
**Criteria For
Measurement
Revised October 2009**

**National Centers of
Academic Excellence
in Information
Assurance Education -
Two Year (CAE2Y)**

**Applicant Submission
from
Hagerstown Community
College**

[Section 1](#)

[Section 2](#)

[Section 3](#)

[Section 4](#)

[Section 5](#)

[Section 6](#)

Submitted by: Margaret Clark Spivey on 02/19/2010 at 01:09:23 PM.

The National Information Assurance Education & Training Centers of Excellence Two Year program is open to nationally or regionally accredited 2-year Community Colleges or technical schools. The mission of the nationally accredited institution must be in the Information Assurance (IA) and/or Cyber education arena. Applications must be submitted electronically via the online application process. Applications are assessed against criteria, listed below, which are intended to measure the depth and maturity of programs of instruction in IA/Cyber education and training. Applicants must clearly demonstrate how they meet each of the six criteria. Minimum requirements for each of the criteria must be met in order to obtain designation. Successful applicants are designated as a National IA Education and Training Center of Excellence for a period of 5 years academic years, after which they must successfully reapply in order to retain the designation. The criteria is reviewed annually and strengthened as appropriate to keep pace with the evolving nature of IA/Cyber. (*Designation of National IA Education and Training Center of Excellence does not carry a commitment of funding from the National Security Agency or from the Department of Homeland Security.*)

Provide a link to the letter that was mailed to the NSA Program Office stating intent to apply for the CAE2Y program, verifying status as a 2-year institution, and providing evidence of national or regional accreditation. (You will be able to add the link just before formal submission after the 'Prepare for review' button is selected.)

<http://http://www.hagerstowncc.edu/academics/divisions/technology-computer/letter->

[intent-cyberwatch](#)

(There is a requirement that a letter of intent on official institution letterhead, signed at an appropriate level (Dean or higher), and a verifying the 2-year status and national or regional accreditation of the school must be mailed to the NSA Program Office prior to the due date for the CAE2Y application.) The mailing address follows:

National Security Agency
Attn: Ms. Christine Nickell
9800 Savage Rd., SAB3, Suite 6744
Ft. Meade, MD 20755-6744

Prerequisite: Prior to submitting an application for the National Centers of Academic Excellence in IA Education Program, IA courseware must be certified under the IA Courseware Evaluation Program

(<http://www.nsa.gov/ia/academia/iace.cfm?MenuID=10.1.1.1>) as meeting the Committee on National Security Systems (CNSS) Training Standards (<http://www.cnss.gov>) and the certification must be current. Specifically, certification for CNSS Training Standard [4011](#) is required, and certification of at least one additional CNSS Training Standard ([4012](#), [4013](#), [4014](#), [4015](#), [4016](#) or subsequent standards) is required.

Verify that your university has met the CAE2Y Program prerequisite by identifying the CNSS Training Standards to which you have mapped and the date of certification for each standard. (You will be able to add/update this information just before formal submission after the 'Prepare for review' button is selected.)

Standard	Date of Certification (mm/dd/yyyy)
4011	06/01/2009
4013 at the E level	06/01/2009

1. IA Partnerships: Extending IA beyond the normal boundaries of the College/Institution and bringing current IA practitioners into the IA Center. Provide evidence of partnerships in IA education with 4-year schools, other Community Colleges, Two-Year Technical schools, K-12 schools, Industry Schools, Government Schools, Federal/State Agencies, Business, Industry or Non profit organizations. Evidence must be in the form of an articulation agreement, Memorandum of Agreement, letters of endorsement, etc. between the schools. Articulation Agreements must be specific to IA programs. Partnership(s) may include: Shared curriculum and resources (IA teaching materials provided); shared faculty (faculty on curriculum committee for more than one institution); and reciprocity of credits.

Overall Point Value: 10 minimum/20 maximum

a. Shared Curriculum (e.g., IA teaching materials provided to technical schools, universities, community colleges, K-12 schools, etc.)

Point Value: Up to 5 points

SUBMISSION:

Hagerstown Community College has been a member of the CyberWatch initiative for three years. During that time period, we have attended the CISSE conference twice, attended numerous workshops (Cell phone forensics, Ethical Hacking, Computer forensics, Wireless Concepts, Case Studies, Remote labs, Security), participated in committee work for the CyberWatch initiative, worked closely with Fred Klappenburger and Elizabeth Harrison in developing programs, and mapped successfully to two NSA standards. During this time

period we have reconstructed our Networking Technology program of study and developed a new program, Computer Forensics. We continue to be successful in establishing articulation partnerships with high schools and technical schools and have established an articulation agreement with Capitol College, which is a four year school. Having spent these development years creating a firm knowledge base, we recognize that we are a young program who will soon provide teaching materials to our partners. Captitol College has recently asked us to participate in an NSF sponsored grant; The purpose of the capacity building portion of this grant is twofold: 1. to acquire the necessary technology to implement quality interactive voice and video technology, in order for us to achieve our primary goal of bringing the instructor to the student and the student to the lab; and 2. to engage community colleges as partners in harnessing the collective expertise from all participating partner institutions in order to broaden student access and strengthen the educational experience, thereby increasing each respective institution's capacity to produce IA professionals.

Please note that as a CyberWatch school we receive materials, such as the CCDC competition DVD, and share these with our students. This acts as a recruitment tool for the IA field. Also, note our webpage for Networking Technology, <http://www.hagerstowncc.edu/academics/divisions/technology-computer/ist/net>. This page displays our CyberWatch affiliation logo, CyberWatch video, CNSS logo, and picture of Margaret Spivey receiving the CNSS certificate from Mr. David Wennergren, Deputy Assistant Secretary of Defense for Information Management and Technology & DoD Deputy Chief Information Officer, Link to bio: <http://www.defenselink.mil/cio-nii/org/>. This press release was shared with 25 entities that are representative of the four state area.

Publications receiving press releases:
Press Release Contacts - 11.09

Andrea Rich - Hagerstown Magazine
arich@publicopinionnews.com

Board of Education
kauffwil@wcboe.k12.md.us

Brunswick Citizen
citizen@mip.net

Chamber of Commerce
donna@hagerstown.org

Chris Copley - Herald Mail Lifestyle Editor
chrisc@herald-mail.com

Community College Times
cctimes@aacc.nche.edu

Debby Heishman - Public Opinion Editor
dheishman@publicopinionnews.com

Ed Waters, Jr. - Frederick News Post Reporter
ewaters@fredericknewspost.com

Erin Harman - USM-H - PR Director

eharman@hagerstown.usmd.edu

Hancock News
news@morganmessenger.com

Herald-Mail Community News - general
community@herald-mail.com

Jake Womer - Herald Mail - Asst. City Editor
jakew@herald-mail.com

Joel Huffer - Herald Mail - Asst. City Editor
joelh@herald-mail.com

Journal Contact - Lifestyle Editor
mbieniek@journal-news.net

Joyce Nowell - Echo Pilot Editor
jnowell@echo-pilot.com

Julie Green - Herald Mail - Lifestyle Reporter
julieg@herald-mail.com

Linda Duffield - Herald Mail - City Editor
lindad@herald-mail.com

Mary Anne Burke - Wash. Co. Arts Council
maburke@myactv.net

Mia Hoover - Herald Mail Assistant
miah@herald-mail.com

MIX 95.1/WIKZ - top 40 in PA
mix91.1@mix95.com

NBC 25
mkraham@nbc25.com

NBC 25
pbickford@nbc25.com

Peggy Hutson - Channel 99
hutsonp@hagerstowncc.edu

Picket News
editor@picketnews.com

Public Opinion - Chambersburg
Community@publicopinionnews.com

The Eagle 106.9
john.austin@123fargo.com

The Record Herald
news@therecordherald.com

Tiffany Arnold - Herald Mail Lifestyle Reporter

tiffany@herald-mail.com

Tony Mulieri - Herald Mail Community Editor
tonym@herald-mail.com

b. Shared Faculty (e.g., Faculty on curriculum development committee for more than one institution)

Point Value: Up to 5 points

SUBMISSION:

HCC faculty worked with CyberWatch faculty, such as Fred Klappenberger from Anne Arundel Community College, in shaping our IA curriculum. We continue to work with CyberWatch faculty and are happy to share work with new institutional members who are trying to develop their own IA curriculum. Our faculty serve on advisory committees for Washington County Public Schools in Hagerstown, Maryland and are involved with skill based competitions at Franklin County Technical School in Chambersburg, PA. Through this involvement we have an opportunity to influence high school curricula and to share best ideas.

Letter indicating involvement at Franklin County Career and Technology Center

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SkillsUS-\.

Franklin County Career & Technology Center 2463 Loop Road, Chambersburg, PA
17202-8895 Phone (717) 263-9033 Fax (717) 263-6568

February, 2010

Steve Shank Hagerstown Community College
11400 Robinwood Drive Hagerstown, MD 21740

Thank you for agreeing to be a judge for Internetworking during our District :5 SkillsUSA Competitive Events at the Franklin County Career & Technology Center on Monday, February 15, 2010. Competitions like these could not take place if we did not have the individuals, such as you, volunteer to assist us with the judging.

You are to report to the Franklin County Career & Technology Center's Conference Room no later than 8:45 A.M. on Monday, February 15, 2010. You will have a brief orientation and then proceed to your judging areas. Please do not report to the program area prior to going to the conference room. After the competition is completed in your area, you are invited to a luncheon provided by the school.

In the event of inclement weather, please listen to the local radio and television stations for cancellation notification. If the competition is cancelled, the make-up date is Monday, February 22, 2010.

If you have any questions or concerns, please contact me at (717) 263-9033 Ext. 225.

Respectfully,

Roberta D. Johnston Vocational Supervisor

Letter and agenda indicating membership in Washington County Public School advisory committee:

STEM Academy (Science, Technology, Engineering, & Mathematics)
Williamsport High School
Advisory Board Meeting

January 26, 2010
8:00 a.m.

AGENDA

Introductions

Environmental Engineering Pathway

- Update on the implementation timeline

Aerospace Engineering Pathway

- Update on the implementation timeline

Engineering Pathway

- New HCC programs in Mechanical Engineering, Industrial Technology and Alternative Energy—Margaret Spivey
 - o What are the possible opportunities for connecting WHS and HCC?

Manufacturing Pathway

- How many completers are expected?
 - o Internship or HCC Class?
- Certification requirements
 - o Should we undertake additional research about the Certified Production Technician?
- Is HCC interested in utilizing WHS's machine shop?

Other

- HCC science and WHS
 - o What are the possible opportunities for connecting WHS and HCC?
- PLTW Recertification Visit
- Identify next meeting date

Reminder of the STEM Academy advisory board meeting at Williamsport High School on Tuesday, January 26, 2010 at 8:00 a.m. in the library media center. The agenda is attached.

For new participants, enter through the main entrance, turn left and proceed to the end of the hall, turn right and the library media center is on the left.

Randy, Please bring a handful of the STEM brochure for new participants.
thanks

Sharon R. Chirgott
CTE & SSL Resource Teacher
Washington County Public Schools
820 Commonwealth Avenue
Hagerstown, MD 21740
301-766-2956

STEM Academy Advisory Board
(Science, Technology, Engineering & Mathematics)
2009-10

Aerospace Engineering Pathway

Business Representatives

Greg Larsen, Business Development Manager
Hagerstown Regional Airport
18434 Showalter Road - Hagerstown, MD 21742
240-313-2768
E-mail: glarsen@wahsco-md.net

Mina M. Davis, Manager, Human Resources
Northrop Grumman Corp. Electronic Systems
California Microwave Systems
18450 Showalter Road - Hagerstown, MD 21742
301-790-3592, Ext. 3312 Fax 301-790-2241
Cell: 240-527-4949
E-mail: mina.m.davis@ngc.com

Gregg Beardsley, Director of Engineering
Sierra Nevada Corporation
18635 Jarkey Drive - Hagerstown, MD 21742
301-665-1294
E-mail: Gregg.beardsley@sncorp.com

Environmental Engineering Pathway

George C. Newman, III - Habitat Restoration Coord.
Chesapeake Wildlife Heritage
P.O. Box 1745 - Easton, MD 21601
1-410-822-5100 Cell: 1-410-310-6270
Fax 1-410-822-4016
E-mail: gnewman@cheswildlife.org

Clark Urich, Consultant
Clarke Michael, Inc. Environmental Consulting
13437 Wellspring Drive - Hagerstown, MD 21740
301-745-5212 Cell: 240-675-7468
E-mail: cmecinc@myactv.net

Phil Kelly
Millennium 3 Energy
17907 Garden Spot Drive - Hagerstown, MD 21740
301-745-4180 Fax:
E-mail: phil.kelly@m3-energy.com

Manufacturing Pathway

Dottie Ridenour
Apparatus Repair & Engineering
90 West Lee Street - Hagerstown, MD 21741-0608
301-739-8285 Fax 301-739-3804
E-mail: djridenour@apprep.com

Denver Weigel, President

Apparatus Repair & Engineering
90 West Lee Street - Hagerstown, MD 21741-0608
301-739-8285 Fax 301-739-3804
E-mail: djweigel@apprep.com

Chris Hott
Central Precision, Inc.
20823 San Mar Road - Boonsboro, MD 21713
301-797-4800 Fax 301-733-4604

Colleen Barnes, Customer Service Manager
CertainTeed Corporation
P.O. Box 290 - Williamsport, MD 21795
301-582-5524 Fax 1-800-229-3658
E-mail: colleen.m.barnes@ct.sgcra.com

Robin Maile, Project Manager
Cumberland Valley Fabricators
9446 Early Drive - Hagerstown, MD 21740
301-791-4524, Ext. 210
E-mail: rkmaile@aol.com

Peter W. O'Boyle, Owner
Custom Machine Shop
840 Bowman Avenue - Hagerstown, MD 21740
301-739-4606 Fax 301-714-1494
E-mail: obent@aol.com

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Manufacturing Pathway - Continued

Daryl W. Mummert
Dressel Welding Supply
924 Sweeney Drive - Hagerstown, MD 21740
301-733-3155 Fax 301-733-4992
E-mail: dmummert@dressell.com

Jay Wolfe, President
DVF Corporation
910 Elkridge Dr., Suite 102 - Hagerstown, MD 21740
301-416-7497 Fax 301-733-4872
E-mail: dvfcorp@erols.com

Kerry Keegan, Branch Manager
Hobart Corporation
10 West Potomac Parkway - Williamsport, MD 21795
301-733-6560 Fax 301-223-7850
E-mail: KRKEEG3@aol.com

Douglas Leather, Facilities Planner
Volvo Powertrain North America
13302 Pennsylvania Ave. - Hagerstown, MD 21742
301-790-5989 Fax 301-790-5984
E-mail: douglas.leather@volvo.com

Doug Henneberger, Gen. Manager Chairman
Milmar Plastics
21315 Leitersburg Pike - Hagerstown, MD 21742
301-739-5730 Fax 301-739-8754
E-mail: Doug@Milmar.com

Jane Dobrzanski, Plant Manager
Transwheel Corporation
10417 Fergusson Ln, Ste 300 - Williamsport, MD 21795
301-223-4855 Fax 301-223-4860

John Schumaker ? (George to call him)
Antietam Metals
10303 Partnership Ct - Williamsport, MD 21795
301-223-9010

Pre-Engineering Pathway

Charles Crist, VP of Engineering Director
Crist Instrument Company, Inc.
111 West First Street - Hagerstown, MD 21740
301-393-8615 Fax 301-393-8618
E-mail: chuck2@cristinstrument.com

Not sure which pathway...

Greg Maciulla
1014 Hamilton Blvd. - Hagerstown, MD 21742
301-602-0247
E-mail: glmaciulla@verizon.net

Education Representatives

Hagerstown Community College
11400 Robinwood Drive - Hagerstown, MD 21742

Dr. Judith Peisen, Division Chair, Sciences,
Mathematics and Engineering
301-790-2800, Ext. 248
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Margaret Spivey, Dir., Technology & Computer Studies
301-790-2800, Ext. 402
E-mail: spiveym@hagerstowncc.edu

Washington County Board of Education
P.O. Box 730, 820 Commonwealth Avenue
Hagerstown, MD 21740-0730

Sharon Chirgott, Career Technology Education &
Student Service Learning Resource Teacher
301-766-2956 Fax 301-766-2957
E-mail: chirgsha@wcboe.k12.md.us

George Phillips, Supervisor of Enrichment &
Career Technology Education Programs
301-766-2954 Fax 301-766-2957

E-mail: phillgeo@wcboe.k12.md.us

Williamsport High School
5 South Clifton Drive - Williamsport, MD 21795
301-766-8423 ~ Fax 301-223-9610

Dr. Henry Bohlander, Principal
E-mail: bohlahen@wcboe.k12.md.us

Teachers:
Shana Gustafson - E-mail: gustasha@wcboe.k12.md.us
Norman Hayter - E-mail: haytenor@wcboe.k12.md.us
Leroy Shook - E-Mail: shookler@wcboe.k12.md.us

Counselor: 301-766-8421
Randy Longnecker
E-mail: longnran@wcboe.k12.md.us

Advisory\STEM Advisory.doc
2/4/10

c. Use of distance education technology and techniques to deliver IA courses. (Distance education includes live/delayed broadcasts, videotapes/CDs, lectures, and web-based IA courses.)

Point Value: Up to 5 points

SUBMISSION:

Distance education includes live/delayed broadcasts, videotapes/CDs, lectures, and web-based IA courses.
The Networking Technology program offers courses via web-based learning and a combination of web/classroom instruction; this is known as a hybrid class.

Course listings are taken from the Fall 2009 Credit Class Schedule (<http://www.hagerstowncc.edu/sites/default/files/documents/09-fall-credit-class-schedule.pdf>) and Spring 2010 Credit Class Schedule (<http://www.hagerstowncc.edu/sites/default/files/documents/10-spring-credit-class-schedule.pdf>).

IST 154, Networking Basics (Web based)

IST-154 Networking Basics
Prerequisite: IST 102. Semesters offered: Fall, Spring. 3 credits. 3 Credits
Fee: \$10.00
29443 IST-154-03 As Arranged S Shank
Web Based
Orientation meeting: Wednesday, 8/26/09, 5:00, in ATC 202. Must have access to the Internet.

IST 155, 156, 255, 256 (CISCO) (Hybrid)

IST-155 Networking I
Prerequisites: IST 150 and IST 151 or A+ certification or equivalent work experience.
Semester offered: Fall. 4 Credits
Fee: \$95.00

29523 IST-155-AN01 T 06:00PM-09:55PM J Drooger
ATC-202 First 7.5 Weeks, Hybrid, Evening
These course combines traditional classroom components with online learning experiences and activities. Students will come to the college campus for the following dates, and work from home for the rest of the semester. Must have access to email and the Internet. 9/1, 9/15, 9/29, 10/13, and one additional Saturday 10/10.

IST-156 Networking II
Prerequisite: IST 155. Semesters offered: Fall. 4 Credits
Fee: \$95.00

29524 IST-156-BN01 T 06:00PM-09:55PM J Drooger
ATC-202 Second 7.5 Weeks, Hybrid, Evening
This course combines traditional classroom components with online learning experiences and activities. Students will come to the college campus for the following dates, and work from home for the rest of the semester. Must have access to email and the Internet. 10/27, 11/10, 11/24, 12/8 and two additional Saturdays 11/21, 12/5.

IST-255 Networking III
Prerequisite: IST 156. Semesters offered: Spring. 4 Credits
Fee: \$95.00

31780 IST-255-AN01 W 06:00PM-09:55PM J Drooger
ATC-202 First 7.5 Weeks, Hybrid, Evening
Hybrid course: This course combines traditional classroom components with online learning experiences and activities. Students will meet on Wednesdays in the classroom with additional assignments posted on Fridays. Class also meets on one Saturday, 2/27/10, 9:00am - 3:00pm, ATC 202. Must have access to email and the Internet.

IST-256 Networking IV
Prerequisite: IST 255. Semesters offered: Spring. 4 Credits
Fee: \$95.00

31783 IST-256-BN01 W 06:00PM-09:55PM J Drooger
ATC-202 Second 7.5 Weeks, Hybrid, Evening
Hybrid course: This course combines traditional classroom components with online learning experiences and activities. Students will meet on Wednesdays in the classroom with additional assignments posted on Fridays. Class also meets on one Saturday, 5/1/10, 9:00am - 3:00pm, ATC 202. Must have access to email and the Internet.

IST 160, Intro to Security Fundamentals (Web based)

IST-160 Introduction to Security Fundamentals
Prerequisite: IST 102 or consent of TCS Division. Semester offered: Spring. 3 Credits

Fee: \$10.00

29434 IST-160-01 As Arranged S Shank

Web Based

Orientation meeting: Wednesday, 8/26/09, 6:00pm, in ATC 200. Must have access to the Internet.

IST 253, TCP/IP (Hybrid)

IST-253 TCP/IP

Prerequisite: IST 154. Semester offered: Fall. 3 Credits

Fee: \$10.00

31329 IST-253-01 M 06:00PM-08:45PM S Shank

ATC-202 Hybrid, Evening

Hybrid course: This course combines traditional classroom components with online learning experiences and activities. This class meets on campus 1/11, 1/25, 2/8, 2/22, 3/8, 3/22, 4/5, 4/19, 5/3; the rest of the weeks will be conducted online. Must have access to email and the Internet.

