect that the data sought will be retrieved in a timely manner. Meeting deadlines is essential for success in this profession.

■ **Ability to write detailed reports**

Are you a capable writer? Can you organize your thoughts clearly into multi-paragraph documents? Computer forensic professionals often deliver the results of their efforts in the form of highly-detailed reports. Sometimes these reports are read by other professionals with a similar technical background and sometimes they are read by people who have limited understanding of advanced technology. It is essential that computer forensic professionals are able to communicate to multiple audiences

■ **Ability to persevere when you run into road blocks**

Do you stick with a problem until it is solved, even when it takes longer than expected? Do you like to solve puzzles and figure things out? If you have the ability to see a problem through, then you would probably make a good computer forensics professional. Computer forensic professionals don't leave projects lying unfinished on their desks; they stick with it until the problem is solved even if that means working longer hours than usual.

■ **Ability to keep learning**

Do you like to learn new things? Do you like to read? Do you like to think about how things can be done better? Computer technology is constantly evolving. Computer forensic professionals need to be able to keep up with technological innovations to order to solve data retrieval problems involving the latest computer hardware.

If you are still unsure whether the Computer Forensics program is the right major for you, take the "Would I Make a Good Computer Forensics Student?" quiz.

cont. next page



Strategies for Success

Advising Guide: Computer Forensics Major

Computer Forensics Self Exploration Activity

Would I Make a Good Computer Forensics Student?

For every statement below that you consider to be true, give yourself 1 point. Then consult the scale at the end.

STATEMENT	TRUE	FALSE
■ I am able to work on my own for long periods of time		
■ I am very patient and I can stick to a problem until I have solved it		
■ I am very organized and methodical		
■ I enjoy working on a computer <i>Note: This statement is particularly important</i>		
■ I am able to explain to people how technology works		
■ I am competent writer who can create multi-page documents that explain processes and procedures		
■ I am the sort of person who others can trust with sensitive information		

All of the above statements apply to computer forensics. Ideally, a potential student in CF should answer “true” to all of the statements.

If your final score is 5 or more then you should consider trying computer forensics. If you score is less than 5, perhaps you should try a different program of study.

At this point you can go one of two ways; The *Career Path* which is committing to your Associates Degree and then looking for a job after graduations or the *Transfer Path* continuing your education and transferring to a Bachelor’s degree granting institute. Your advisor will guide you in the path you choose and help you reach your goal while ensuring that you meet your graduation requirements.

The Career Path

Degrees in CF prepare students for jobs such as CF Analyst, CF Examiner, and CF Specialist in private industry as well as in local, state and federal agencies. The program also helps prepare students for the Certified Computer Examiner (CCE) exams. Students completing this program may choose to immediately enter the field or continue their studies in a four-year college program. There is a growing need for Computer Forensics trained professionals in federal, state and local agencies, law enforcement organizations, and in the private sector. Computer crimes have increased dramatically, creating a need for qualified, trained personnel.

- ___ Work with your advisor to create a Career Plan. As a student who is on the Career Path, your focus should be on building your skill-set and marketing yourself for a job.
- ___ Work with a career counselor who can help you create a resume and cover letter. Consider looking for an internship to enhance your skills and establish some work experience. Call 1-800-818-3434 or visit the Academic, Career, and Transfer Centers in Lowell or Bedford to schedule your appointment.
- ___ Work with a career counselor to identify other opportunities to help you build your resume and better sell yourself to future employers.
- ___ Continue to work with a career counselor who can help you with interview skills and job search techniques. Schedule an appointment with your advisor to follow up on your career plan.

cont. next page



Strategies for Success

Advising Guide: Computer Forensics Major

The Transfer Path

- ___ Work with your advisor to create a Transfer Plan. Identifying and applying to a Bachelor's Degree program will be your focus. You'll need to research academic programs of interests, colleges that offer these programs and be aware of deadlines for admissions, financial aid, and housing deposits (if you are interested on living on campus). The transfer process can be complex. Your advisor and transfer counselor can help you with this process.
- ___ Schedule an appointment to meet with a transfer counselor to learn about the transfer programs that are available to you as an MCC student, such as *MassTransfer*, transfer/articulation agreements with other colleges, and other programs. Also, ask about the Common Application and the benefits of using this form. Call 1-800-818-3434 or visit the Academic, Career, and Transfer Centers in Lowell or Bedford to schedule your appointment.
- ___ If the transfer institution that you are applying to requires that you write a college essay, make an appointment with a tutor in the writing center to help you edit and review your essay. Remember the essay reflects who you are as a student and is also a sample of your writing ability.
- ___ Look for transfer scholarships that may be available.
- ___ Meet with your advisor before your last semester to make sure you have met all your intensive values and curriculum requirements and to ensure that you are ready for graduation.

Computer Forensics Program Outcomes

Graduates of the Computer Forensics program at MCC are prepared to:

- Assess a crime or incident scene to select and apply the most appropriate industry-accepted procedures to the retrieval, recovery and preservation of digital evidence including network data
- Collect, analyze and evaluate evidence data using industry-standard computer forensic software and hardware
- Retrieve and recover files on various types of storage devices, using different operating systems and networks systems
- Prepare written computer-forensics investigation reports that can be admissible in the courts
- Collaborate with others to conduct a proper computer-forensics investigation
- Discuss and apply the rules of evidence and court procedures, and the legal and ethical issues related to the acquisition and analysis of digital evidence
- Describe the functions and interrelationships of the major components of the criminal justice system

AND

- Use knowledge acquired at MCC as a foundation for continued study and/or practical application
- Interpret and analyze information in order to engage in critical thinking and problem solving
- Communicate, use information, and employ technology effectively
- Communicate an understanding of the world from a global perspective
- Demonstrate the capacity for on-going personal and professional development

cont. next page



Strategies for Success

Advising Guide: Computer Forensics Major

MCC Advising Resources:

- Career Services: www.middlesex.mass.edu/CareerServices
- Vocational Biographies: www.middlesex.mass.edu/CareerServices/voc.biographies.htm
- Transfer Services: www.middlesex.mass.edu/Transfer
- MassTransfer: www.mass.edu/masstransfer
- College Board Match Maker: http://collegesearch.collegeboard.com/search/adv_typeofschool.jsp
- Financial Aid: www.middlesex.mass.edu/FinancialAid
- Foundation Scholarships: www.middlesex.mass.edu/foundation/scholarships



Program Contact Information:

Margaret Bleichman, M.A., Program Coordinator • bleichmanm@middlesex.mass.edu • 781-280-3825