IST 267, Network Security Hybrid

IST-267 Network Security

Prerequisite: IST 160, and IST 260, and IST 261 or consent of instructor.

Semester offered: Fall. 3 Credits

Fee: \$10.00

31332 IST-267-01 M 06:00PM-08:45PM S Shank

ATC-202 Hybrid, Evening

Hybrid course: This course combines traditional classroom components with online learning experiences and activities. This class meets on campus 1/11, 2/1, 2/15, 3/1, 3/15, 3/29, 4/12, 4/26; the rest of the weeks will be conducted online. Must have access to email and the Internet.

We are looking forward to adopting CyberWatch online IA courses.

d. Evidence the program is providing students with access to IA practitioners (Example: guest lecturers working in IA industry, government, faculty exchange program with industry and/or government, etc.)

Point Value: Up to 5 points

SUBMISSION:

Three of our adjunct instructors work daily in industry. They touch the lives of our students on a weekly basis. They present wonderful role models to IA students as practitioners in the field.

Brenda Hernandez: LinkedIn profile: <http://www.linkedin.com/in/blhernandez> ; currently employed at the Pentagon for Pentagon Renovations and Reconstruction, Washington, DC., Advanced Systems Development.

Peter Medley: Currently employed at the Annapolis Police Department, Annapolis, Maryland and Detective Corporal, Forensic Computer and Cellular Telephone Examiner, assigned to US Secret Service Electronic Crimes Task Force, Baltimore Field Office.

Doug Horton: Functional Area Manager, Systems Engineering Solutions, Homeland Security, US Coast Guard Operations Center, Kearneysville, WV.

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2. IA Student Development: The program provides development opportunities for students that lead to a two year associate's degree or a certificate in an IA discipline.

Overall Point Value: 14 minimum/28 maximum

a. Evidence of IA degrees/areas of study/track or certificates (For example: List of IA Associates degrees and/or certificates in IA curriculum as listed on the institution's website or catalog, list of all IA program courses with their descriptions).

Point Value: 5 points

SUBMISSION:

We offer:

A.A.S. Degree Information Systems Technology, Concentration 1: Computer Forensics

A.A.S. Degree Information Systems Technology, Concentration 4: Networking Technology

Certificate Information Systems Technology, Networking Technology

Please note that the catalog listing that you will find in the URL displays the compatible CyberWatch course next the HCC course name.

- IST 108 = CW 130
- IST 109 = CW 140
- IST 140 = CW 245
- IST 155 = CW 150
- IST 156 = CW 151
- IST 261 = CW 230
- IST 255 = CW 250
- IST 256 = CW 251
- IST 160 = CW 160
- IST 267 = CW 215

Click on link for degree programs, Networking Technology and Computer Forensics from online catalog:

http://www.hagerstowncc.edu/sites/default/files/documents/09_hcc_catalog.pdf

A.A.S. Degree

Information Systems Technology

The Information Systems Technology program is designed to give students the opportunity to choose the area of Information Technology most appealing to them. Students earn the A.A.S. degree in Information Systems Technology specializing in a concentration. This curriculum is for students interested in these concentrations: Computer Forensics, Computer Support, Developer, Networking Technology, and Simulation and Digital Entertainment. Students who select one of these concentrations and wish to transfer to a four-year institution or who are interested in computer science should consult an academic advisor. Completion of the Information Systems Technology degree must be within four years of catalog date due to constantly changing technology. Students who do not complete their degree requirements within four years will fall under the latest catalog. Courses with (CW 150) in the title are HCC courses aligned with Cyberwatch curriculum.

- General Education Requirements* 21-23 Credits
- Arts/Humanities
- Select from approved General Education course list.....3
- Behavioral/Social Sciences
- Select from approved General Education course list.....3
- Biological/Physical Science
- Select from approved General Education course list.....3-4
- English
- ENG 101 English

Composition.....	3
ENG 102 Composition and Literature.....	3
OR	
ENG 112 Technical Writing I.....	(3)
Information Literacy	
IST 102 Introduction to Information Technology.....	3
Mathematics	
MAT 101 or another MAT course from approved list.....	3-4
* Please note Computer Forensics concentration requires specific General Education requirements.	
Program Requirements	
Choose one of the concentrations listed below.	
Concentration 1: Computer Forensics	
The Computer Forensics concentration is designed to provide an introduction to the forensic investigation aspect of computers and related electronic data systems. The program includes an overview of forensic evidence collection methods, investigative techniques, and procedures suitable for persons exploring the computer forensics field as a career option or needing training for promotion.	
General Education Requirements	
Specific Behavioral/Social Sciences General Education Requirement	
SOC 101 Introduction to Sociology.....	3
Program Requirements 38 Credits	
ADJ 101 Introduction to Criminal Justice.....	3
ADJ 203 Criminal Law.....	.3
ADJ 204 Criminal Investigation.....	3
ADJ 205 Criminalistics.....	4
IST 101 Basic Keyboarding.....	.1
IST 108 Microsoft Operating System.....	3
IST 150 PC Tech–Repair & Troubleshooting.....	3
IST 151 PC Tech–Operating Systems.....	3
IST 154 Networking Basics.....	3
IST 166 Computer Forensics I–Principles and Practices.....	3
IST 266 Computer Forensics II–Investigations Practices.....	3
IST 269 Internship I.....	.3
SOC 103 Criminology.....	3
Electives 9 Credits	

Approved courses are listed below. Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements.

BTC 101 Introduction to Biotechnology.....	3
IST 109 UNIX/Linux Operating System.....	3
IST 160 Introduction to Security Fundamentals.....	3
IST 260 MCSA/E Windows Professional.....	3
IST 261 MCSA/E Windows Server.....	3
IST 267 Network Security.....	3
STU 106 Professionalism in the Workplace.....	1
Degree Requirement.....	68-70
<p>This degree must be completed within four years because of constantly changing technology. Students who do not complete within four years will fall under the latest catalog.</p>	
<p>Concentration 2: Computer Support Specialist</p> <p>The Computer Support Specialist concentration provides students with the skills necessary for a career in the computer support field. Courses will concentrate on current packages for word processing, spreadsheets, database management, Internet access, presentation, and web publishing. Two different operating systems will also be covered. Classes are conducted in hands-on labs. Upon completion of the program, the student will be prepared for MOS, A+, and Net+ certification exams. Students are required to keyboard 25 words a minute for two minutes with two errors or less before enrolling in IST courses beyond IST 102. A keyboarding proficiency examination is available for those who wish to test out of this requirement.</p> <p>Program Requirements 39 Credits</p>	
BUS 145 Customer Service.....	1
IST 101 Basic Keyboarding.....	1
IST 103 Presentation Software.....	1
IST 105 Fundamentals of Word Processing.....	3
IST 106 Spreadsheet Software.....	3
IST 107 Database Management.....	3
IST 108 Microsoft Operating System.....	3
IST 109 UNIX/Linux Operating System.....	3
IST 150 PC Tech: Repair and Troubleshooting.....	3
IST 151 PC Tech: Operating Systems.....	3
IST 154 Networking	

Basics.....	3
IST 203 Troubleshooting Software Applications.....	3
IST 204 Help Desk Technology and Services.....	3
IST 269 Internship I.....	..3
WEB 101 Web Design I.....	3
Electives 9 Credits	
Approved courses are listed below. Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements.	
IST 155 Networking I.....	(4)
IST 156 Networking II.....	(4)
IST 160 Introduction to Security Fundamentals.....	(3)
IST 166 Computer Forensics I—Principles and Practices.....	(3)
IST 253 TCP/IP.....	(3)
IST 260 MCSA/E: Windows Professional.....	(2)
IST 261 MCSA/E: Windows Server.....	(3)
IST 262 MCSA/E: Windows Network Infrastructure.....	(2)
IST 264 MCSA/E: Managing a Windows Network.....	(3)
IST 266 Computer Forensics II—Investigations Practices.....	(3)
IST 267 Network Security.....	(3)
STU 106 Professionalism in the Workplace.....	(1)
Degree Requirement.....	69-70
Concentration 3: Developer	
The Developer concentration is for the student interested in a career in computer programming. Major areas of study include programming languages, documentation, structured design principles, problem solving, systems analysis and design, and business ethics. Classes are conducted in hands-on computer labs. Students are required to keyboard 20 words a minute for two minutes with two errors or less before enrolling in IST courses beyond IST 102. A keyboarding proficiency examination is available for those who wish to test out of this requirement.	
Program Requirements 42 Credits	
ACC 101 Principles of Accounting I.....	4
ACC 102 Principles of Accounting II.....	4
BUS 101 Introduction to Business Organization and Management.....	3
IST 101 Basic Keyboarding.....	.1
IST 107 Database	

Management.....	3
IST 108 Microsoft Operating System.....	3
IST 109 UNIX/Linux Operating System.....	3
IST 132 Introduction to C and C++ Programming.....	3
IST 133 Visual Basic.....	3
IST 134 Introduction to JAVA Programming.....	3
IST 173 Database Fundamentals.....	3
IST 202 Systems Design and Analysis.....	3
IST 232 Advanced C++ Programming.....	3
IST 269 Internship I.....	3

Electives 6 Credits

Approved courses are listed below. Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements.

BUS 145 Customer Service.....	(1)
GDT 112 Computer Graphics.....	(3)
IST 103 Presentation Software.....	(1)
IST 105 Fundamentals of Word Processing.....	(3)
IST 106 Spreadsheet Software.....	(3)
IST 150 PC Tech: Repair and Troubleshooting.....	(3)
IST 151 PC Tech: Operating Systems.....	(3)
IST 154 Networking Basics.....	(3)
SDE 102 Multimedia Authoring.....	(3)
STU 106 Professionalism in the Workplace.....	(1)
WEB 101 Web Design I.....	(3)
Degree Requirement.....	69-70

Concentration 4: Networking Technology

The Networking Technology concentration is for the student interested in a career in networking concepts. Major areas of study include network fundamentals, design, management, troubleshooting, and operating systems. Two options are offered: Network Administrator and Network Security. Classes are conducted in hands-on computer labs. This program of study embraces the body of knowledge found in the following computer industry certifications: A+, Net+, Security+, Cisco, and MCSA/E (Microsoft Certified Systems Administrator

and/or Engineering) Certification. Students are required to keyboard 20 words a minute for two minutes with two errors or less before enrolling in IST courses beyond IST 102. A keyboarding proficiency examination is available for those who wish to test out of this requirement.

Hagerstown Community College is a member of CyberWATCH, a consortium of colleges, universities, business and government partners dedicated to increasing the quality and quantity of Information Security/Assurance professionals. HCC has aligned many of its networking technology courses with approved CyberWATCH curriculum. This alignment assures students receive quality information security education that is recognized throughout the state of Maryland and Washington, DC metropolitan area. This alignment is also useful to institutions articulating with HCC by helping them quickly determine which courses are based on a common CyberWATCH model curriculum in Information Security. Each IST course included in this program will show their CyberWATCH common course equivalents immediately after the college's course number and title. i.e., IST 267 Network Security (CW 215) HCC has successfully mapped to the National Security Telecommunications and Information Systems Security (NSTISSI) 4011 and 4013 standards. Courses mapped to NSTISSI-4011 are: IST 102 Introduction to Information Technology, IST 154 Network Fundamentals, IST 160 Introduction to Security Fundamentals, IST 267 Network Security. Courses mapped to NSTISSI-4013 are: IST 160, Introduction to Security Fundamentals and IST 266 Network Security, This advanced standard is intended for System Administrators responsible for the security oversight or management of critical networks.

Program Requirements 36 Credits

IST 101 Basic

Keyboarding..... .1

.1

IST 108 Microsoft Operating System (CW

130).....3

IST 109 UNIX/Linux Operating System (CW 140).....3

IST 140 Fundamentals of Wireless Computing (CW 245).....3

IST 150 PC Tech: Repair and

Troubleshooting.....3

IST 151 PC Tech: Operating

Systems.....3

IST 154 Networking

Basics.....3

IST 155 Networking I (CW

150).....4

IST 156 Networking II (CW

151).....4

IST 260 MCSA/E: Windows

Professional.....3

IST 261 MCSA/E: Windows Server (CW 230).....3

IST 269 Internship I (CW

269).....3

Choose one of the following options (12 credits) to complete this Degree:

Option A: Network Administrator

IST 255 Networking III (CW

250).....4

IST 256 Networking IV (CW

251).....4

IST 264 MSCA/E: Managing a Windows

Network.....3

Option B: Network Security

(Mapping is pending to NSTISSI-4011, National Standard for Information

Systems Security [INFOSEC] Professionals.) The option Network Security mapping is pending to NSTISSI-4011, National Training Standard for Information Systems Security [INFOSEC] Professionals.

IST 160 Introduction to Security Fundamentals (CW 160).....3

IST 253

TCP/IP.....3

IST 254 Network Design and Defense.....3

IST 267 Network Security (CW 215).....3

Degree Requirement.....69-70

Concentration 5: Simulation and Digital Entertainment

The Simulation and Digital Entertainment (SDE) concentration provides students with the skills to design and develop computer games for fun, advertising, education, and simulations. Course concentration will be game design, programming, documentation, structured design principles, problem solving, and business ethics. Classes are conducted in hands-on labs.

Program Requirements 33 Credits

ENG 112 Technical Writing I.....3

GDT 112 Computer Graphics.....3

GDT 114 Graphic Design I.....3

GDT/ART 116 Digital Imaging.....3

SDE 102 Multimedia Authoring.....3

SDE 104 Game Programming I.....3

SDE 104 Introduction to Object-Oriented Programming.....3

SDE 201 Multimedia Algorithms.....3

SDE 203 3D and Advanced Animation.....3

SDE 205 Game Programming II.....3

SDE 207 Multimedia Project Development.....3

SPD 103 Public Speaking.....3

Electives 12 Credits

Electives should be selected in consultation with the Technology and Computer Studies Division to satisfy career goals and/or transfer college requirements. Select 12 elective credits from the following list.

ART 103 Drawing I.....(3)

CAD 152 Computer-Aided Design I.....(3)

ENG 114

Mythology.....

.....(3)	
ENG 116 Basic	
Screenwriting.....	(3)
)	
GDT 220 Digital Video and	
Audio.....	(3)
HIS 102 History of Civilization	
II.....	(3)
IST 132 Introduction to C and C++	
Programming.....	(3)
IST 133 Visual	
Basic.....	
...(3)	
MUS 175 Introduction to Electronic	
Music.....	(3)
SDE 269 Internship	
I.....	(
3)	
WEB 101 Web Design	
I.....	(3)
WEB 110 Web Design	
II.....	(3)
Degree	
Requirement.....	66-
68	

Click on link for Certificate in Network Technology:

http://www.hagerstowncc.edu/sites/default/files/programs/09-tec-istnt-cer_0.pdf

Certificate

Information Systems Technology

Networking Technology

This program is for the student interested in a career in networking concepts. Major concentration will be network fundamentals, design and management, troubleshooting and operating systems. Classes are conducted in hands-on labs. Currently, three national certifications are a part of this option: A+®, CISCO®, MSCA® (Microsoft Certified Systems Administrator) Certification.

Program Requirements 34 Credits

IST 101 Basic	
Keyboarding.....	.1
IST 150 PC Tech: Repair and	
Troubleshooting.....	3
IST 151 PC Tech: Operating	
Systems.....	3
IST 154 Networking	
Basics.....	3
IST 155 CCNA1: Network	
Fundamentals.....	4
IST 156 CCNA2: Router	
Fundamentals.....	4
IST 255 CCNA3: Advanced	
Routers.....	4
IST 256 CCNA4: WAN	

Fundamentals.....	4
IST 260 MCSA/E: Windows Professional.....	2
IST 261 MCSA/E: Windows Server.....	3
IST 264 MCSA/E: Managing a Windows Network.....	3
Electives 7 Credits	
Approved courses are listed below.	
ACC 101 Principles of Accounting I.....	(4)
ACC 102 Principles of Accounting II.....	(4)
IST 103 Presentation Software.....	(1)
IST 109 UNIX/Linux Operating System.....	(3)
IST 120 Web Publishing.....	(1)
IST 132 Introduction to C and C++ Programming.....	(3)
IST 166 Computer Forensics I–Principles and Practices.....	(3)
IST 173 Database Fundamentals.....	(3)
IST 202 Systems Design and Analysis.....	(3)
IST 262 MCSA/E: Windows Network Infrastructure.....	(2)
IST 263 MCSA/E: Windows Active Directory.....	(2)
IST 266 Computer Forensics II–Investigations Practices.....	(3)
IST 269 Internship I.....	(3)
STU 106 Professionalism in the Workplace.....	(1)
OR	
BUS 145 Customer Service Certificate Requirement.....	41

This certificate must be completed within four years because of constantly changing technology. Students who do not complete within four years will fall under the latest catalog.

Link to course descriptions on the HCC website:
[http://www.hagerstowncc.edu/academics/courses/Information%20Systems%20Technology%20\(IST\)](http://www.hagerstowncc.edu/academics/courses/Information%20Systems%20Technology%20(IST))
 Course descriptions could not be displayed here because it exceeded the 32000 character limit.

b. Evidence of Copies of Articulation/Transfer agreements with 4 yr institutions offering a concentration or IA degrees/areas of study/track or certificates.

Point Value: 5 points

SUBMISSION:

HCC adopted the curriculum of the CyberWatch model which has been articulated by Universtiy Maryland University College, Capitol College, Towson University and University of Baltimore. As evidenced by the articulation agreement with Capitol College we are prepared to pursue articulation with the other

schools. Anne Arundel Community College and Prince Georges Community College both adhere to the CyberWatch model and have obtained articulations with these schools.

We have established an articulation agreement with Capitol College. That agreement will be formalized in the near future.

Agreement between Hagerstown Community College and Capitol College for the Articulation of the Associate of Applied Science in Information Systems Technology to the Bachelor of Science in Information Assurance Degree

Purpose

This agreement facilitates the transfer of Hagerstown Community College (HCC) students who graduate with an Associate of Applied Science in Information Systems Technology (AASIST) degree to the Bachelor of Science in Information Assurance (BSIA) degree at Capitol College (CC). This agreement defines the terms of the transfer.

The three goals inherent in the agreement are to:

1. facilitate students' transfer from the AASIST program at HCC to the BSIA program at CC as efficiently as possible.
2. establish a clear set of understandings and expectations for students, both institutions, and their respective degree programs.
3. establish a pathway for HCC's Information Systems Technology (IST) graduates to further their education by earning a bachelor's degree in information assurance as a means to advance their careers in the information assurance profession.

Articulation Agreement

HCC, a community college in Hagerstown, Maryland, and CC agree to offer articulated programs leading to the award of an AAS degree in IST from HCC and a BS degree in Information Assurance (BSIA) from CC. The two institutions further agree that students from HCC, under this articulation agreement, may transfer credits earned for the AASIST degree at HCC toward the BSIA at CC. The following general principles guide the implementation of this Agreement:

1. The program is designed for graduates of the AAS degree in IST at HCC to transfer specific courses in which they have earned the grade of C or higher. The number of courses transferred may not exceed 70 credit hours. The credit hours transferred from HCC contribute to the fulfillment of the 127 credit hours required for baccalaureate completion (BSIA) at CC.
2. The Course Transfer Tables included with this document specify courses and descriptions that will transfer from HCC to CC.
3. CC will consider, on a case-by-case basis, accepting credits from non-direct classroom instruction such as CLEP, AP, and other nationally recognized standardized examination scores. Credit awarded for experiential learning is not recognized by CC without verification through examination.
4. For a smooth transition, students at HCC may start taking courses in the BSIA program at CC while they are completing the AASIST at HCC. Students are advised to complete the AASIST program before officially transferring to CC.
5. If HCC and CC develop a dual enrollment program, this articulation agreement will not prevent students from applying for, participating in, or receiving the benefits of dual enrollment. Those students would then be subject to the dual enrollment program criteria.
6. HCC students who complete the AASIST degree will be given consideration for financial assistance at CC and will be eligible to compete for academic scholarships at CC. Students who complete the AASIST degree with a GPA over 3.0 and subsequently attend CC full-time will be considered for special larger scholarships.
7. At the request of the HCC Director of Technology and Computer Studies, the CC Academic Dean will provide general information as to the academic progress

of HCC student(s) enrolled in the BSIA program. Any feedback must adhere to requirements as established by FERPA (Family Educational Rights and Privacy Act).

8. HCC and CC agree to monitor the performance of this agreement and to revise it as necessary.

9. HCC and CC agree to publicize this program.

10. The Course Transfer Table is subject to annual review for updating and revising as necessary by the appropriate HCC and CC officials without affecting the signed agreement.

11. The agreement may be terminated by either party after 60 days advance written notice to the other. Termination of the agreement will not affect students enrolled in the AASIST program at HCC who are taking courses at CC or who have been accepted into the BSIA program at CC.

12. This agreement becomes effective on the date that the last authorizing party has signed the agreement. The last signer will write the date on the signature page.

12/10/2009

COURSE REQUIREMENTS FOR INFORMATION ASSURANCE

Bachelor of Science (127/130 Credits)

40 credits must be taken at Capitol College

COURSE NUMBER, TITLE and NUMBER of CREDITS COURSE NUMBER, TITLE and NUMBER of CREDITS

Programming and Computer Courses 25 Credits

Transferred Course English/Humanities/Social Sciences 27/28 Credits

Transferred Course

CS-130 Computer Science Fundamentals I (4) FS-100 Freshman Seminar (1)

CS-220 Database Management (3) EN-101 English Communications I (3) ENG-101

CS-230 Computer Science Fundamentals II (3) EN-102 English Communications II (3) ENG-112

CS-320 Database Administration (3) EN-408 Writing Seminar in Tech Research (3)

CT-115 Introduction to Programming (3) HU-331 or HU-332 Arts and Ideas (3)

CT-152 Introduction to Unix (3) IST-109 SS-351 Ethics (3)

NT-100 Comp Architecture & Construction (3) IST-150

Humanities/History/Philosophy Elective (3) Arts/Hum

SE-458 Senior Project (3) Humanities/History/Philosophy Elective (3)

Beh/SocSci

Information Assurance Courses 24 Credits Social Science Elective (3)

IAE-201 Introduction to IA Concepts (3) IST-160 Social Science Elective (3)

IAE-301 Comp Comp and Net Sec Part 1 (3) IST-254

IAE-302 Comp Comp and Net Sec Part 2 (3) IST-267 General Electives 19-21 credits

IAE-315 Secure Sys Admin & Operation (3) IST-102

IAE-325 Secure Data Commun and Crypt (3) IST-101 (1)

IAE-402 Intro to Inc Handling/Mal Code (3) IST-108

IAE-406 Digital Forensics (3) IST-140

IAE-410 Design and Testing (3) IST-151

Mathematics and Sciences Courses 17 Credits IST-253

MA-114 Algebra and Trigonometry (4) Minimum = MAT-102 IST-260

MA-124 Discrete Math (3) * add 2 extra credits from IST-155/156

MA-128 Introduction to Statistics (3)

MA-261 Calculus I (4) TOTAL TRANSFER = 63 total credits

Science Elective (3) Bio/Phys Sci (3 credits)

Telecommunications and Networking Courses 9 Credits

TC-110 Intro to Telecommunications (3) IST-155*

CT-240 Internetworking w/Rters/Switches (3) IST-156*
NT-150 Computer Networking (3) IST-154
Management Courses 6 Credits Schools transferred in from:
BUS-278 Principles of Management (3) T1 = T2 =
BUS-301 Project Management (3) T3 = T4 =
Evaluated by (list below): Date: Comments:

- 1.
- 2.
- 3.

Student First Name: Middle Initial:
Last Name:

T = Transferred Course: Course number should be shown- subscript indicates school ;

W = Waive: Student may take a course of equal or greater number in same subject area as approved by the department;

] = Course or equivalent taken at Capitol College

Unofficial Evaluation
Effective Fall 2009

DRAFT -- Hagerstown Community College - Articulation Agreement with Capitol College
A.A.S. in Information Systems Technology >> B.S. in Information Assurance

Capitol College Hagerstown Community College
CS 130 Computer Science Fundamentals

Introduces students to the discipline, methodologies, and techniques of software development. The emphasis is on developing essential programming skills, an understanding of object-oriented design and good software engineering practices using the Java programming language. Program constructs include selection, looping, arrays, graphical output of data, the use of the standard Java class library, and construction of simple user-defined classes. Programming projects are assigned as part of the homework requirements. Prerequisite: CT-115 or equivalent, MA-110 or MA114. (4-0-4)
CSC 132 Introduction to C++

CSC-132 Introduction to C and C++ Programming This course provides students with a thorough understanding of the basic principles of C and C++. It covers the basic syntax and structure of the language with an emphasis on problem solving techniques. Students create programs using input/output statements; if, while, do while, and for-loop logic structures; arrays, functions, pointers and reference variables, record structures, header files, file I/O, and basic object-oriented programming techniques. Students will be able to recognize and correct common programming errors. Course fee required. Prerequisite: IST 102 and MAT 101. Semester offered: Fall. 3 Credits

CS 220 Database Management

An overview of database systems, with an emphasis on relational databases. Terminology, basic analysis and design using Entity-Relationship diagrams and relational schemas. Database implementation, queries and updates using SQL. Client/server and middleware. An overview of database administration, transactions and concurrency. Data warehouses. Projects, which are assigned as homework, are implemented in Oracle. Prerequisite: A grade of C or better

in CS-130 or CT-115. You may take this course and CS-130 concurrently. (3-0-3)

IST 173 Database Fundamentals

IST-173 Database Fundamentals Introduction to relational database management systems and their applications. Students learn about types of databases, data modeling, designing relational databases, normalization and relationship, and recent trends in database management. Students apply learned concepts using a modern database application to create tables, queries, forms, and reports. Prerequisite: IST 102 or consent of TCS Division. Semester offered: Periodically. 3 Credits

CS 230 Computer Science Fundamentals II

Advance pointers and dynamic memory usage. Concepts of object-oriented design and programming. Includes classes, friend functions, templates, operator overloading, polymorphism, inheritance, exception handling, containers, iterators and the standard template library. Applications involve the use of simple data structures such as stacks, queues, linked lists and binary trees. Recursion, searching and sorting algorithms. The above concepts are implemented through a series of hands-on programming projects, all of which are completed as part of the homework requirements. Prerequisite: CS-130. (3-0-3)

CSC 232 Advanced C++

CSC-232 Advanced C++ Programming This course continues to introduce students to object-oriented programming (OOP) using C++ and Visual C++. It builds on the foundation of IST/CSC 132. Students learn OOP concepts such as classes, friends, and templates and use these to build a program designed to run under a Microsoft Windows environment. Using a hands-on approach, students have the opportunity to design, code, and test object-oriented applications. Additional time outside of class will be necessary to write programs. Course fee required. Prerequisite: IST 132 or CSC 132. Semester offered: Spring. 3 Credits

CT 115 Introduction to Programming

An introductory programming course that teaches computer essentials and programming essentials: components of a computer, the computer as a tool for connecting to networks/internet, digital vs. analog, binary arithmetic, how information is stored, algorithms, branching, looping, functions and arrays. An important aspect of this course is to present students with techniques for translating problem descriptions into computer algorithms, which are then implemented as a computer program. Extensive programming assignments are completed as part of the homework assignments. Acceptance based on placement test score. (3-0-3)

SDE 130 Introduction to Object Oriented Programming

This course is intended to show basic concepts in programming. Using Alice, a utility from Carnegie Mellon University, students will learn file management, programming techniques, program design and implementation, basic Object Oriented Programming (OOP), control statements and structure. Students will be able to recognize and correct common programming errors as well as utilize program problem solving techniques. Course fee required. Co-requisite: IST 102. Semesters offered: Fall, Spring. 3 credits

CT 152 Introduction to Unix

Unix file and operating system. Understanding multi-user and multitasking concepts. Editors, X-windows, Awk, email, Internet commands, shell commands and shell scripts. Projects, which provide practical experience, are completed as part of the homework requirements. (3-0-3)

IST 109 Unix/Linux Operating System

Using RedHat Linux, this course covers the basic concepts, commands, and skills used in the UNIX/Linux operating systems. The shells examined are the C, Bourne, and Korn. Because UNIX/ Linux is a very extensive operating system, this course uses the command line and introduces students to basic elements, such as utilities, electronic mail, Visual Editor, directories, messaging, shell programming, permissions, system security, online help, controlling user processes, printing, sed, and awk. The course is recommended for users with an operating systems background. Course fee required.

Prerequisite: IST 102 or consent of TCS Division. Semesters offered: Fall, Spring. 3 Credits

NT 100 Computer Architecture & Construction

Basic introduction to the design and construction of a current model PC including operating systems and some diagnostic software. Students build, configure, test and troubleshoot PCs in the laboratory. This material can be used as a basis for studying for both the CompTIA A+ exam. (1-4-3)

IST 150 PC Tech: Repair and Troubleshooting

This course prepares students to acquire skills needed to be a successful computer technician and also prepares students for CompTIA's A+ certification exams. In this class students experience techniques used to diagnose hardware problems, configure PC components, and replace defective computer parts.

Students also experience installing mother boards, configuring multiple hard drives, adding peripheral devices, configuring network connectivity, solving basic printer problems, and modifying BIOS settings. Diagnostic software and hardware procedures are included. Course fee required. Prerequisite: IST 102 or consent of TCS Division. Semesters offered: Fall, Spring. 3 Credits

IAE 201 Introduction to IA Concepts

This course covers topics related to administration of network security. Topics include a survey of encryption and authentication algorithms; threats to security; operating system security; IP security; user authentication schemes; web security; email security protocols; intrusion detections; viruses; firewalls; Virtual Private Networks; network management and security policies and procedures. Laboratory projects are assigned as part of the homework requirements. Corequisites: MA-110 or MA-114 and EN-101. (3-0-3) IST 160 Introduction to Security Fundamentals

This is a first course in the fundamentals of information, computer and network security. The course discusses common security issues, identifies methods of assessing systems to identify critical data and presents tools and techniques for securing computers and networks. Course objectives map to the CompTIA Security+ Exam and include general security concepts, communication security, infrastructure security, basics of cryptography and operational/organizational security. Prerequisite: IST 102 or consent of TCS Division. Semester offered: Spring. 3 Credits

IAE 301 Comprehensive Computer and Network Security Part 1

Both IAE-301 and its complement, IAE-302, are designed to provide students with an opportunity to master many of the common and basic IA principles

supporting the CompTIA Security+ certification. IAE-301 centers on the administrative portion of network security. Topics include IA terms and background, introduction to organizational IA policy, risk analysis, backups and contingency planning. Also included are Linux history and commands, administrative tools and snap-ins for Windows Professional versions. (3-0-3).
IST 254 Network Design and Defense

Network Design and Defense along with IST 269 serve as the capstone courses for the Networking Program at Hagerstown Community College. The course solidifies concepts presented in earlier coursework by reinforcing how networks function and then applying these concepts to create business solutions and network security. Units include: concepts review, network attacks, footprinting, port scanning, enumeration, OS vulnerabilities, Web servers, wireless networks, cryptography and protecting networks. Case studies are included in the course discussion. Prerequisite: IST 253.
Semester offered: Spring. 3 Credits
IAE 302 Comprehensive Computer and Network Security Part 2

IAE-302 is the companion course to IAE-301. This course provides students with instruction on IA-related protocols, including IPv4 and IPv6, TCP, UDP, ICMP and other supported protocols related to secure data communications. Intrusion detection and firewall principles supporting the protection of networks in a secure enclave architecture are also discussed. Other topics include infrastructure security requirements, network enclave security architecture, introduction to IEEE 802.11 wireless security history and requirements, principles of authentication and access controls, Kerberos authentication, and the use of LDAP. This course maps to the CompTIA Security+ certification. Corequisite: IAE-301. (3-0-3)
IST 267 Network Security

Network Security is a course that examines the concepts of information, computer and network security. The course is presented at the beginning and intermediate technical level using lecture, lab and discussion format. Course goals include increasing awareness of security issues, defining basic security terms, identifying security infrastructure and codes, and examining policies that may be employed in security management. Course content includes examining a broad range of domains: access control, telecommunications, security management, applications development, cryptography, security architecture, operations security, disaster recovery planning, ethics, and physical security. Prerequisite: IST 160, and IST 260, and IST 261 or consent of instructor. Semester offered: Fall. 3 Credits
MA 114 Algebra and Trigonometry

Algebra: basic operations on real and complex numbers, fractions, exponents and radicals. Determinates. Solution of linear, fractional, quadratic and system equations. Trigonometry: definition and identities, angular measurements, solving triangles, vectors, graphs and logarithms.
Prerequisite: Acceptance based on placement test score. (4-0-4)
MAT 102 Trigonometry

The study of exponential, logarithmic, trigonometric and inverse trigonometric functions, as well as their applications. Topics include: triangles, trigonometric identities and equations, polar coordinates, equations and graphs, the complex plane and DeMoivre's Theorem. Prerequisite: MAT 101 or appropriate score on placement test. Concurrent enrollment in MAT 101 is permissible. Semesters offered: Fall, Spring, Summer. 3 Credits
MA 124 Discrete Math

Logic sets and sequences; algorithms, divisibility and matrices; proof, induction and recursion; counting methods and probability; relations, closure and equivalence relations, graphs and trees; Boolean algebra. Fall-evening only, Spring-daytime only. (3-0-3)

MAT 207 Discrete Mathematics

This is an introduction to discrete mathematics with emphasis on topics relevant to computer science including: sets and logic, number systems and number theory, graph theory, matrices, algorithm design, mathematical induction and recursion. Prerequisite: MAT 101 or MAT 161. Semester offered: Summer. 3 Credits

MA 128 Introduction to Statistics

Probability: definitions, theorems, permutations and combinations. Binomial, hypergeometric, Poisson and normal distributions. Sampling distribution and central limit theorem, estimation and hypothesis testing. Prerequisite: MA-110 or MA-114. Fall-daytime only; Spring-evening only. (3-0-3)

MAT 119 Into to Statistics with Computer Apps

This course is a study of modern statistical analysis enhanced with appropriate technology and is presented for use in business, education, social studies and the natural sciences. Computer software is employed to apply course topics to real world situations. Included in the course are fundamental topics in descriptive statistics, probability, normal and binomial distributions, confidence intervals, hypothesis testing, regression and correlation, chi-square distributions and ANOVA. Not open to students who successfully complete MAT 109. Students will be expected to use online homework and tutorial programs. Prerequisites: MAT 101, MAT 103, MAT 108, MAT 118, MAT 131 or MAT 161 or appropriate score on placement test or consent of math department. Semesters offered: Fall, Spring, Summer. 4 Credits

Science Elective

Bio/Phys Science

TC 110 Intro to Telecommunications

Telecommunications defined and its effects on our daily lives. Structure of the telecommunications industry. Brief history. Basic terminology. Type of analog and digital communications systems. Data communications and networking. Introduction to local area networks, and wide area networks. Microwave and cellular systems. Satellite systems. Internet and its structure, World Wide Web, website technology and terminology. (2-2-3)

IST 155 Networking I

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers in conjunction with the Cisco Networking Academy. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Introductory router/switch device configuration skills are also included. Students must have a personal computer and Internet access to complete online assignments and exams. Class also meets at least one Saturday per session per the instructor's discretion. Course fee required. Prerequisites: IST 150 and IST 151 or A+ certification or equivalent work experience. Semester offered: Fall. 4 Credits

CT 240 Internetworking with Routers and Switches

Configuring routers and switches to build multiprotocol internetworks. OSI reference model, basic LAN and WAN design, dial access services, TCP/IP protocol suites, IP addressing, subnetting, static and dynamic routing, WAN technologies such as HDLC, PPP, Frame Relay, ATM and ISDN. Prerequisites: TC-110 and CT-115 or CS-130 or professor approval. (2-2-3)

IST 156 Networking II

This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. This course is offered in conjunction with the Cisco Networking Academy. Students must have a personal computer and Internet access to complete online assignments and exams. Class also meets at least one Saturday per session per the instructor's discretion. Course fee required. Prerequisite: IST 155.

Semesters offered: Fall. 4

NT 150 Computer Networking

This course is a continuation of IT-110 into the networking with major emphasis on local network equipment, network software and addressing schemes. Students build, configure, test and troubleshoot a network in the laboratory. Routers and switches are included. This material can be used as a basis for studying for both the CompTIA Network + exam. (1-4-3)

IST 154 Networking Basics

Students become familiar with networking terminology and concepts. This course introduces the fundamental building blocks that form a modern network, such as protocols, topologies, hardware, and network operating systems. It then provides coverage of the most important concepts in contemporary networking, such as client/ server architecture, TCP/IP, Ethernet, wireless transmission, and security. A current network operating system is used to examine managing users, groups and devices. Additional networking operating systems are surveyed. Also included are discussions of the OSI model, subnets, troubleshooting, and networking integrity. Course objectives map to the CompTIA Net+ Exam. Successful completion of a DOS or Windows course is strongly recommended. Course fee required. Prerequisite: IST 102. Semesters offered: Fall, Spring. 3 credits. 3 Credits

EN 101 English Communications I

This introductory college-level course focuses on effective oral and written communication skills and the development of analytical abilities through various reading and writing assignments. Students must be able to demonstrate competence in writing mechanics, including grammar, structure and logical content development when writing essays, summaries, and short reports. Rhetorical modes may include description, compare/contrast, personal experience, definition, illustration and process demonstration. Oral presentation skills are developed through the delivery of two speeches on related topics. (3-0-3)

ENG 101 English Composition

This course examines paragraph and theme development with emphasis on syntax, organization, logical thinking, and diction as a basis for writing. Students are given extensive practice in creating and revising their own compositions. Documentation and plagiarism are discussed. Selected readings may be used.

Prerequisite: ENG 100 or appropriate score on placement test. Semesters offered: Fall, Spring, Summer. 3 Credits
EN 102 English Communications II

This sequel to EN101 involves more sophisticated research, reading, writing, and speaking assignments. Emphasis is on summarizing and analyzing short articles, including one in-class analysis. Students will demonstrate competence in research and documentation methods by conducting one major research project during the semester. Prerequisite: EN-101. (3-0-3)
ENG 112 Technical Writing I

This course in the principles and mechanics of technical writing enables both undergraduates and those already employed in business and industry to present technical information in an approved manner. It provides for a general review of English composition as well. Prerequisite: ENG 101. Semesters offered: Fall, Spring, Summer. 3 Credits
Humanities/History/Philosophy Elective #1 Arts/Hum
Humanities/History/Philosophy Elective #2 Beh/Soc Sci
General Electives - choose three from list of five IST 108 Microsoft Operating System

This course provides students with an understanding of both basic and advanced principles of the Windows XP operating system. A brief overview takes students through dynamic menus, task-oriented views, the Help and Support Center, and the system environment. Emphasis is placed upon Computer Management Console disk and file management, optimization for better performance, planning and performing backups, navigation of the system through both the GUI environment and command line, configuration of systems software, improving performance and system support through system utilities and security. Students are introduced to the Registry, introductory troubleshooting and evaluation of system performance are covered. Course fee required. Prerequisite: IST 102 or consent of TCS Division. May be taken concurrently with IST 102. Semesters offered: Fall, Spring. 3 Credits
IST 140 Fundamentals of Wireless Computing

Fundamentals of Wireless Computing is an introductory examination into the world of wireless technology. The course will cover the benefits and uses of wireless technology, offer a framework to navigate through the process of selecting and assembling a wireless solution, and provide technical overviews on various aspects of wireless technology including management issues, solution considerations, devices, networks, applications, and support requirements. Prerequisite: IST 102 or consent of TCS Division. Semester offered: Spring. 3 Credits
IST 151 PC Tech: Operating Systems

This course provides installation, configuration, support and troubleshooting of PC desktop operating systems and preparation for CompTIA's A+ certification exams. Topics include hardware requirements for installation, upgrades, customizing the user environment and memory, installing hardware/software, (including printers), troubleshooting the boot process, and recovery from OS crashes. The fundamentals of introductory networking topics include OSI model, connecting through wireless/wired networks, and TCP/IP protocols, addressing, and troubleshooting tools. Course fee required. Prerequisite: IST 108 or consent of TCS Division. May be taken concurrently with IST 150. Semesters offered: Fall, Spring. 3 Credits
IST 253 TCP/IP

Transmission Control Protocol/Internet Protocol (TCP/IP) defines the broad family of protocols and services that make the Internet possible. The course covers models, protocols, services and standards that govern TCP/IP and that guide its behavior on modern networks. Real-world and interactive examples are offered in addition to hands-on projects to reinforce key concepts and to demonstrate the use of monitoring and managing TCP/ IP in its native environment. Prerequisite: IST 154. Semester offered: Fall. 3 Credits
IST 260 MCSA / E Windows Professional

This course shows students how to set up and support the Microsoft Windows operating system and prepares them for the Microsoft Certified Professional Examination. Students gain experience installing, administering, and troubleshooting the Windows desktop environment. Course fee required. Prerequisite: IST 108, IST 151 or consent of TCS Division. Semester offered: Fall. 3 Credits

c. Articulation agreements with high schools to facilitate awareness and training for faculty/administration/students.

Point Value: 2 points per school / 6 pts maximum

SUBMISSION:

Articulation agreements with: Washington County Public Schools, Hagerstown, MD, Waynesboro Senior High School, Waynesboro, PA, Montgomery County Public Schools, Rockville, MD.

Washington County Public Schools agreement the following schools: Washington County Technical School, North HS, South HS, Smithsburg HS, Boonsboro HS, Clear Spring HS, Hancock HS, Williamsport HS.

HAGERSTOWN COMMUNITY COLLEGE

WASHINGTON COUNTY PUBLIC SCHOOLS

ARTICULATION AGREEMENT

ACADEMIC YEARS 2009-2010

This agreement between Washington County Public Schools and Hagerstown Community College has been entered into for the purpose of assisting students in the transition from high school to college. The agreement specifies the conditions under which Hagerstown Community College will award credit to students for work successfully completed while they attended Washington County public high schools. With this latest articulation agreement, Washington County Public Schools and Hagerstown Community College reaffirm their partnership and their commitment to student success.

Elizabeth M. Morgan, Superintendent Washington County Public Schools

Date:----=?,--+;2_2-_-~"-f-~_o-----,-9_ Date: ~i,/ ~h1

(The above information actually contains the signatures; file was scanned in, signatures were not in a digital form)

WASHINGTON COUNTY PUBLIC HIGH SCHOOL COURSE OR PROGRAM OF STUDY HCC

PROGRAM(S)

REQUIREMENTS TO BE MET

CREDITS ELIGIBLE FOR ARTICULATION

Accounting I and II

Accounting and Business (AAS) and various majors in which ACC 101 is required

- Completion of WCPS Accounting I & II with a minimum grade of 80% in each course; and

- Completion of HCC Challenge Exam for ACC 101 with a minimum grade of 70%. 4 (ACC 101)

Accounting I

Advanced Computer Applications/Computer Game Development and Animation (Technical High School) Information Systems Technology • Completion of WCPS Advanced Computer Applications/Computer Game Development and Animation Pilot w/a minimum grade of 90% in all program courses to be articulated; and

- Enrollment in an HCC Information Systems Technology (IST) AAS or Certificate Program; and

- Articulate a maximum of 9 credits. 3 (IST 102)

Introduction to Information Technology

1 (IST 103)

Presentation Software

Computer Game Development Animation II Simulation and Digital Entertainment (SDE) • Completion of Computer Game Development II with a minimum grade of 80%; and

- Submission of portfolio and completion of items 4,7,10,13 and 17 on the "Portfolio Organizational Plan 3" as provided by the CGDA Instructor; and
- Portfolio assigned a grade of "B: (80%) or better on the included work as assessed by the lead SDE faculty member; and
- Completion of SDE 203 (3D and Advanced Animation) with a grade of "C" or better; and

- Enrollment in an HCC SDE, Information Systems Technology, Graphic Design Technology or Web and Multimedia Technology program. 3 (SDE 102)

Multimedia Authoring

Business Education

- Advanced Software

Applications Division of Technology and Computer Studies (TCS) (various programs) • Completion of WCPS Advanced Software Applications with a minimum grade of 90%; and

- Enrollment in any TCS AAS or Certificate program. 1 (IST 103)

Presentation Software

Word Processing I Division of Technology and Computer Studies (TCS) (various programs) • Completion of WCPS Word Processing I with a minimum grade of 90%; and

- Enrollment in any TCS AAS or Certificate program. 1 (IST 101)

Basic Keyboarding

Word Processing II Division of Technology and Computer Studies (TCS) (various programs) • Completion of WCPS Word Processing II with a minimum grade of 90%; and

- Enrollment in any TCS AAS or Certificate program. 3 (IST 105)

Fundamentals of Word Processing

Business Education

- Introduction to

Business Management Business; Accounting; Management • Completion of WCPS Introduction to Business Management with a minimum grade of 90%; and

- Enrollment in an HCC AAS or Certificate program in Accounting and Business or Management, or any HCC AAS or Certificate program that requires BUS 101. 3 (BUS 101)

Introduction to Business Organization and Management

Business Education

- Web Design Web and Multimedia Technology • Completion of WCPS Web Design

with a minimum grade of 90%; and

- Enrollment in an HCC Web and Multimedia Technology program; and
- Completion of any HCC Web course above 101 with a grade of "B" or better. 3 (WEB 101)

Web Design I

(Note: WEB 101 will be waived as a prerequisite to any WEB course above 101 with proof of required minimum grade in WCPS Web Design.)

AP Computer Science

(JAVA) Computer Science/

Information Systems Technology

- Completion of WCPS AP Computer Science (JAVA) with a minimum grade of 80%; and

- Enrollment in an HCC Information Systems Technology Certificate or AAS Degree program.

Select either:

3 (IST/CSC 132)

Introduction to C and C++

OR

3 (IST/CSC 134)

Introduction to JAVA Programming

Introduction to Programming

(C++) Computer Science/

Information Systems Technology • Completion of WCPS Introduction to Programming with a minimum grade of 80%; and

- Enrollment in an HCC Information Systems Technology Certificate or AAS Degree program.

3 (IST/CSC 132)

Introduction to C and C++

English English and various majors in which ENG 101 is required • Completion of WCPS AP course, Composition/Language with a minimum grade of 80%; and

- SAT score of 550 or above, or ACT score of 21 or above; and

- Completion of English 102 with a grade of "C" or better; and

3 (ENG 101)

English Composition

English English and various majors in which ENG 101 or ENG 102 or ENG 112 are required • Completion of WCPS AP course, Composition/Literature with a minimum grade of 80%; and

- SAT score of 550 or above, or ACT score of 21 or above; and completion of 200-level HCC literature course with a grade of "C" or better. 3 (ENG 101)

English Composition and

3 (ENG 102)

Composition and Literature

OR

3 (ENG 101)

English Composition and

3 (ENG 112)

Technical Writing

AP English Language/Composition English and various majors in which ENG 101

is required

- Completion of WCPS AP English Language/Composition course with AP Exam score of 3.3 (ENG 101)
English Composition

AP English Literature/Composition English and various majors in which ENG 102 is required

- Completion of WCPS AP English Literature/Composition course with AP Exam score of 3.3 (ENG 102)
Composition and Literature

World and Classical Languages; Level I Spanish and Honors Spanish I Foreign Languages/ Spanish and various majors • Completion of WCPS Level I high school Spanish with a minimum grade of 80%; and

- Completion of HCC SPN 102 with a grade of "C" or better. 4 (SPN 101)
Elementary Spanish I

World and Classical Languages; Level II Spanish and Honors Spanish II Foreign Languages/ Spanish and various majors • Completion of WCPS Level II high school Spanish with a minimum grade of 80%; and

- Completion of HCC SPN 201 with a grade of "C" or better. 4 (SPN 102)
Elementary Spanish II

World and Classical Languages; Level III Spanish and Honors Spanish III Foreign Languages/ Spanish and various majors • Completion of WCPS Level III high school Spanish with a minimum grade of 80%; and

- Completion of HCC SPN 202 with a grade of "C" or better. 3 (SPN 201)
Intermediate Spanish I

World and Classical Languages:

- Honors Spanish IV
- AP Spanish Language
- Independent Study

Spanish Foreign Languages/ Spanish and various majors • Completion of WCPS Level IV of high school Spanish AP and a score of 3 or higher on AP exam or completion of Honors Spanish IV or Independent Study Spanish w/a minimum grade of 80%. 3 (SPN 202)
Intermediate Spanish II

World and Classical Languages: Level I German and Honors German I Foreign Languages/ German and various majors • Completion of WCPS Level I high school German with a minimum grade of 80%; and

- Completion of HCC GER 102 with a grade of "C" or better. 4 (GER 101)
Elementary German I

World and Classical Languages: Level II German and Honors German II Foreign Languages/ German and various majors • Completion of WCPS Level II high school German with a minimum grade of 80%; and

- Completion of HCC GER 201 with a grade of "C" or better. 4 (GER 102)
Elementary German II

World and Classical Languages: Level III German and Honors German III Foreign

Languages/ German and various majors • Completion of WCPS Level III high school German with a minimum grade of 80%; and

• Completion of HCC GER 202 with a grade of "C" or better. 3 (GER 201)
Intermediate German I

World and Classical Languages:

- Honors German IV
- AP German Language
- Independent Study

German Foreign Languages/ German and various majors • Completion of WCPS Level IV of high school German AP and a score of 3 or higher on AP exam or completion of Honors German IV or Independent Study German w/a minimum grade of 80%. 3 (GER 202)

Intermediate German II

World and Classical Languages: Level I French and Honors French I Foreign Languages/ French and various majors • Completion of WCPS Level I high school French with a minimum grade of 80%; and

• Completion of HCC FRN 102 with a grade of "C" or better. 4 (FRN 101)
Elementary French I

World and Classical Languages: Level II French and Honors French II Foreign Languages/ French and various majors • Completion of WCPS Level I high school French with a minimum grade of 80%; and

• Completion of HCC FRN 201 with a grade of "C" or better. 4 (FRN 102)
Elementary French II

World and Classical Languages: Level III French and Honors French III Foreign Languages/ French and various majors • Completion of WCPS Level III high school French with a minimum grade of 80%; and

• Completion of HCC FRN 202 with a grade of "C" or better. 3 (FRN 201)
Intermediate French I

World and Classical Languages:

- Honors French IV
 - AP French Language
- or AP Independent

Exam Foreign Languages/ French and various majors • Completion of WCPS Level IV of high school French AP and a score of 3 or higher on AP exam or completion of Honors French IV or Independent Study French w/a minimum grade of 80%. 3 (FRN 202)

Intermediate French II

Mathematics

A341AP

Advanced Placement Calculus

One Semester Mathematics • Completion of high school Advanced Placement Calculus One semester (A341AP) with a grade of 80% or better AND a grade of "C" or better in HCC MAT 204 (Calculus II). 4 MAT 161

Elementary Functions

AND

4 MAT 203

Calculus I
Total of 8 credits
Mathematics
A339AP

Advanced Placement Calculus

Two Semesters Mathematics • Completion of high school Advanced Placement Calculus Two semesters (A339AP) with a grade of 80% or better and a grade of "C" or better in HCC MAT 205 (Calculus III) OR MAT 206 (Differential Equations). 4 MAT 161

Elementary Functions

AND

4 MAT 203

Calculus I

AND

4 MAT 204

Calculus II

Total of 12 credits

Mathematics

A333H and A334H or A338H

Honors Trigonometry and Honors Pre-Calculus OR Honors Pre-Cal/Trig

Mathematics • Completion of high school Honors Trigonometry (A333H) and Honors Pre-Calculus (A334H) OR Honors Pre-Cal/Trig (A338H) with a grade of 80% or higher AND a grade of "C" or better in HCC MAT 203 (Calculus I). 4 MAT 161

Elementary Functions

AND

3 MAT 102

Trigonometry

Total of 7 credits

Mathematics

A338H

Honors Trigonometry Mathematics • Completion of high school Honors Trigonometry (A338H) with a grade of 80% or higher AND a grade of "C" or better in HCC MAT 161 (Elementary Functions). 3 MAT 102

Trigonometry

Total of 3 credits

Mathematics

A336AP

Advanced Placement Statistics Mathematics • Completion of high school AP Statistics (A336AP) with a grade of 80% or higher AND a grade of "C" or better in HCC MAT 203 (Calculus I) AND pass the HCC Challenge exam in Statistics. 3 MAT 109

Statistics

Total of 3 credits

Physics Engineering Technology • Completion of WCPS Physics (1 year) with a minimum grade of 80%; and

- Enrollment in HCC Engineering Technology Program; and

- Completion of HCC Challenge exams for PHY 131 and PHY 132 with a minimum score of 70%. 3 (PHY 131)

Basic Physics I

4 (PHY 132)

Basic Physics II

Computer Repair and Networking (Technical High School) Web and Multimedia Technology • Completion of WCPS Computer Repair and Networking program with a

minimum average grade of 80%; and

- Enrollment in an HCC Web and Multimedia Technology program; and
- Completion of any HCC Web course above 101 with a grade of "B" or better. 3 (WEB 101)
Web Design I

(Note: WEB 101 will be waived as a prerequisite to any WEB course above 101 with proof of required minimum grade in WCPS Computer Repair and Networking program.)

Computer Repair and Networking (Cisco Academy I and II) Networking Technology I, II, III, IV • Completion of the WCPS/CISCO Academy Classes Discovery I and II as part of the Computer Repair and Networking program with a minimum average grade of 80%; and

- Enrollment in any Information Systems Technology Associate of Applied Science degree program. 4 (IST 155)
Networking I

Computer Repair and Networking (Cisco Academy I and II) Networking Technology I, II, III, IV • Successfully pass and document the CISCO CCNA professional exam; and

- Enrollment in any IST Associate of Applied Science degree program. 4 (IST 155)
Networking I
4 (IST 156)
Networking II
4 (IST 255)
Networking III
4 (IST 256)
Networking IV

Criminal Justice (Technical High School) Administration of Justice

- Completion of WCPS Criminal Justice Program with a minimum average grade of 80%; and

- Enrollment in HCC Administration of Justice Program; and

- Completion of 3 ADJ credits with a "C" or better, within 2 academic semesters of high school graduation, excluding summers. 3 (ADJ 101)
Introduction to Criminal Justice
3 (ADJ 102)
Introduction to Law Enforcement
3 (ADJ 104)
Introduction to Corrections

Child Care Management and Guidance Early Childhood and Primary grades Education AAS; Education Child Care Professional Certificate; Early Childhood Education AAT • Completion of WCPS Child Care Management and Guidance program with a minimum grade of 80% in all 4 courses; and

- Enrollment in the HCC Early Childhood and Primary Grades Education AAS; Education Child Care Professional Certificate; or Early Childhood Education AAT; and

- Completion of HCC EDU 115 with a grade of "B" or better. 3 (EDU 114)
The Developing Child

Drafting Technology

- Technical Drafting I & II Mechanical Engineering Technology • Completion of WCPS Technical Drafting I & II with a minimum average grade of 80%; and
- Submission of portfolio of work to HCC faculty teaching CAD III; portfolio must receive a minimum grade of 75%; and
- Enrollment in HCC AAS Mechanical Engineering Technology program, AAS MET Option in Computer-Aided Design program, Certificate MET Computer-Aided Design, Certificate MET Computerized Manufacturing, LOR Computer-Aided Design and;
- Completion of HCC CAD 153 with a grade of "C" or better. 3 (CAD 152)
Computer-Aided Design I

Drafting Technology

- Drafting Technology I and II
- Or
- Technical Drafting III and IV Mechanical Engineering Technology • Completion of WCPS Drafting Technology I & II or Technical Drafting III and IV with a minimum average grade of 80%; and
- Submission of portfolio of work to HCC faculty teaching CAD III; portfolio must receive a minimum grade of 75%; and
- Enrollment in HCC AAS Mechanical Engineering Technology program, AAS MET Option in Computer-Aided Design program, Certificate MET Computer-Aided Design, Certificate MET Computerized Manufacturing, LOR Computer-Aided Design. 3 (CAD 226)
CAD III: Architectural
3 (CAD 228)
CAD III: Mechanical

Graphic Communications (Technical High School) Graphic Design Technology (GDT) • Completion of WCPS Graphic Communications Program with a minimum average grade of 80%; and

- Completion, with a grade of B or better, of HCC GDT 116 (Digital Imaging) OR GDT 142 (Computer Illustration: Adobe Illustrator) OR GDT 143 (Digital Layout/Prepress). 3 (GDT 112)
Computer Graphics

Health Occupations (Technical High School) Certified Nursing Assistant/ Geriatric Nursing Assistant • Completion of WCPS Health Occupations Program with a minimum average grade of 80%; and

- Completed application to the Maryland Board of Nursing for CNA certification; and
- Application for articulated credit must be made within 15 months of high school graduation. 7 (NUR 121)

Certified Nursing/Geriatric Assistant
Health

Occupations (Technical High School) Various • Completion of WCPS Health
Occupations Program; and

- CPR and First Aid Certification for Adult, Child and Infant. 3 (HEA 105)
First Aid

Health Occupations (Technical High School) Paramedic Emergency Services
(PES) • Completion of WCPS Health Occupations Program with a minimum average
grade of 80%; and

- Completion of HCC PES 101 (Emergency Medical Terminology) OR PES 104 (EMS
Operations) with a "C" or better. 2 (PES 102)

Introduction to Emergency

Medical Services

1 (PES 103)

EMS Practicum I

Health Occupations (Technical High School) Patient Care Technician

(PCT) • Completion of WCPS Health Occupations Program with a minimum average
grade of 80%; and

- Completion of State CNA Certification; and

- Completion of MAP 102 (Medical Terminology), PLB 105 (Phlebotomy) and PLB
106 (Phlebotomy Externship) with a "C" or better. 3 (MAP 101)

Introduction to Allied Health

7 (NUR 121)

Certified Nursing/Geriatric Assistant

Health Occupations (Technical High School) Medical Assistant Certificate and
AAS; Medical Office Administration; Medical Reimbursement and Coding;

Phlebotomy • Completion of WCPS Health Occupations program with a minimum
average grade of 80%; and

- Enrollment in HCC Medical Assisting or Phlebotomy program; and

- Passage of HCC Medical Terminology final exam with a minimum grade of 70%.
3 (MAP 102)

Medical Terminology

Multimedia and Graphic Design (Technical High School) Graphic Design

Technology

(GDT) • Completion of WCPS Multimedia Graphic Design program with a minimum
average grade of 80%; and

- Completion of HCC GDT 116 (Digital Imaging) OR GDT 142 (Computer
Illustration: Adobe Illustrator) OR GDT 143 (Digital Layout/Prepress) with a
grade of B or better; and

- Enrollment in HCC Graphic Design Technology program; and

- Completion of GDT 214 (Graphic Design II) with a grade of "B" or better. 3
(GDT 112)

Computer Graphics

3 (GDT 114)

Graphic Design I

Multimedia and Graphic Design (Technical High School) Web and Multimedia Technology

(WEB) • Completion of WCPS Multimedia Graphic Design program with a minimum average grade of 80%; and

- Enrollment in HCC Web and Multimedia Technology program; and

- Completion of any WEB course above 101 with a grade of "B" or better. 3 (WEB 101)

Web Design I

(Note: WEB 101 will be waived as a prerequisite to any WEB course above 101 with proof of required minimum grade in WCPS Multimedia Graphic Design program.)

Project Lead the Way:

Pre-Civil and Architectural Engineering Academy (Technical High School)

Computer-Aided Design (CAD) • Completion of WCPS PLTW Pre-Civil and Architectural Engineering Academy with a minimum average grade of 80%; and

- Submission of portfolio of work to HCC faculty member teaching CAD III. A minimum grade of 75% must be received; and

- Enrollment in HCC AAS Mechanical Engineering Technology program, AAS MET Option in Computer-Aided Design program, Certificate MET Computer-Aided Design, Certificate MET Computerized Manufacturing, LOR Computer-Aided Design; and

- Completion of CAD 153 with a grade of "C" or better. 3 (CAD 152)

CAD I

3 (CAD 226)

CAD III Architectural

3 (CAD 228)

CAD III Mechanical

Academy of Finance (South Hagerstown High School) Management • Completion of WCPS Academy of Finance program with a minimum average grade of 80%; and

- Completion of HCC MGT 103, Principles of Management, with a grade of C or better. 3 (BUS 101)

Introduction to Business Organization and Management

Academy of Teaching Professions (North Hagerstown High School) Early

Childhood and Primary grades Education AAS; Education Child Care Professional

Certificate; Early Childhood Education AAT • Completion of WCPS Academy of Teaching Professions with a minimum grade of 80% in all 4 courses; and

- Enrollment in the HCC Early Childhood and Primary Grades Education AAS; Education Child Care Professional Certificate; or Early Childhood Education AAT; and

- Completion of HCC EDU 115 with a grade of "B" or better.

3 (EDU 114)

The Developing Child

WAYNESBORO SENIOR HIGH SCHOOL

COURSE OR

PROGRAM OF

STUDY
HCC
PROGRAM
REQUIREMENTS TO BE MET

CREDITS ELIGIBLE FOR ARTICULATION

Computer Applications: Skill building (Keyboarding) Information Systems Technology (IST) and various programs • Completion of WSHS course with a grade of 90% or better; and

- Enrollment in an HCC program for which keyboarding is required; and
- Application for articulated credit within fifteen months of high school graduation 1 (IST 101)
Basic Keyboarding
Computer Applications: Advanced Power Point

Information Systems Technology

(IST) • Completion of WSHS course with a grade of 90% or better; and

- Enrollment in an HCC IST program; and
- Application for articulated credit within 15 months of high school graduation 1 (IST 103)
Presentation Software
Computer Applications: Advanced MS Word

Information Systems Technology

(IST) • Completion of WSHS course with a grade of 90% or better; and

- Enrollment in an HCC IST program; and
- Application for articulated credit within 15 months of high school graduation 3 (IST 105)
Fundamentals of Word Processing
Computer Applications: Advanced Excel/
Powerpoint

Information Systems Technology

(IST) • Completion of WSHS course with a grade of 90% or better, including the following course modules:

- Data Tables & Scenario Management
- Cost-Volume-Profit Relationships
- One-Way Data Tables
- Two-Way Data Tables
- Summary Reports
- Pivot Summary Reports
- Macros
- Pivot Tables
- Goal Seeking (Increase coverage - only two pages in their text/whole chapter in ours)

- What-if (WASHS covers)
 - Goal Seek (WASHS minimal)
 - Solver (need to add)
 - Iterative Process
 - Linear & Non-Linear Models
-
- Importing Data into Excel
 - Text Files
 - Databases
 - Queries (including Web)
 - Retrieving data from the Web
 - XML Documents
 - VBA for Excel
 - Elements of the VB Editor
 - Sub Procedures
 - Objects
 - Properties
 - Methods
 - Variables
 - Editing Macros
 - Control Structures
 - Creating a Message Box
 - Customizing Toolbars & Menus
 - Customizing Screen Elements
-
- Enrollment in an HCC IST program; and
-
- Application for articulated credit within 15 months of high school graduation; and
- 3 (IST 106)
 Spreadsheet software
 Computer Applications: Web Page Construction
 Information Systems Technology
 (IST) • Completion of WSHS course with a grade of 90% or better; and
- Enrollment in an HCC IST, WEB and Multimedia Technology or Graphic Design Technology program; and
-
- Application for articulated credit within 15 months of high school graduation; and 1 (IST 120)
 Web Publishing

ARTICULATION AGREEMENT

Hagerstown Community College and Montgomery County Public Schools

Hagerstown Community College: Information Systems Technology -A.A.S. and Certificate Programs
 Montgomery County Public Schools Program: Network Operations

INTRODUCTION: In the past several years, technological advances have changed the processes and equipment used in a growing number of technical fields. Today's workforce is confronted with diverse and complex technical concepts and equipment and must have a broad understanding of the comprehensive principles that govern the behavior of the systems and subsystems that make up the work environment.

Administration, curriculum coordinators, and the respective faculties of Montgomery County Public Schools (MCPS) and Hagerstown Community College (HCC) have examined the course competencies and content taught at both institutions in Network Operations and Information Systems Technology and have agreed to:

Develop, for the maximum benefit of students, an articulated program in Network Operations to prepare students for careers in microcomputer installation, configuration & control systems, network installation, configuration, operation, and troubleshooting. Students completing a two semester sequence should be able to pass the vendor-neutral CompTIA A+ and Network+ examinations. These two certifications are rapidly becoming part of the basic credentials that help those going into network management. CERTIFICATION: Students who wish to enter Hagerstown Community College will present an official high school transcript attached to a completed Articulation Agreement Credit Award Form verifying successful completion of the articulated courses with a grade of B or better to the Hagerstown Community College Office of Admissions, Records, and Registration. To receive credit, students must enroll at Hagerstown Community College within five years of completion of an articulated program with MCPS. Credit will be transferred upon admission into Hagerstown Community College into an applicable program and completion of one (1) semester of study.

MCPS PROGRAM

Network Operations

APPLICABLE BCC PROGRAMS Information Systems Technology: Computer Support Specialist A.A.S. Information Systems Technology: Computer Support Specialist Certificate Information Systems Technology: Database Management A.A.S Information Systems Technology: Networking Technology A.A.S Information Systems Technology: Networking Technology Certificate Information Systems Technology: Operating System Specialist Certificate Information Systems Technology: Programming A.A.S. Information Systems Technology: Technician Specialist I, II, & III Certificates

CORRESPONDING HCC COURSES IST150-PC Tech: Repair & Troubleshooting (3 credits) 4202 Network Operations (1.5 credits)

MCPS COURSES

and and

IST151-PC Tech Operating Systems (3 credits) 4203 Network Operations (1.5 credits)

and

IST154-Networking Basics (3 credits)

OTHER SPECIAL CONSIDERATIONS:

Students seeking Hagerstown Community College credits for individual course(s) under this Articulation Agreement must additionally provide satisfactory evidence of having passed certain CompTIA examinations, via original exam score sheets or certificates, for each articulated course to be awarded, as shown below:

!

Hagerstown Community College Course

Required CompTIA Examination

IST150-PC Tech: Repair & Troubleshooting

A + Core (Hardware)

IST151-PC Tech Operating Systems

A + Operating Systems

IST154-Networking Basics

Network+

IMPLEMENTATION: To implement this agreement, the participating institutions agree to:

1.

Offer approved Montgomery County Public Schools courses during grades nine through twelve in mathematics, science, and technology that include prerequisite skills and content for courses offered in the Hagerstown Community College curriculum in the Information Systems Technology Program. Students will be encouraged to pursue a challenging academic program in grades nine through twelve. Students may be required to take developmental courses in English, reading, and mathematics before moving on to the next level course in their chosen Hagerstown Community College program.

2.

Upon completion of the specific MCPS technical courses, outlined in this Agreement, students may receive college credit when they enter Hagerstown Community College's Information Systems Technology Program.

3.

Jointly develop promotional materials to describe the program to students, staff, faculties, parents, and the community.

4.

Jointly develop and implement a procedure to monitor, evaluate, and assess the effectiveness of the program.

5.

Communicate this agreement to all concerned, including counselors, faculty, students, and parents.

6.

Designate one MCPS administrator and one LICC representative with responsibility for coordinating and supervising the agreement.

7.

Review the agreement annually and coordinate any curricular changes that may affect the agreement.

20f3

THIS AGREEMENT, having been formulated by the responsible faculties and administrative personnel of the Montgomery County Public Schools and Hagerstown Community College, and having been certified by the chief academic officers of both institutions, is herewith agreed to this 1st day of February, 2006 for implementation beginning with the fall semester of 2006. Superintendent of Schools Montgomery County Public Schools BCC Faculty

Signatures(s):

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Steve SHank

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Margaret:Spivey \

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d. Participation in Cyber/IA competitions.

Point Value: 2 points per each / 6 pts maximum

SUBMISSION:

Our participation with CyberWatch, CISSE, NSA and IA curriculum development has been extremely active. Our forensic team was ready to participate in the last cup competition. Due to some timing issues, they missed the deadline for the competition. The students completed the exercises in the HCC classroom. Since we are a young program we have not yet actively participated in any

Cyber/IA competition. As a young program, we continue to develop our classrooms to meet the need of students; future classroom development will allow us prepare students for CyberDefense/IA competition.

e. Courses containing "Hands-on" training or Lab training.

Point Value: 2 points per course / 6 pts maximum

SUBMISSION:

IST 160, IST 155, IST 156, IST 255, IST 256 require hands-on training.

Click on this link to view course descriptions:

<http://www.hagerstowncc.edu/academics/courses/Information%20Systems%20Technology%20%28IST%29>

IST 160 Information Security Fundamentals: This is the first course in the fundamentals of information, computer and network security. The course discusses common security issues, identifies methods of assessing systems to identify critical data and presents tools and techniques for securing computers and networks. Course objectives map to the CompTIA Security+ Exam and include general security concepts, communication security, infrastructure security, basics of cryptography and operational/organizational security.

Hagerstown Community College
OFFICIAL COURSE SYLLABUS DOCUMENT

COURSE: IST 160 Information Security Fundamentals 3 credits

INSTRUCTOR: Stephen Shank SEMESTER/YEAR: Fall 2009

COURSE DESCRIPTION: Information Security is a first course in the fundamentals of information, computer and network security. The course is presented in lecture, lab and discussion format. Course topics include common security issues including viruses, malware, spyware, Trojan horses, Denial of Service (DoS), buffer overflow and hacking. Additional topics include communication security, infrastructure security, cryptography and operational security. Semesters offered: As Needed.

TEXTBOOKS: Security+ Guide to Network Security Fundamentals, 2 edition. Mark Ciampa. Thompson Course Technology. 0-619-21566-6 ISBN: 0-13-171129-6 2nd Edition Update. 1-4283-6085-9. LabSim for Security+. Thompson Course Technology. 1-4188-3735-0.

COURSE POLICIES:

- Course documents are available on campus Blackboard (blackboard.hagerstowncc.edu).
- Blackboard User id and password is same as HCC campus email id and password.
- Attendance is taken each class. While attendance is not directly computed into grade, grade may be impacted by attendance in border line cases.
- Instructor reserves right to modify schedule, topics, and assignments as necessary.
- Check Blackboard frequently. Announcements will appear as necessary.

ASSESSMENT PROCEDURES:

Labs 25% 90 - 100 A

Sims 25% 80 - 89 B

Quizzes 25% 70 - 79 C

Exams 10% 60 - 69 D

Discussion Board 15%

Labs - labs are generally constructed by textbook chapter. Each contains hands-on exercises that can be performed in class or at home. Labs are found in the Assignment Lab section of Blackboard. Download the lab, follow the procedures given. Answer the questions and complete the activities. You may elect to work with a partner for lab. Submit completed document to Blackboard. Identify your work.

Sims - From the LabSim for Security+ within the textbook bundle. Complete the tutorials and simulations for each of the units. Submit screenshot of completed units in blackboard.

Quizzes - quizzes are assigned by chapter. Quizzes are objective (multiple-choice/true-false and administered on-line. They should be completed within a week after material is presented.

Exams - preparation for the CompTIA Security+ exams.

Discussion Board - Discussion involving security concepts. For each topic create a new thread and secondary thread for a classmate's thread. Found within blackboard.

TOPICAL OUTLINE:

Week Topic Assignment Due

Aug 31 Ch 1 Information Security Fundamentals

Update Ch 1New Challenges in Security

Sep 7 Ch 2 Attackers and Their Attacks Q1, Lab 1, Sim 0

Sep 14 Ch 3 Security Basics

Update Ch 3 Desktop Security Q2, Lab 2, Sim 1, DB1

Sep 15 Ch 4 Security Baselines Q3, Lab 3, Sim 2

Sep 28 Ch 5 Securing the Network Infrastructure Q4, Lab 4, Sim 3, DB2

Oct 5 Ch 6 Web Security

Update Ch 4 Internet Security Q5Lab 5, Sim 4

Oct 12 Ch 7 Protecting Advanced Communications

Update Ch 2 Network & Communication Defenses Q6, Lab 6, Sim 5, DB3

Oct 19 open

Oct 26 Ch 8 Scrambling through Cryptography Q7, Lab 7, Sim 6

Nov 2 Ch 9 Using and Managing Keys Q8, Lab 8, Sim 7, DB4

Nov 9 Ch 10 Operational Security Q9, Lab 9, Sim 8,

Nov 16 Ch 11 Policies and Procedures Q10, Lab 10, Sim 9, DB5

Nov 23 Ch 12 Security Management Q11.Lab 11, Sim 10

Nov 30 Ch 13 Advanced Security and Beyond Q12, Lab 12

Dec 7 Appendix A & D Q13, Lab 13

Dec 14 Final

STUDENT LEARNING OUTCOMES:

- Identify threats to a computer network: intrusion, Denial of Service attacks, and malware.
- Assess the likelihood of an attack on your personal computer and network.
- Define key terms such as cracker, sneaker, firewall, and authentication.
- Compare and contrast perimeter and layered approaches to network security.
- Use online resources to secure your network.
- Describe the OSI model of network communication.
- Explain the use of MAC addresses.
- Identify each of the major protocols used in network communication (for

example, FTP and Telnet) and what use you can make of each.

- Understand the various connection methods and speeds used on networks.
- Identify what a router is and its use.
- Understand how data is transmitted over a network.
- Explain how the Internet works and the use of IP addresses and URLs.
- Use network utilities such as these: ping, IPConfig, and tracert.
- Explain the use of firewalls and proxy servers.
- Understand and be able to conduct basic system reconnaissance.
- Describe and use several port scanners.
- Understand how to derive useful information about a Web site from internic or the Netcraft Web site.
- Locate information about a system or organization from Internet newsgroup postings.
- Understand the use of vulnerability scanners.
- Use port monitoring utilities.
- Understand how Denial of Service (DoS) attacks are accomplished.
- Know how certain DoS attacks work, such as SYN flood, Smurf, and DDoS.
- Take specific measures to protect against DoS attacks.
- Know how to defend against specific DoS attacks.
- Understand viruses (worms) and how they propagate, including the Sobig and Sasser
- Have a working knowledge of several specific virus outbreaks.
- Understand how virus scanners operate.
- Understand what a Trojan horse is and how it operates.
- Have a working knowledge of several specific Trojan horse attacks.
- Grasp the concept behind the buffer overflow attack.
- Have a better understanding of spyware and how it enters a system.
- Defend against each of these attacks through sound practices, antivirus software, and anti-spyware software.
- Probe a system for vulnerabilities.
- Understand how policies are set.
- Evaluate potential security consultants.
- Properly set security on an individual workstation.
- Properly secure a server.
- Establish general guidelines for network security.
- Explain the basics of encryption.
- Discuss modern cryptography methods.
- Select appropriate cryptography for your organization.
- Understand the function and protocols of VPNs.
- Explain the methods used in Internet investment scams and auction frauds, such as pump and dump and bid siphoning.
- Take specific steps to avoid fraud on the Internet.
- Know specific steps to avoid identity theft.
- Understand cyber stalking and relevant laws.
- Know some legal aspects that apply to computer crimes.
- Configure a Web browser's privacy settings.
- Know what is meant by industrial espionage.
- Understand the low-technology methods used to attempt industrial espionage.
- Be aware of how spyware is used in espionage.
- Know how to protect a system from espionage.
- Explain what cyber terrorism is and how it has been used in some actual cases.
- Understand the basics of information warfare.
- Have a working knowledge of some plausible cyber terrorism scenarios.
- Have an appreciation for the dangers posed by cyber terrorism.
- Find contact information on the Web.
- Locate court records on the Web.

- Locate criminal records on the Web.
- Use Usenet newsgroups to gather information
- Evaluate the effectiveness of a scanner based on how it works.
- Choose the best type of firewall for a given organization.
- Understand anti-spyware methods.
- Employ intrusion-detection systems to detect problems on your system.

IST 155 Networking I: This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers in conjunction with the Cisco Networking Academy. The principles and structure of IP addressing and the fundamentals of ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Introductory router/switch device configuration skills are also included.

Hagerstown Community College
OFFICIAL COURSE SYLLABUS DOCUMENT

COURSE: IST 155 - Networking 1 4 credits
CMT 355 - CCNA: Networking 1 Certificate
Classroom: Tuesday, 6 - 10 PM Online Postings: Thursday, 6 PM -
Saturday: 10/10/09

INSTRUCTOR: Jack Drooger Jr. SEMESTER/YEAR: Fall 2009
CONTACT INFORMATION: 301.790.2800, x453 droogerj@hagerstowncc.edu

COURSE DESCRIPTION:

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers in conjunction with the Cisco Networking Academy. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Introductory router/switch device configuration skills are also included. Students must have a personal computer and Internet access to complete online assignments and exams. Class also meets at least one Saturday per session per the instructor's discretion. Laboratory fee required. Prerequisites: IST 150 and IST 151 or A+ certification or equivalent work experience. Semester offered: Fall.

TEXTBOOK: Network Fundamentals, CCNA Exploration Labs and Study Guide; Cisco Press; ISBN: 1587132036 / ISBN 13: 9781587132032

STUDENT LEARNING OUTCOMES:

- Create a physical layer network infrastructure including selection of appropriate media (wired or wireless), media termination, installation of vertical and horizontal cabling, and proper termination/documentation.
- Develop a logical network infrastructure using the OSI and TCP/IP models to implement appropriate layer protocols including TCP/IP with classless addressing and subnets.
- Use a command line interface (CLI) to configure a managed router or switch.

COURSE POLICIES:

1. Course Lessons: Will be delivered in the classroom via a local web server and in compliance with Cisco's policy for local content distribution. Students may also view the curriculum outside the classroom through the Cisco Academy Connection server at <http://cisco.netacad.net> using the login name and password supplied by the instructor.

2. Topical Outline (see below): The instructor reserves the right to modify course schedule, topics, and assignments as needed.

3. Skills based Assessment/Structured Cabling: Students will be required to demonstrate skills through a hands-on exam related to the semester topics. Documentation of those skills through a case study may also be required.

4. Hagerstown Community College's Attendance Policy: Students are expected to attend all classes. In the case of absence due to emergency, or participation in official College functions, it is the student's responsibility to confer with the instructor about the absence and missed course work. Further, it is the student's responsibility to withdraw officially from any class, which he or she ceases to attend, and failure to do so will result in the recording of an "F" grade.

5. Services for Students with Special Needs: Students who have special needs are encouraged to identify themselves to the coordinator of special student services as early as possible. Reasonable accommodations based on current documentation are provided to qualified students.

ASSESSMENT PROCEDURES:

Quizzes and Final Exam: Students will take the module exams online administered over the Cisco assessment server using the individual student login and password. Only the online final exam will be taken in the classroom (required by Cisco). Up to three retakes are allowed for module exams. No retake will be permitted for the online final exam.

Online Assignments 20% - Structured Cabling worksheets
Online Chapter Exams 40% - Using the Cisco Assessment Server
Online Final Exam 20% - Using the Cisco Assessment Server
Hands-on Final Exam 20% - Skills Based Assessment

Grading A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = < 60%

COURSE OBJECTIVES:

Upon completion of this course, students will be able to perform the following tasks:

- Explain the importance of data networks and the Internet in supporting business communications and everyday activities
- Explain how communication works in data networks and the Internet
- Recognize the devices and services that are used to support communications across an Internetwork

- Use network protocol models to explain the layers of communications in data networks
- Explain the role of protocols in data networks
- Describe the importance of addressing and naming schemes at various layers of data networks
- Describe the protocols and services provided by the Application layer in the OSI and TCP/IP models and describe how this layer operates in various networks
- Analyze the operations and features of the Transport layer protocols and services
- Analyze the operations and feature of the Network layer protocols and services and explain the fundamental concepts of routing
- Design, calculate, and apply subnet masks and addresses to fulfill given requirements
- Describe the operation of protocols at the OSI Data link layer and explain how they support communications
- Explain the role of Physical layer protocols and services in supporting communications across data networks
- Explain fundamental Ethernet concepts such as media, services, and operation
- Employ basic cabling and network designs to connect devices in accordance with stated objectives
- Build a simple Ethernet network using routers and switches
- Use Cisco command-line interface (CLI) commands to perform basic router and switch configuration and verification
- Analyze the operations and features of common Application layer protocols such as HTTP, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Simple Mail Transfer Protocol (SMTP), Telnet, and FTP
- Utilize common network utilities to verify small network operations and analyze data traffic

TOPICAL OUTLINE:

Week 1 Module 1: Living in a Network-Centric World

Module 2: Communicating over the Network

Online:

Module Exams: 2

Structured Cabling Worksheet: Structured Cabling Systems

Week 2 Module 3: Application Layer Functionality and Protocols

Module 4: OSI Transport Layer

Online:

Module Exams: 3 & 4
Structured Cabling Worksheet: Structured Cabling Standards and Codes
Week 3 Module 5: OSI Network Layer
Module 6: Addressing the Network - IPv4

Online:
Module Exams: 5
Structured Cabling Worksheet: Safety
Week 4 Module 6: Addressing the Network - IPv4 - continued
Module 7: Data Link Layer

Online:
Module Exams: 6 & 7
Structured Cabling Worksheet: Tools of the Trade
Week 5 Module 8: OSI Physical Layer
Module 9: Ethernet

Online:
Module Exam: 8 & 9
Structured Cabling Worksheet: Installation Process
Week 6 Module 10: Planning and Cabling Networks
Module 11: Configuring and Testing Your Network

Online:
Module Exams: 10 & 11
Structured Cabling Worksheet: Finish Phase
Week 7 Online:
Structured Cabling Worksheet: The Cabling Business

In Class Finals:
• Skills Exam
• Comprehensive Exam

Instructor reserves the right to adjust content and assignments as required.

Optional readings:

- Network Fundamentals: CCNA Exploration Companion Guide; Cisco Press; ISBN 1-58713-208-7
- CCNA Portable Command Guide; Cisco Press; ISBN 1-58720-158-5
- CCNA Command Quick Reference; Cisco Press; ISBN 1-58713-159-5

IST 156 Networking II: This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. This course is offered in conjunction with the Cisco Networking Academy.

IST 255 Networking III: This course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement Virtual LANs, VTP, Inter-VLAN routing, and Spanning Tree Protocol in a converged network. In conjunction with the Cisco Networking Academy, students also develop the knowledge and skills necessary to implement a WLAN in a small to medium network.

Hagerstown Community College
OFFICIAL COURSE SYLLABUS DOCUMENT

COURSE: IST 255 - Networking III - CMT 455 CCNA: Networking 3 4 credits
Classroom: Wednesdays, 6 - 10 PM Online Postings: Monday, 8 PM
Saturday: 2/27/10

INSTRUCTOR: Jack Drooger Jr SEMESTER/YEAR: Spring 2010
CONTACT INFORMATION: 301.790.2800, x453 droogerj@hagerstowncc.edu

COURSE DESCRIPTION:

This course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement Virtual LANs, VTP, Inter-VLAN routing, and Spanning Tree Protocol in a converged network. In conjunction with the Cisco Networking Academy, students also develop the knowledge and skills necessary to implement a WLAN in a small to medium network. Students must have a personal computer and Internet access to complete online assignments and exams. Class also meets at least one Saturday per session per the instructor's discretion. Laboratory fee required. Prerequisite: IST 156. Semesters offered: Spring.

TEXTBOOK: LAN Switching and Wireless, CCNA Exploration Labs and Study Guide; Cisco Press

STUDENT LEARNING OUTCOMES:

- Design and implement a switched network using VLANs, VLAN Trunking Protocol (VTP), Rapid Spanning Tree Protocol (RSTP), Per VLAN Spanning Tree Protocol (PVSTP), and 802.1q trunking.
- Configure a router to support inter VLAN routing using 802.1q trunking through sub interfaces.
- Design and implement a small standards-based wireless network including appropriate security settings

COURSE POLICIES:

1. Course Lessons: Will be delivered in the classroom via a local web server and in compliance with Cisco's policy for local content distribution. Students may also access the curriculum outside the classroom through the Cisco Academy Connection server at <http://cisco.netacad.net> using the login name and password supplied by the instructor.
2. Topical Outline (see below): The instructor reserves the right to modify course schedule, topics, and assignments as needed.
3. Skills based Assessment/Threaded Case Study: Students will be required to

demonstrate skills through a hands-on project related to the semester topics. Documentation of those skills through a case study will also be required.

4. Hagerstown Community College's Attendance Policy: Students are expected to attend all classes. In the case of absence due to emergency, or participation in official College functions, it is the student's responsibility to confer with the instructor about the absence and missed course work. Further, it is the student's responsibility to withdraw officially from any class, which he or she ceases to attend, and failure to do so will result in the recording of an "F" grade.

5. Services for Students with Special Needs: Students who have special needs are encouraged to identify themselves to the coordinator of special student services as early as possible. Reasonable accommodations based on current documentation are provided to qualified students.

ASSESSMENT PROCEDURES:

Quizzes and Final Exam: Students will take the module exams online administered over the Cisco assessment server using the individual student login and password. Only the online final exam will be taken in the classroom (required by Cisco). Up to three retakes are allowed for module exams. No retake will be permitted for the online final exam.

Online Module Exams 30% - May be retaken up to three (3) times
Online Final Exam 20% - No retakes permitted
Skills Based Assessment 20% - Routing/network implementation exams
Case Study 20% - Routing case study and deliverables
Lab Assignments 10%

Grading A = 90 - 100%
B = 80 - 89%
C = 70 - 79% D = 60 - 69%
F = < 60%

COURSE SCHEDULE:

Week 1 Routing and Protocols Review

Chapter 1 - LAN Design

Week 2 Chapter 2 - Basic Switch Concepts and Configuration

Week 3 Chapter 3 - VLANs

Week 4 Chapter 4 - VTP

Week 5 Chapter 5 - STP

Week 6 Chapter 6 - Inter-VLAN Routing

Week 7 Chapter 7 - Basic Wireless Concepts and Configuration
Review for Final Exam

Week 8 Final Online Exam

Final Skills Based Assessment

COURSE OBJECTIVES:

Upon completion of this course, students will be able to:

- Describe the purpose, nature, and operations of a router
- Identify and correct common network problems at layers 1, 2, 3, and 7 using a layered model approach
- Interpret network diagrams
- Select the appropriate media, cables, ports, and connectors to connect switches to other network devices and hosts
- Explain the technology and media access control method for Ethernet networks
- Explain basic switching concepts and the operation of Cisco switches
- Perform and verify initial switch configuration tasks including remote access management
- Describe enhanced switching technologies such as VLANs, VLAN Trunking Protocol (VTP), Rapid Spanning Tree Protocol (RSTP), Per VLAN Spanning Tree Protocol (PVSTP), and 802.1q
- Describe how VLANs create logically separate networks and how routing occurs between them
- Configure, verify, and troubleshoot VLANs, trunking on Cisco switches, interVLAN routing, VTP, and RSTP
- Interpret the output of various show and debug commands to verify the operational status of a Cisco switched network
- Verify network status and switch operation using basic utilities such as ping, traceroute, Telnet, Secure Shell (SSH), Address Resolution Protocol (ARP), and ipconfig, as well as the show and debug commands.
- Identify, prescribe, and resolve common switched network media issues, configuration issues, autonegotiation, and switch hardware failures
- Manage Cisco IOS software and configuration files (save, edit, upgrade, and restore)
- Describe standards associated with wireless media, such as (IEEE WI-FI Alliance, ITU/FCC) standards
- Identify and describe the purpose of the components in a small wireless network, such as Service Set Identification (SSID), Basic Service Set (BSS), and Extended Service Set (ESS)
- Identify basic configuration parameters on a wireless network to ensure that devices connect to the correct access points
- Compare and contrast Wi-Fi Protected Access (WPA) security features and capabilities of open, Wired Equivalent Privacy (WEP), and WPA-1/2 networks
- Describe common wireless-network implementation issues such as interference and misconfiguration

Optional Text:

LAN Switching and Wireless, CCNA Exploration Companion Guide; Cisco Press;
ISBN: 1587132079 / ISBN 13: 9781587132070

IST 256 Networking IV: This course discusses the WAN technologies and network services required by converged applications in enterprise Networks. Students learn how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control and addressing services.

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3. IA as multidisciplinary subject: The academic program demonstrates that IA is treated as a multidisciplinary subject with elements of IA knowledge incorporated into various disciplines.

Overall Point Value: 10 minimum/15 maximum

a. Evidence that IA is taught as modules in existing non-IA courses and that non-technical/non-IA students are being introduced to IA (For example: Non-technical/non-IA students are being introduced to IA concepts; e.g. business courses teaching Information Security modules, health courses – HIPAA regulations)

Point Value: 5 points

SUBMISSION:

IA education in existing non-IA courses and that non-technical/non-IA students are being introduced to IA is found in:
Radiography I (RAD 101), Dental Office Management (DEN 115), Health Record Analysis (MAP 117), Emergency Medical Technician (PES 101). Syllabi for these courses are found below.

RADIOGRAPHY I

Course Title: Radiography I Course Number: RAD 101

Division: Health Sciences/ Instructors: Brenda Hassinger
Radiography Lori Olden

Prerequisite: Acceptance into the Credits: 3
Radiography Program

COURSE DESCRIPTION:

The student is introduced to the principles and practices of radiography and the medical profession. It includes discussion of the fundamentals of radiographic equipment operation, exposure, protection, and patient care. Laboratory fee required. Prerequisite: Acceptance into the radiography program. Two hours lecture and three laboratory hours each week. Semester offered: Summer of freshman year.

TEXTBOOKS:

Adler, Arlene M. Introduction to Radiography and Patient Care, W. B. Saunders Co., Philadelphia, 2007, 4th edition

STUDENT LEARNING OUTCOMES:

The student will:

1. demonstrate knowledge and understanding of the principles and practices of patient care, radiography and the medical profession.
2. demonstrate competent operation of a mobile and stationary x-ray unit.
3. perform basic patient care procedures.

COURSE CONTENT OBJECTIVES :

At the completion of this course, the student

1. identifies the radiation protective devices used for patients and personnel.
 2. demonstrates the basic operation of an x-ray unit.
 3. defines in general terms the units of radiation exposure and their application.
 4. describes the basic operation of devices utilized to monitor radiation workers.
 5. given an x-ray tube, identifies the components of an x-ray tube and describes its operation.
 6. identifies the prime factors of exposure and their function.
- Course Outline/RAD 101 2
7. describes the general effects of anatomical composition and pathology on the prime exposure factors.
 8. identifies the basic components of an x-ray unit.
 9. differentiates between the roles of the various professional organizations in Radiography.
 10. distinguishes between the terms licensure, accreditation, and certification.
 11. states the qualifications and responsibilities of the Radiology Department personnel.
 12. states the basic organizational structure of a Radiology Department.
 13. states the types and basic organizational structure of a modern hospital.
 14. describes the health care delivery system and the health care team.
 15. defines moral, legal, and professional ethics.
 16. discriminates between statements which adhere to and/or violate accepted

principles of moral, legal, and professional ethics.

17. applies the principles of interpersonal relationships pertaining to patients, peers, radiologists, attending physicians, consultants, and the health care team.

18. defines subjective and objective patient symptoms.

19. lists the determining factors which contribute to the physical and emotional needs of the patient.

20. states the factors that the technologists must utilize in order to establish rapport and gain the patient's confidence.

21. demonstrates mastery of the rules of body mechanics in assisting, lifting, and transferring patients.

22. describes the modifications of patient care required by the patient's age, degree of consciousness, and injuries.

23. lists and describes the diagnostic signs and states their significance in evaluating a patient's condition.

24. describes the first aid care of the patient for various medical emergencies.

25. identifies the emergency drugs and equipment maintained on the Code cart.

26. demonstrates the procedure for

A. taking a patient's blood pressure, pulse, and temperature.

B. cardiopulmonary resuscitation.

C. administering oxygen.

D. parenteral administration of medications.

27. describes the "fire and security procedures" for the Radiology Department and the hospital.

28. identifies the basic prefixes and suffixes composing medical terms.

29. identifies the basic medical abbreviations and symbols used within the Radiology Department.

30. identifies areas of human diversity health care providers need to understand to provide quality and effective care

31. describes human diversity traits of age, ethnicity or national origin, race, gender or sexual orientation, and mental and physical ability

ASSESSMENT PROCEDURES:

The grading scale for the course is as follows:

93-100 A

86- 92 B
75- 85 C
70- 74 D
69- under F

Students must receive a minimum grade of 75% (C grade) or higher in RAD 101, Radiography I to progress in the Radiography Program.

Grades will be determined by:

1. Unit exams
2. Lab activities
3. Worksheets
4. Patient care activities

The scores of the exams, worksheets, patient care activities and lab activities will be averaged together to determine the grade for the course. Attendance and class participation are necessary for success in a health science program. Two percentage points will be deducted from the grade for each day of absence.

COURSE POLICIES:

Course Disclaimer

The instructors reserve the right to modify the course content and evaluation procedures as deemed necessary.

Services for Students with Special Needs

Students who have special needs are encouraged to identify themselves to the coordinator of special student services as early as possible. Reasonable accommodations based on current documentation are provided to qualified students. Jamie Bachtell is the advisor and contact person for the Office of Students with Disabilities. She may be reached at 301-790-2800 ext. 273 or via e-mail at bachtellj@hagerstowncc.edu.

Attendance:

The attendance policy for this course will follow the attendance policy stated on page 42 of the 2008-2009 College catalog. Two percentage points will be deducted from the Student's course grade for each absence.

Examination Makeup Policy

The makeup examination policy will follow the procedure outlined in the Attendance policy on page 42 of the 2008-2009 College catalog.

Honor Code:

The Honor Code of the College will be followed for this course. Please refer to the College Guide for additional information on the Honor Code.

Behavior:

Professional behavior is expected at all times. This is for your benefit and the benefit of your classmates. Please disengage cell phones, ipods and

beepers before the start of class. Calculators are to be used for exams, no cell phones or PDAs are to be used for calculators. Please refer to the College Guide for additional information.

Progression in Program:

Students must receive a minimum grade of 75% (C grade) or higher in RAD 101, Radiography I to progress in the Radiography Program.

Dress Code for Lab:

Appropriate attire must be worn at all times. No open-toed sandals, hats, bulky jewelry, etc. are allowed in the lab. Make sure clothing preserves your modesty at all times. Laboratory safety is of utmost importance and unsafe behavior will not be tolerated. Wear your radiation badge at all times.

TOPICAL OUTLINE:

I. The Profession of Radiologic Technology

- A. Introduction to Radiologic Technology
- B. Professional Organizations
- C. Educational Survival Skills

II. Introduction to the Clinical Environment

- A. Introduction to Clinical Education
- B. Radiologic Services Administration
- C. Radiographic Imaging
- D. Radiographic and Fluoroscopic Equipment
- E. Basic Radiation Protection and Practices

III. Patient Care

- A. Patient Interactions
- B. History Taking
- C. Transfer Techniques
- D. Immobilization Techniques
- E. Vital Signs and Oxygen
- F. Infection Control
- G. Aseptic Techniques
- H. Nonaseptic Techniques
- I. Medical Emergencies
- J. Pharmacology
- K. Contrast Media

IV. Ethical and Legal Issues

- A. Professional Ethics
- B. Medical Records and Health Information
- C. Medical Law
- D. ASRT Scope of Practice for the Radiographer and Position Descriptions
- E. Professional Organizations

- F. State Licensing Agencies
- G. Patient Care Lab Activities
- H. The American Registry of Radiologic Technologists Code of Ethics
- I. Your Rights as a Hospital Patient
- J. Human Diversity

V. Medical Terminology

- A. Building Medical Words
- B. Medical Abbreviations
- C. Medical Terms Used in Radiology

CONTACT INFORMATION:

Brenda Hassinger and Lori Olden are the instructors for RAD 101. The instructors can be contacted at:

Brenda Hassinger : 301-790-2800, ext. 205 or hassingerb@hagerstowncc.edu
Lori Olden: 301-790-2800, ext. 525 or oldenl@hagerstowncc.edu

METHOD OF INSTRUCTION:

Methods of instruction used in this course include:

1. Lecture 4. Radiographic films
2. Computer programs/videos 5. Energized x-ray unit
3. Patient care equipment

LLO
4/09

From: Angela Stoops
To: Margaret Spivey
Date: 12/15/2009 4:57 PM
Subject: IA
Attachments: CO101 -2009 Syllabus.DOC; Syllabus dental office management.doc;
PES 101-2.
doc; MAP 117-01 HRA Fall 2009.doc

Margaret,

Good afternoon. Please see below examples of IA from the health sciences division.

We cover "information assurance" in Radiography I, RAD 101, during the first summer semester of the program. The course syllabus is attached - section IV.B Medical Records of the and Information (chapter 23) of the course outline is the key content area for this information. Brenda Hassinger

From the dental assisting, medical assisting, and paramedic programs, please see attached syllabi. HIPPA is integrated into many of our courses, those

attached have HIPPA in the student learning outcomes.

Hope that this is helpful information.

Angie

From: Theresa Marks
To: Margaret Spivey
CC: Angela Stoops
Date: 12/7/2009 11:06 AM
Subject: HIPPA Information: re: Center for Academic Excellence
Attachments: Fwd: Center for Academic Excellence; Syllabus dental office management.doc

Margaret,
For the dental assisting program, I introduce the concept of HIPPA to the students in Dental Assisting 1, and continue throughout the courses with reminders. The official time we discuss this in detail is during Dental Office Management in the Spring Quarter.
Here is the course syllabus; however, it will have slight revisions to it before class starts in the spring.
Sincerely,
Theresa

Theresa Marks, RDH MS
Dental Program Instructor
Hagerstown Community College
(301) 790-2800 ext 507
CPB 128B
tmmarks@hagerstowncc.edu

Hagerstown Community College
COURSE SYLLABUS

DENTAL OFFICE MANAGEMENT

Course Title: Dental Office Management Instructor:

Course Number: DEN 115 Semester/Year: Spring 2010

Credits: 2 Division: Health Sciences/
Dental Assisting

COURSE DESCRIPTION:

This course is to provide an overview of the management of a dental office. Topics include communication skills, patient management, bookkeeping and recall systems, preparation of dental insurance forms, supplies and inventory, maintenance of patient records and appointment control. Total of 30 hours lecture.

PRIMARY TEXTBOOK:

Finkbeiner, Betty L., Finkbeiner, Charles A. Practice Management for the Dental Team. Mosby Elsevier Publishers, 2006, 6th Edition.

LEARNING OUTCOMES:

Upon successful completion of this course, the student will have the ability to:

- *Explain the concept of dentistry as a business
- *Differentiate between various styles of management
- *Determine goals and objectives for a dental practice
- *Manage interpersonal communications of staff and dentist, and manage staff conflict
- *Understand and explain patients' needs
- *Explain the impact of ethics and law on the dental business office
- *Describe the application of technology to a dental practice
- *Define HIPAA and describe how to implement HIPAA regulations in the dental office record management system
- *Explain the importance of maintaining accurate records
- *Implement and maintain an appropriate supply and inventory program
- *Identify the characteristics of effective correspondence in a dental practice
- *Identify important factors in scheduling appointments and how to resolve scheduling conflicts
- *Submit dental claim forms for a variety of dental insurance companies
- *Use the current ADA Code on Dental Procedures and Nomenclature and the Code of Dental Terminology (CDT) manual.
- *Describe and utilize common bookkeeping systems in dentistry
- *Describe and utilize the major types of financial systems and data that must be processed and managed in a modern dental practice.

ASSESSMENT PROCEDURES

The grading scale for the course is:

- 93-100 A
- 86-92 B
- 75-85 C
- 70-74 D
- 69-under F

Students must successfully demonstrate skills learned in this course and receive a grade of 75% (C) or higher in Dental Office Management to progress in the Dental Assisting Program.

Grades will be determined by: Unit exams and quizzes
Homework assignments

The grades received on the unit exams and the average grades received on the quizzes and homework assignments will be averaged together and weighted as follows to determine the final grade for the course:

Unit exams: 50% of final grade
Quizzes and Homework assignments: 50% of final grade

Attendance and class participation are necessary for success in the Dental Assisting Program. One percentage point will be deducted from the final grade

for each lecture absence.

COURSE POLICIES:

Course disclaimer:

The instructors reserve the right to modify the course content and evaluation procedures as deemed necessary.

Students with Special Needs:

Students who have special needs are encouraged to identify themselves to the coordinator of special student services as early as possible. Reasonable accommodations based on current documentation are provided to qualified students. Jamie Bachtell is the advisor and contact person for the Office of Students with Disabilities. She may be reached at 301-790-2800 ext.273 or by email at bachtellj@hagerstowncc.edu.

Attendance:

The attendance policy for this course will follow the Attendance policy stated on page 42 of the 2009-2010 College Catalog.

Examination Makeup Policy:

The makeup examination policy will follow the procedure outlined in the Attendance policy on page 42 of the 2009-2010 College Catalog.

Academic Integrity:

The Academic Integrity policy of the college will be followed for this course. Please refer to pages 34-52 of the 2009-2010 edition of the College Catalog for additional information on the Code of Student Conduct.

Behavior:

The student is expected to behave professionally at all times. If a student's behavior is deemed inappropriate by the instructor, it may result in dismissal from the program. Please refer to pages 34-52 of the 2009-2010 College Catalog for additional information

TOPICAL OUTLINE

I. Dentistry as a Business

- A. The Business of Dentistry
- B. Dental Team Management
- C. Patient Management
- D. Legal and Ethical Issues in the Dental Business Office
- E. New Technology in the Business Office
- F. Office Design and Equipment Placement

II. Communication Management

- A. Working with Dental Office Documents
- B. Storage of Business Records
- C. Written Communication
- D. Telecommunication

III. Business Office Systems

- A. Appointment Management Systems
- B. Recall Systems
- C. Inventory Systems and Supply Ordering
- D. Dental Insurance
- E. Bookkeeping Systems and Supply Ordering

IV. The Dental Assistant in the Workplace

- A. Planning and Managing Your Career Path

Hagerstown Community College
OFFICIAL COURSE SYLLABUS DOCUMENT

COURSE: MAP 117-01 Health Record Analysis 2 Credits

INSTRUCTOR: Melanie Rowland, MSPH SEMESTER/YEAR: Fall 2009

COURSE DESCRIPTION:

This course is designed for the student who is interested in specializing in medical coding and reimbursement. Topics covered include health care delivery systems, health information management professionals, health care settings, patient records, numbering and filing systems, indexes, registers, and health data collection. Additional topics are legal aspects of health information management, and coding and reimbursement. Laboratory fee required. Prerequisite: MAP 107 and BIO 110.

TEXTBOOK: Essentials of Health Information Management, Principles and Practices, Green & Bowie, 2005, Thomson Delmar Learning

STUDENT LEARNING OUTCOMES:

Students will read and interpret health records. They will have a working knowledge of appropriate chart documentation, the medical record as a legal document and the HIPAA regulations governing such.

COURSE CONTENT OBJECTIVES:

1. Identify health information management concepts common to allied health professionals.
2. Describe types of patient records, including documentation issues associated with each.
3. Describe numbering and filing systems and records storage.
4. Identify legal aspects of health information management including HIPAA regulations.
5. Provide an overview of coding and reimbursement issues.

ASSESSMENT PROCEDURES:

Homework 20%
Attendance & Professionalism 10%
Tests 30%
Final Exam 30%
Project 10%
Total: 100%

The final grade is based on the following scale: 90 - 100% A
80 - 89% B
70 - 79% C
60 - 69% D
Below 60% F

COURSE POLICIES:

1. In the event of inclement weather, students are advised to check their campus Email account and/or local radio and television stations, where cancellations will be disseminated.
2. Assignments handed in after the conclusion of the class during which they

were due will have the grade reduced by one full grade for each class session that the project remains outstanding.

3. Disclaimer: The instructor reserves the right to modify course content.

HONOR CODE:

"I promise to uphold the Hagerstown Community College Honor System and to understand all written provisions pertaining to its application. As a member of the college community, I hold the qualities of honesty and integrity in highest regard and will not violate them or tolerate those who do."

PLAGIARISM/ORIGINAL WORK POLICY:

Plagiarism involves using another's work and presenting it as one's own. This includes using information that is not documented accurately, copying another's work and presenting it as one's own. Plagiarism penalties vary according to the instructor, but the minimum penalty is a grade zero on the assignment. Maximum penalties may include expulsion from the college.

CLASS ATTENDANCE POLICY:

1. Students are expected to attend all regularly scheduled classes. In the case of absence due to an emergency, participation in an official College function, illness, or other valid situation, it is the responsibility of the student to confer with the instructor with regard to missed course work assignments and the like.
2. Further, it is the student's responsibility to officially withdraw from any class that s/he ceases to attend (Must be done by Sept 17, 2009). Failure to do so will result in the recording of an "F" grade for that class.
3. Absence from an announced or scheduled test or practical examination, unless previously authorized by the instructor, may result in a score of "0" or the administration of an equivalent assessment at the convenience of the instructor. A special exam fee may be charged.
4. Absence from two (2) class sessions may be grounds for immediate dismissal from the course.
5. Class will begin at the scheduled time. Students arriving late will be marked as such. In the event that the instructor is delayed, students are expected to wait for a minimum of 15 minutes before departing. All cases of time shall be guided by the time displayed in the classroom.

TOPICAL OUTLINE

DATE CLASSROOM HOMEWORK

Week 1

Sept 2, 2009 Chapter 1

Week 2

Sept 9, 2009 Chapter 2 Homework Chapter 1 & 2

DUE

Week 3

Sept 16, 2009 Chapter 3

Week 4

Sept 23, 2009 Test Chapters 1 & 2

Chapter 4 Homework Chapters 3 & 4 DUE

Week 5

Sept 30, 2009 Chapter 5

Week 6

Oct 7, 2009 Test Chapters 3 & 4

Chapter 5-Forms Homework Chapter 5 DUE
Week 7

Oct 14, 2009 Reading & Interpreting
Medical Records

Week 8

Oct 21, 2009 Test Chapter 5

Build a Physician Office
Record -Forms

Week 9

Oct 28, 2009 Chapter 6 Medical Record Homework
DUE

Week 10

Nov 4, 2009 Review Med Rec Homework
Homework Chapters 6 & 7 DUE

Week 11

Nov 11, 2009 Chapter 7

Week 12

Nov 18, 2009 Test Chapters 6 & 7
Chapter 8

Week 13

Thanksgiving Holiday NO CLASS!!

Happy Turkey!

Week 14

Dec 2, 2009 Chapter 9 Homework Chapters 8 & 9

Week 15

Dec 9, 2009 Test Chapters 8 & 9

Case Presentations

Week 16

Dec 16, 2009 Final Exam

Please make sure name and course number are on the top right hand corner of
all paper assignments that are due!

CONTACT INFORMATION:

Melanie Rowland, MSPH

Instructor Medical Assisting & Phlebotomy

E-mail: msrowland@hagerstowncc.edu (this is the best way to contact me)

Phone: office 301-790-2800 ext 624

Office: CPB 127 Hours: Tuesday 8:00am - 1:00pm or by appointment

Hagerstown Community College
OFFICIAL COURSE SYLLABUS DOCUMENT

COURSE: PES 101 Emergency Medical Technician - Basic 4 credits

INSTRUCTOR: Austin G. Rinker, Jr., M.S., NREMT-P & Brian Barnes, EMT-B

SEMESTER/YEAR: Fall 2009

COURSE DESCRIPTION: This course is the minimum level training of the National Standard Curriculum. It provides instruction and experience for emergency care and transport of sick and injured

TEXTBOOK: Emergency Care, Tenth Ed. by Limmer, O;Keefe, Grant, Murry and Bergeron.

STUDENT LEARNING OUTCOMES:

- Describe appropriate medical & trauma patient assessment. Define BSI, scene safety, and need for additional manpower.
- Demonstrate general and focused assessments of the medical and trauma patient.
- Recite the EMT-B scope of practice. Cite the importance of HIPPA, DNR orders and expressed and implied consent.
- List the components of a written patient care (PCR) report. Give an example of a medical facility patient interview, using appropriate verbal language.
- Cite communication skills used to interact with the patient and family. Name legal aspects used during verbal communications.
- Identify proper use of all BLS equipment carried on ambulances
- Summarize importance of maintaining up-to-date skills

COURSE CONTENT OBJECTIVES:

At the completion of this course the student should be able to:

- ♣ Identify patients in need of emergency medical care
- ♣ Provide basic life support for medical and trauma patient
- ♣ Prepare proper documentation of care rendered
- ♣ Determine the most appropriate transport of patients to primary care facilities

ASSESSMENT PROCEDURES:

Assessment includes more than the tests, and graded assignments discussed below. Assessment will also be accomplished by non-graded, in class, individual, and group projects. Participation in these projects and all other class activities is required. Ten percent of the final grade is determined by attendance and participation. Students who attend class and participate in class room discussion and activities will receive 2 points per class. Students who attend but choose not to participate could receive 1 point. Non-attendance (without prior excuse from the instructor) will result in no points.

Grading

This final grade for the course will be based on four (4) areas:

- ♣ Written examinations - there will be seven written module exams. A score of 68% or better is required to pass the module exam. A cumulative score of 70% is required. TO QUALIFY TO TAKE THE STATE WRITTEN EXAMINATION, A CUMULATIVE SCORE OF 70% IS REQUIRED.
- ♣ Practical Examinations - there will be seven practical examinations based on skills presented and practiced in the classroom setting. These practical exams are graded on a PASS / FAIL basis. A student must pass all skills presented in the module prior to advancing to the next module.
- ♣ Participation / Attendance - as stated below, attendance is required.

How to Determine Grade

Student A

Test 1 95/100

Test 2 75/125

Test 3 78/85

Total (8 Exams) $248/310 = 80 \times 80\% = 64$ points

Attendance/Participation

(39 Sessions) $37/39 = 94.9 \times 20\% = 19$ points

83 = B average

COURSE POLICIES:

1. Attendance Policy -Paramedic Emergency Services is by its nature a participatory curriculum. Attendance at all lectures, field trips and other activities dealing with this course is required. An attendance record will be kept and participation will be a factor in determining your grade for the course. If for any reason you must miss a class, prior notification of the instructor is required. Preferably this would be direct verbal communication, but at the very least a message must be left on my answering machine, which is time and date stamped, prior to the beginning of class. Without this notification the absence will be considered unexcused. Students who miss class, either excused or unexcused, are responsible for all material, quizzes, and activities covered in that class.

2. Disclaimer: The instructor reserves the right to modify course content.

HONOR CODE:

"I promise to uphold the Hagerstown Community College Honor System and to understand all written provisions pertaining to its application. As a member of the college community, I hold the qualities of honesty and integrity in highest regard and will not violate them or tolerate those who do."

PLAGIARISM/ORIGINAL WORK POLICY:

Plagiarism involves using another's work and presenting it as one's own. This includes using information that is not documented accurately, copying another's work and presenting it as one's own. Plagiarism penalties vary according to the instructor, but the minimum penalty is a grade zero on the assignment. Maximum penalties may include expulsion from the college.

TOPICAL OUTLINE:

Date Session Lesson Assignment Time

29-Aug 0 Registration, Course material, Requirements 3 Hrs

Module 1, Preparatory

29-Aug #1* Introduction to EMS, Medical-Legal and Ethical Issues Chapters 1 & 3; Protocols I.D-I, III.P, IV.E-G 3 Hrs

2-Sep #2* The Well Being of the EMT Chapter 2; Protocols IV. H - PPE 3 Hrs

5-Sep #3 The Human Body Chapter 4 3 Hrs
 5-Sep #4* Vital Signs & SAMPLE History Chapter 9; Protocols II, IV.D 3 Hrs
 9-Sep #5* Lifting & Moving Patients Chapter 5 3 Hrs
 12-Sep #6* Module 1 Skills & Exam Review Chapters 1-5, 9; Protocols I-D-I, II.P, IV.D-h-PPE 3 Hrs
 Module 2, Airway
 12-Sep #7* Airway Management & Skills Practice Chapter 6 3 Hrs
 16-Sep #8* CPR Protocols II., II.F, P, SS, IV. E-H 3 Hrs
 19-Sep #9* CPR Skills Practice 3 Hrs
 19-Sep #10* Module 2 Skills & Exam Review Above 3 Hrs
 Module 3, Patient Assessment
 23-Sep #11* Patient Assessment, Scene Size-up & Initial Assessment Chapters 7 & 8; Protocols II, IV.D 3 Hrs
 26-Sep #12* Assessment of the Trauma Patient Chapter 10; Chapter 30; Protocols II., III. SS, TT 3 Hrs
 26-Sep #13* Assessment of the Medical Patient Chapter 11; Protocols II., III. A-J, IV. D 3 Hrs
 30-Sep #14* On-Going Assessment Chapter 12; Protocols II, IV.D 3 Hrs
 3-Oct #15 Communications, Documentation, Triage Introduction Chapters 13, 14 & 36, pp 976-991; Protocols IG-I, II, IV.N-1 3 Hrs
 3-Oct #16* Patient Assessment Skills Review Chapters 7, 8, 10-14, 30, & 36 pp 976-991. Protocols ii., III. A-J, TT, IV.D,N-1 3 Hrs
 7-Oct #17* Module 3 Skills & Exam Review Above 3 Hrs
 Module 4, Operations
 10-Oct 911 Tour / MSP Aviation 3 Hrs
 10-Oct 911 Tour / MSP Aviation 3 Hrs
 14-Oct #18* Ambulance Op's, Gaining Access, Rescue Op's, Special Op's, Terrorism Chapters 34-36, 37 (pp 996-1010, 1024-1025), Protocols I.I 3 Hrs
 17-Oct #19* Module 4 Written Exam Review Above 3 Hrs

Module 5A, Medical Emergencies

17-Oct #20* General Pharmacology, Respiratory Emergencies, Allergic Reactions Chapters 15, 16, & 20; Protocols II., III.HH-KK, IV. I, HH-KK 3 Hrs
 21-Oct #21* Cardiac Emergencies, AED, IV Maintenance Chapter 17, Appendix A (pp 797-799) Protocols II, III. F-P, J-1, SS, IV.E-I 3 Hrs
 24-Oct #22* Cardiac Emergencies, AED, IV Maintenance Skills Practice Review Chapters 15-17, Protocols II, III.F-P, J-1, HH, SS, IV.I, E-1, HH-KK 3 Hrs
 24-Oct #23* Module 5A Skills & Written Exam Review Above 3 Hrs
 Module 5B, Medical Emergencies
 28-Oct #24* Acute Abdominal Emergencies, Diabetic Emergencies, Altered Mental Status, Poisoning, Overdose Chapters 18, 19, & 21; Protocols II, III.B-C, CC-FF, LL, IV.I, H (glucometer) 3 Hrs
 31-Oct #25 Behavioral Emergencies, Review, Putting it Together, Environmental Emergencies Chapters 22, 23, & 25. Protocols II, III.E, Q-X, IV.I, H (restraints/glucometer) 3 Hrs
 31-Oct #26* Medical Skills Practice Review Above 3 Hrs
 4-Nov #27* Module 5B Skills & Written Exam Review Above 3 Hrs

Module 6, Trauma

7-Nov #28* Bleeding & Shock, Soft Tissue Injuries Chapters 26 & 27; Protocols II, III.Y, MM, NN, TT, IV.C 3 Hrs
 7-Nov #29* Skills Practice Chapters 26 & 27; Protocols II, III.Y, MM, NN, TT, IV.C 3 Hrs
 11-Nov #30* Musculoskeletal Injuries Chapter 28; Protocols II., III. OO, PP, TT 3 Hrs
 14-Nov #31* Skills Practice Chapter 28; Protocols II., III. OO, PP, TT 3 Hrs
 14-Nov #32* Injuries to the Head & Spine, Putting it All Together Chapter 29

& 30; Protocols II, III, RR, TT, PP 3 Hrs
18-Nov #33* Skills Practice Review Above 3 Hrs
21-Nov #34* Skills Practice Review Above 3 Hrs
21-Nov #35* Module 6 Skills & Written Exam Review Above 3 Hrs
25-Nov Thanksgiving Day Holiday No Classes
25-Nov Thanksgiving Day Holiday No Classes
Module 7, OB, Infants, Children
2-Dec #36* Obstetrics & Gynecologic Emergencies Chapter 24; Protocols II.,
III.D, K, N, Z-BB, QQ, IV.D 3 Hrs
5-Dec #37* Infants, Children, Patients with Special Needs, Geriatric Patients
Chapters 31, 32, & 33; Protocols II, III.A, K, JJ, IV.D 3 Hrs
5-Dec #38* Module 7 Skills & Written Exam Review Above 3 Hrs
9-Dec #39* All Skills Review All 3 Hrs
12-Dec #40* All Skills Review All 3 Hrs
43X 3

Field Internship (minimum 5 hours) and
5 complete patient assessments must be performed.
Paperwork must be submitted prior to State Examination

EMS System Orientation
Ambulance Equipment
Communications
MSP Helicopter Operations
Others as approved

If you are not affiliated with a Maryland Fire or Ambulance Company or Service, there will be a separate charge to take the Maryland State Certifying Examination. Also, if you are not affiliated with a Maryland Company, you will not get a "Pocket Card". You will receive a Letter of Recognition from the State that you have successfully passed your written and practical examinations.

State Written Examination

State Practical Examination

b. Evidence IA programs (certificate and/or degree programs) require non-technical courses of study; e.g. ethics, policy, and business.

Point Value: 5 points

SUBMISSION:

Non-technical courses are found in the Networking Technology Certificate:

ACC 101 Principles of Accounting I

ACC 102 Principles of Accounting II

STU 106 Professionalism in the Workplace

BUS 145 Customer Service

Certificate
 Information Systems Technology
 Networking Technology

This program is for the student interested in a career in networking concepts. Major concentration will be network fundamentals, design and management, troubleshooting and operating systems. Classes are conducted in hands-on labs. Currently, three national certifications are a part of this option: A+®, CISCO®, MSCA® (Microsoft Certified Systems Administrator) Certification.

Program Requirements 34 Credits

IST 101 Basic Keyboarding.....	1
IST 150 PC Tech: Repair and Troubleshooting.....	3
IST 151 PC Tech: Operating Systems.....	3
IST 154 Networking Basics.....	3
IST 155 CCNA1: Network Fundamentals.....	4
IST 156 CCNA2: Router Fundamentals.....	4
IST 255 CCNA3: Advanced Routers.....	4
IST 256 CCNA4: WAN Fundamentals.....	4
IST 260 MCSA/E: Windows Professional.....	2
IST 261 MCSA/E: Windows Server.....	3
IST 264 MCSA/E: Managing a Windows Network.....	3
Electives 7 Credits	
Approved courses are listed below.	
ACC 101 Principles of Accounting I.....	(4)
ACC 102 Principles of Accounting II.....	(4)
IST 103 Presentation Software.....	(1)
IST 109 UNIX/Linux Operating System.....	(3)
IST 120 Web Publishing.....	(1)
IST 132 Introduction to C and C++ Programming.....	(3)
IST 166 Computer Forensics I-Principles and Practices.....	(3)
IST 173 Database Fundamentals.....	(3)
IST 202 Systems Design and Analysis.....	(3)
IST 262 MCSA/E: Windows Network Infrastructure.....	(2)
IST 263 MCSA/E: Windows Active Directory.....	

(2)
 IST 266 Computer Forensics II—Investigations Practices..... (3)
 IST 269 Internship
 I.....
 (3)
 STU 106 Professionalism in the
 Workplace..... (1)
 OR
 BUS 145 Customer
 Service..... (1)
 Certificate
 Requirement..... 41
 This certificate must be completed within four years because of constantly
 changing
 technology. Students who do not complete within four years will fall under
 the latest

c. Availability of non-credit/credit professional development courses in IA (e.g. First responders, K-12 teachers)

Point Value: 5 points

SUBMISSION:

HCC Fall Faculty Development Workshop: Steve Shank, Trudy Gift, Karen Weil-Yates conducted workshop to HCC faculty. Topics included: general computer interests, including viruses, malware, secure storage and metadata. Faculty in attendance: 25

WEB 101 - Web Design I: Course content includes secure form validation guidelines. Students: 20 This course is taught as both credit and non-credit.

Students will learn fundamental design techniques of the web including graphics, HTML, JavaScript, rollovers, publishing with FTP and tables-based design. Dreamweaver will be the primary software used and students will learn to manage website's use templates, library items and gain a general understanding of the Dreamweaver design and coding environment. This course will serve as an introduction to Internet technologies used to support browsing, file transfers, e-commerce and user security. Steps will be taught on selecting and configuring software to support these activities. Other topics will include standards, accessibility (508), internet research and intellectual property rights as they relate to web content.

WEB 215 - Interactive Media: Course content includes secure form validation guidelines. Students: 20 This course will focus on Flash and other multimedia used on the web including video, sound, interactive media, forms, animation and JavaScript as well as integration into a website. Animation, Internet gaming, interactive design and online entertainment will be covered as well. Students will learn how to design for the Internet, mobile phones, palmtop screens, web TV as well as consideration for future technologies.

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4. IA Outreach: The academic program must demonstrate a strong collaboration with business, industry, government, and the local community.

Overall Point Value: 4 minimum/10 maximum

a. Evidence provided in the form of a Strategic Plan and/or general IA Awareness Program description (example: flyers, letters from sponsors, etc), and/or workshop accomplishments. (For example: sponsorship of workshops for K-12, senior citizen groups, community colleges, technical schools, state homeland security, first responders, industry,

etc.)

Point Value: Up to 10 points

SUBMISSION:

Evidence provided in the form of a Strategic plan and/or general IA Awareness Program description (example: flyers, letters from sponsors, etc), and/or workshop accomplishments, (For example: sponsorship of workshops for K-12, senior citizen groups, community college, technical schools, state homeland security, first responders, industry, etc.)

From 2006 to 2009, Continuing Education, under the direction of Jack Drooger, offered biannually "Computer Safety Seminar" for the home computer user.

These sessions were one hour in length. This seminar was offered to the community. See PowerPoint file below to view content of seminar. (outline of text)

Computer Safety Seminar
Hagerstown Community College

Jack Drooger

Technology Training Manager

One Hour Agenda

What are my risks on the Internet?

Don't stop visiting the library because it's in a bad part of town!

How can I protect myself?

Three step self-help to better security!

Informational web sites

Who to alert, how to report!

Cyber Security Risks

Online theft and scams

Loss of personal or financial information

Browser Hijacking

Compromised computer (virus or worm)

Unknowingly transmit Spam or "denial-of-service" attacks

Loss of Internet access!!

Malicious Web Traffic - Statistics

Spam

77.8 percent

Viruses

One in 112.9 emails in contained malicious software

Phishing

One in 203.7 emails comprised a phishing attack

Phishing Sample - Easy to Spot

Phishing Sample - Camouflaged

Phishing Sample - Revealed

How Do I Protect Myself?

Step 1: Use passwords to your advantage

Step 2: Use technology to your advantage

Step 3: Use common sense to your advantage

(Be a smart web citizen!)

Use Passwords to Advantage

Choose strong passwords

At least 8 characters long

Mix letters and numbers

Add an uppercase letter

Use non-alpha characters

Example 1

Bad: flintstone
Better: Fllnst0ne=
Use Passwords to Advantage
Example 2
ə Jack be nimble, Jack be quick
ə Jack jumped over the candlestick
Becomes: Jbn,JbqJjotc
Need to write a password down?
Keep in a secure place
Use password encryption products
Use Technology to Advantage
Blocking bad people on the outside!!
Firewalls
Hardware or software? Yes!
Windows (or Microsoft) updates
Manual or automatic?
Other software updates
Vary depending on vendor
Use Technology to Advantage
Blocking bad people on the inside!!
Anti-virus software
Typically stops virus attachments in e-mails or infected applications
Examples: Norton, McAfee
Anti-spyware/adware
Intercepts or removes components pushing product ads or spying on user habits
Backup (archive) important information
Use Common Sense To Advantage
Social engineering is an attack method that makes you act like a virus!
Do not open unknown e-mail or attachment
(Does your boss really "love" you?)
Do not click just because the pop up or page promises fabulous riches!
Never send any sensitive information via e-mail (known as plain text)
Example: SS#, passwords, bank account
The Famous Nigerian Scam
So I've Been Scammed?
What next?
Alert financial institutions (credit cards, banks)
Plug the gap - make sure technology is scrubbed free of virus or spyware
Contact local law enforcement agencies
Report to the Internet Crime Complaint Center
www.ic3.gov

Example of Reporting Phishing

Resources on the Web

Thanks for Attending!!

Questions?

301-790-2800 x453

Jack_d@hagerstowncc.edu

Our goal for the future is to offer seminars addressing Information Assurance to employees in industry.

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5. IA Faculty: Faculty assigned specifically to teach and/or develop IA

courses/curricula/modules.

Overall Point Value: 11 minimum/15 maximum

a. Identify by name faculty member with overall responsibility for the IA instructional program. Provide evidence, i.e. verification letter and/or job description.

Point Value: 5 points (required)

SUBMISSION:

Steve Shank, senior tenured full-time faculty, is designated as the Lead Instructor for the Networking Technology program. He was also instrumental in achieving mapping to the NSA standards. Steve has guided the curriculum for the Networking Technology program and Computer Forensics program.

Steve is currently a student at Captitol College earning a master's degree in Information Assurance. He has completed the following courses: Network Systems Security Concepts, Internal Protection, Vulnerability Mitigation, Malicious Software, Secure Info Transfer & Storage, Applied Wireless Network Security, Computer Forensics & Incident Handling, Legal Aspects Computer Security, Complementary Security. He is currently enrolled in Security Risk Management. He has two more classes to complete: Wireless Security, Perimeter Projection.

Annual Professional Development Plan FY: 2009-2010
Faculty

Section 1

Name Rank Tenured? Years of Service Department Division
Stephen Shank Associate Yes 9 IST TCS

GOALS / PURPOSES AND OUTCOMES

Section 2

Goals Outcomes Faculty Duty and
Responsibility

(1-10) Long Term /
Short Term

(1) Update technical skills in networking and security concepts Attend seminar or workshop offered in networking or security topics

1, 5, 8 Short

(2) Continue coursework in network security program

Enroll in network security course

1, 5, 8 Long

(3) To make the learning process more interactive Utilize case studies, and group projects in at least 50% of my upper division classes

1, 5 Short

(4) To participate in curriculum review and revision with the rest of IST faculty and advisory group.

Network/security curriculum for both first and second year students is revised and ready for implementation for Fall 2010.

2, 4, 5

Ongoing

(5) Perform community service

Participate as committee member for Boy Scout troop 10 Short

(6) Serve on Teaching/ Learning Committee

Participate in Teaching/ Learning Committee meetings and Shared Governance 7,

9 Short

(7) Develop/maintain articulation agreements List items of agreement between HCC and area schools 3, 4, 6 Ongoing

(8) Monitor Networking Technology and Computer Forensics HCC web page Develop updated network program items for web page. 6 Ongoing

(9) Prepare a team of students to attend (and possibly participate in) the next Cyber Defense Competition. By participating or attending the Cyber Defense Competition HCC students will be able to compare their Information Assurance skills with similar students from other institutions. 3, 4, 5 Short

NARRATIVE

Section 3

Goal

Explanation

1 The networking and security fields undergo constant change, revision and updating. It is imperative that IST professors keep abreast of the technologies. Seminars provided by the Cyberwatch consortium, of which HCC is a member, offer timely seminars and workshops.

2 As mentioned in the explanation for goal 1, one needs to maintain his/her expertise in the technology fields. Another opportunity to do so is by enrolling in graduate courses offered by schools employing professors that work in the technical fields.

3 Learning can be enhanced by varying the presentation and methods of delivery of course content. Case studies, group projects and hands-on lab work can help provide multiple learning options.= for the student.

4 The technology field is constantly being updated and the curriculum must be brought up to date as well. With the cooperative if the IST instructors and IST advisory group we can achieve this goal.

5 As troop committee member will help youth experience the benefits of the scouting program

6 Participate in Teaching/Learning Committee. Attend monthly meetings to determine agenda. Represent TCS division.

7 Create and update articulation agreements with various high schools in the tri-state area.

8 Keep the web pages that represent the network/security/forensics items fresh and with updated material

9 Include HCC students in the next Cyber Defense Competition.

Addendum to 2009/2010 Professional Development Plan

To: Stephen P. Shank, Associate Professor

From: Margaret C. Spivey, Director of Technology and Computer Studies

Information Assurance Curriculum/Networking Technology

Specific Duties as Lead Instructor for Program:

1. Faculty liaison to the CyberWatch consortium; specifically committee work and attendance at CyberWatch activities.
2. Responsible for developing information assurance curriculum.
3. Develop and maintain student learning outcomes for the information assurance program.
4. Participation in continuation and development of articulation agreements with secondary schools and four year schools.
5. Contribute to HCC 2015 Strategic Plan regarding the security component of the campus wide computer technology plan.

b. Identify by name additional IA faculty members teaching IA courses within the department that sponsors IA programs.

Point Value: 1 pt per name / up to 5 maximum

SUBMISSION:

IA faculty members (Verification can be found at:

<http://www.hagerstowncc.edu/about-hcc/contact-us/faculty-staff>):

Peter Medley (adjunct), IST 166 Computer Forensics I, IST 266 Computer Forensics II

Brenda Hernandez (adjunct), IST 160 Introduction to Security Fundamentals

Jack Drooger (adjunct), IST 155 Networking I, IST 156 Networking II, IST 255 Networking III, IST 256 Networking IV

Doug Horton (adjunct), IST 109 UNIX Linux Operating System

Trudy Gift (full time), IST 109 UNIX Linux Operating System

c. Provide evidence in the form of curriculum vitae supporting the faculty member's qualifications to teach IA. At least one IA faculty member will be expected to be professionally certified with at least one of the IA certifications listed under DOD Directive 8570, such as CISSP, CPP, CISA, CISM, GIAC, etc. or a minimum of 9 hrs of graduate coursework and/or appropriate experience in a related field could be considered in lieu of a professional certification.

Note: Can be same individual as 5a.

CISSP: Certified Information System Security Professional

CPP: Certified Protection Professional

CISA: Certified Information Systems Auditor

CISM: Certified Information System Security Manager

GIAC: Global Information Assurance Certification

Point Value: 5 points (required)

SUBMISSION:

Jack A Drooger Jr.

CERTIFICATIONS Microsoft Certified System Administrator

- Windows 2000

Microsoft Certified Desktop Support Technician

- Windows XP/Office 2003

Microsoft Certified Professional

- Windows 2000 Professional
- Windows 2000 Server
- Windows Vista

Cisco Systems Networking Academy

- CCENT

- CCNA
- CCAI

CompTIA Certified Technician

- A+
- Server+
- Network+
- Security+

EMPLOYMENT

August 1995 - Present Hagerstown Community College IT Training Coordinator

- Manage 100 plus open enrollment, contract, and vocational training classes per semester for Continuing Education in the areas of computers, trades, and transportation

- Provide student and faculty support for credit classes in the Technology and Computer Studies division

- Created training partnerships including:

Cisco Systems Networking Academy

CompTIA Education-to-Careers+ Program

- Manage IT testing center and partnerships with VUE and Prometric

May 1994 -August 1995 Hagerstown Business College Instructor

- Taught a variety of computer courses

- Served as consultant for hardware upgrades in IBM PC labs and consulted on computer automation of college library.

January 1993 - Present Health Awareness Associates Co-owner

- Self employed teaching adult training programs for medical, dental, and community groups in CPR and first aid.

April 1989 - September 1993

The Library Corporation Project Manager

- Implemented CD ROM based computer automation projects ranging from single library to state-wide library loan databases

- Served as Novell LAN administrator

- Provided help desk support to internal and external clients

July 1976 - March 1989

WCRH Radio Announcer/Public Affairs Director

- On air announcer

- Director public affairs broadcast production including FCC required documentation

EDUCATION Hagerstown Junior College Fall 1977 - Spring 1979

- Associate Arts degree in Communication.

Shippensburg University Fall 1979 - Spring 1980

- Continuing studies in Radio, TV, and Film.

Brenda Hernandez

1331 Appletree Court

Frederick, Maryland 21703

(240) 731-2807

hernandezab@comcast.net

Linkedin profile:

<http://www.linkedin.com/in/blhernandez>

REFERENCES:

On request

Objective

To utilize my security clearance; training and education; and experience in customer service and computer sciences to provide support services in IT management.

Employment History

Tier II Service Desk Technician (Break/Fix)

July 2009 - Present, Pentagon Renovation and Reconstruction, Pentagon, Washington, DC

October 2009 - Present Advanced Systems Development

July 2009 - October 2009 Chronos Systems Incorporated

- Forward deployed Tier II technician responsible responding to multiple sites and numerous clients seeking assistance addressing a wide range of computing and communication requirements.
- Receive requests for assistance or installation via walk-ins, inbound calls or Remedy ticket assignments. Tickets are properly triaged, updated and tracked until escalated or resolved.
- Reviewed assigned or initiated tickets for adequacy in problem description, detailed case notes and problem resolution fields.
- Approved and installed hardware or software change requests.
- Using SMS, remote connected to desktop or laptop computers to resolve issues (access, connectivity, settings, application issues, etc.). Arrange an appointment with the customer at their office when SMS was not available or not sufficient to assist the customer.
- Scheduled appointments with customers and performed repairs and installations consistent with contracted Service Level Agreements.
- Manage and troubleshoot asset and customer accounts using Active Directory
- Configured or troubleshoot a wide range of products, to include Microsoft Exchange mail, Outlook, and OWA 2007/2003, Internet Explorer, Mozilla Firefox, printers, Citrix, VPN, and Blackberrys/Windows Mobile devices.
- Troubleshoot and corrected issues with desktop or laptop network connectivity (DHCP, DNS, WINS, and Wireless).
- Installed, configured, customized, troubleshoot and utilized Microsoft products that included Windows XP and Vista, Microsoft Office 2003 and 2007, Visio and Project. Also installed and configured Adobe product suites that included Acrobat 9.0 Standard and Professional, Adobe Web Premium and Photoshop.
- Installed, configured, troubleshoot and utilized Microsoft Applications (MS Project, MS Office, Outlook/Exchange, Internet Explorer, MS Windows 2000, and XP) as well as several customized databases, AutoCad, MicroStation, Premivera, and Adobe suites, and many more.
- Image and re-build desktops and laptops as needed for diagnostic or initial issue purposes using Ghost and SysPrep.

Senior Analyst, Program

March 2009 - July 2009, General Dynamics Information Technology, Pentagon, Washington, DC

- ♣ Review existing forms, reports and procedures. Confer with management and users about format, distribution, and purpose to identify problems and develop improvements. Design, evaluate and recommend changes of forms and reports. Document findings of study and prepare recommendations for implementation of streamlined systems, procedures, or organizational changes.

- ♣ Interview personnel and observe unit functions, work performed, and methods, equipment, and personnel used. Analyze data gathered and develop solutions or alternative methods of proceeding.
- ♣ Prepare documentation and train co-workers in the use of new forms, reports, procedures or equipment, according to organizational policy.

DHS/ICS Help Desk Team Leader: Technical Support Analyst II
 October 2006 - December 2008, Help Desk, Integrated Communication Solutions, Inc, Frederick, Maryland

- ♣ Team supervisor responsible for ensuring adherence to ICS/DHS policies concerning management of requests for technical assistance, requests for accounts; and equipment condition and building access monitoring.
- ♣ Drafted "User Creation, Modification, and Deletion Procedures" manual for management approval.
- ♣ Responsible for the upkeep of the Help Desk SharePoint sites used to distribute policies and procedures.
- ♣ Update hard copy Master Book as policies are changed or created.
- ♣ Initiate and track staff usage of training accounts for TestOut Computer Based Training software.
- ♣ Run monthly call center usage and response reports using Crystal Reports software.
- ♣ On-call Junior Subject Matter Expert responsible for resolution of Tier II issues or transfer unresolved issues to vendor for two DHS Applications.
- ♣ Receive requests for computer hardware, software, or peripherals to include Cisco VPN connections, office and home wireless connections, and Blackberry mobile phone assistance via phone, email, or customer walk-in.
- ♣ Used Remote Desktop (and Desktops) to troubleshoot connection issues, failed services, and application failures and requests for personalized customization.
- ♣ Verbally guide customer through the steps required to resolve issues associated with logging in or using assigned computers and software packages.
- ♣ Create work ticket for assistance through the Remedy ticketing system; verify that customer has no open tickets. Follow progress of ticket until it closes after issue has been resolved.
- ♣ Create, delete, edit or manage user accounts for 3 software systems (2 government) used world-wide to include unlocking accounts and resetting passwords. Accounts were also created and maintained in Active Directory and LDAP directory.
- ♣ Responsible for ensuring that all servers, databases and applications function as expected when the weekly remote reboot of network application and database has completed. Apply remedial action when services fail to start.
- ♣ Image and re-build desktops and laptops as needed for diagnostic or initial issue purposes using Ghost and SysPrep. Install, upgrade or remove hardware and software.
- ♣ Review backups and server services event logs for errors and potential problems.
- ♣ Installed, configured, customized and utilized Microsoft products that included Windows XP and Vista, Microsoft Office 2003 and 2007, and Project.

Also installed and configured Adobe products that included Acrobat 7.0 Standard and Professional

Administrative Assistant

July 1999 - October 2006, Joint Vaccine Acquisition Program, Product Management Office. Frederick, Maryland

- ♣ Independently provide clerical and administrative support for supervisors and staff.

- ♣ Receive, screen and direct phone calls, incoming mail and visitors to the proper individuals. Prepare letters and packages for outgoing shipment to include express and signature services.

- ♣ Schedule meetings to include reserving conference areas and notifying attendees of final arrangements.

- ♣ Order and maintain office supplies and publications.

- ♣ Prepare correspondence and forms.

- ♣ Use computer with several types of software packages, fax, scanner, digital scanner, Label Writer, and copier daily.

- ♣ Assist staff in resolving various computer and document processing issues

Education

- November 2007 - AGD November 2010, Western Governor's University Bachelor Degree, Information Technology - Database Administration

- July 1, 2006, Kaplan University, Boca Raton, Florida.

Associates of Applied Science in Computer Information Systems, GPA 4.0

- August 2000 - June 2001, Frederick Community College, Frederick, Maryland.

Microsoft Certified Systems Engineer, Network + training

- July 2002

ACQ 101, Fundamentals of Systems Acquisition, DAU)

Other Experience (summary)

- Adjunct Professor, Security +, Hagerstown Community College

- Volunteer Instructor of Basic Computing and MS-Word/Excel classes for Goodwill Industries.

- 24 years experience in clerical and administrative support in combination with assisting co-workers with common computing issues.

Licenses and Certifications:

- Vista MCP (Microsoft Certified Professional) (12/02/09)

- Sun Certified Java Associate (10/05/09)

- CompTIA Security+ certification (09/22/08)

- CompTIA Network+ certification (07/17/08)

- CompTIA Project+ certification (03/27/08)

- CIW5 Foundations (12/19/07), Database Design Specialist (06/04/09), Site Designer and Professional (06/04/09) certifications

- CompTIA A+ certification, expired (02/2000)

- Secret Security Clearance May 16, 2002

Honors and Awards:

Sustained superior quality salary increase October 2007

Kaplan University President's List (4.0 GPA) for Terms 1 through 10

Member: Alpha Beta Kappa National Honor Society and Epsilon Delta Pi,

National Honor Society of the Computer Sciences, Alpha Tau Chapter

Kaplan University Student Mentor and Student Tutor

Customer Service Excellence Award January 1993

Sustained Superior Quality Salary Increase 1990 - 2004

Additional Education:

Medical Specialist-91B10, AMEDD, Fort Sam Houston, TX, Sep 81
Military Correspondence/Typing I and II, Camp Casey, Korea, May 83
Engineering Quality Control and Inspection, Fort Drum, NY, Jun 86
Army UPH Management Course, Heidelberg, GE, May 91
Secretarial Practices, BOCES of Jefferson County, Watertown, NY, May 94
Additional Computer Skills:
WordPerfect Suite; Adobe Photoshop; Print Shop; Print Master; ScanSoft
Visioneer; Paperport; Roxio Easy CD Creator 5 - 8 Basic and Platinum; Adobe
Acrobat 4 - 8; Visio; VB.Net Studio; Java versions through 1.6; Open Text
Live Link Integrated Digital Environment; VMWare, Virtual PC.

Full Name : Douglas K. Horton
Employee ID #: 400069
Work Email : Douglas.K.Horton@uscg.mil
Office Phone : 304.264.2645
Cell Phone : 301.991.8699

Division:
Systems Engineering Solutions (SES)

Account:
Dept. Homeland Security

Customer Segment:
US Coast Guard

Stanley Labor Category:
Functional Area Manager

Security Clearance Held:
Top Secret

Education/School/Year Completed
A.A. Computer Science and Technology MONTGOMERY COLLEGE 1989
B.S. Computer and Information Science University of Maryland 1994
M.B.A. FROSTBURG STATE UNIVERSITY Currently on hold

Professional Certifications/Granting Organization/Year Attained

HPUX Related Courses Hewlett-Packard Company 1986
Introduction to Relational Database Management Systems Course Oracle
Corporation 1987
Extended Relational Analysis (ERA) Course Relational Systems Corporation 1987
Extended Relational Analysis (ERA) Workshop Relational Systems Corporation
1987
GDOC Search and Rescue Workshop National Search and Rescue School 1996
Supervisor Training Stanley Associates, Inc. 2006
Managing IT Porjects George Washington University 2007

Technical Skills/Level of Proficiency

(1=basic understanding, 2=can apply knowledge, 3=good understanding, 4=expert)

20 Years experience developing and maintaining software in a UNIX environment using "C", "C++" ,Perl, various UNIX shell and FORTRAN" 4

20 years experience using ORACLE as the relational database management system 4

10 Years experience maintaining software in a NT environment using "C", "C++" 4

10 years experience developing software for user interface in a Motif and X Windows environment 4

Oracle Forms 3

Microsoft Word, Microsoft Excel and Microsoft Project Plan. 3

11 years experience managing small development and maintenance teams 4

Relevant Experience

United States Coast Guard, Operations Systems Center Kearneysville, WV
10/1996 - Present STANLEY ASSOCIATES, INC.,

Functional Area Manager - Amver EDS/SLDMB 10/2007 - Present

Amver EDS and SLDMB systems are in a Brown Out mode because of budget cuts. All three systems are to be maintained only. No new development will take place until the budget is rectified and additional staff members added to the teams.

- Prepared the original business case white paper including possible alternatives for the Amver Modernization project.
- Instrumental in preparation of the final white paper and brief to the OSC command

Functional Area Manager - Amver CASP 02/2007 - 10/2007

Duties:

- Prioritize, manage and mentor the team on day-to-day operations, problems and ongoing releases.
- Hold team meetings with the Government Project Officer and Contractor Division Director for all systems once a week to review work loads, problems, issues and update project plans.
- Interface with the with the SAR Program Manager and Government Project Officer on specific issues including the budget, data calls and/or problems.
- Prepare Monthly Progress Reports for the Command Level briefs each month
- And System Management Meeting reports for the Division Level briefs each month.
- Review and evaluation of team members.
- Prepare Microsoft Project Plans for high level SCR's
- Back fill for team members when they are out sick and/or PTO leave.
- 7/24/365 Continuous DA coverage - on call and last resort.
- Amver 101 Brief to Search and Rescue School and OSC visitors.

SAR Systems Technical Manager 02/2007 - 05/2003

Briefing:

- US Delegate Adviser to the IMO (INTERNATIONAL MARITIME ORGANIZATION) for COMSAR 9 - 2005, COMSAR 10 Working Group on LRIT (Long Range identification and Tracking) and COMSAR 10 - 2006, in London England. Attached is the letter from Rear Admiral Hewitt

- Prepared Brief for Amver LRIT IMO/COMSAR meeting
- LRIT Task-12 research for the COMSAR 10 Working Group
- Prepared and gave the Amver brief for the Expert Ship reporting system 2005 meeting.

Design and Implementation:

- Migration of the Amver code from the PA-RISC HP servers to the new Itanium HP servers.
- Initial design, technical correspondence with FNMOC (Fleet Numerical Metrological Oceanography Center) to receive the shiplist report using the IMO number as the vessel identification number. This would dramatically reduce the NICSD reports. Also to receive the shiplist file four times a day instead of the previous twice a day.
- Initial design, technical correspondence with Lloyd's Register Fairplay, manage the workload and implementation for the new Lloyds data.
 - o All code changes to the server side.
 - o Addressed specific problems on the client side.
- Initial design Phase 1 and 2 for both Amver and CASP, manage the workload and follow through for the SARDRBC machine.
 - o Final phase - simulate the SARDRBC as Amver and CASP production machine.
 - o SARDRBC - Recovery write up.
- Initial design Phase for the Amver and CASP CDRL database and the process to populate them, manage the workload and follow through.
- AMRAP ReWrite the initial how to phased approach.
- LRIT Proof of concept with MAI flagged vessels via PF service provider.
 - o Research on the above, the stats were forwarded to the MDA folks.
- Letter of appreciation from Gordon Shillito

Problem Solving:

- Identified MARAD (VISA) problem addressed a workaround before going to production
- Identified Surpic problem when the latitude is = 0
- Auto-FNMOC script mentoring Duane through the process.
- Resolution of the GANTSEC SURPIC II problem.
- Initiated a workaround process to stop AUSREP message reports creating an infinite loop
- Supplied the University of Delaware Marine Research Division with daily onplot data for the Gulf of Mexico pre and post Katrina.
- Technical correspondence with the AT&T representative in New York City to route Amver Fax's to the OSC instead of the AMR fax number in NYC.

Functional Area Manager Amver 04/1999 - 05/2003

- Continuous improvement of Amver, bringing Amver's parsing language, architecture and communications into the 21st Century.
- The Amver Team received the attached Letter of Appreciation from the Commandant of the Coast Guard for team support provided to the search and rescue program.
- OSC Team of the Quarter April 2002
- Design and implementation of the Hermes Parser ReWrite in Perl including a three-phased approach to completion. With the roll to production of Phase III

the Amver Data Validation Staff commits ~ 30% of the total received message reports, because of our auto validation process. Attached is a congratulatory letter from Rear Admiral Johnson.

- Wrote and implemented a Korn shell process to pull and forward via email global aggregate Amver vessel information "time, lat/lon of current position and vessel type" to a Norwegian firm to be used for research on pollution and global warming. The challenge was the forwarded information had to be number of vessels and location per 1 degree cells starting at the North Pole and ending at the South Pole.
- Design and implementation of the JASREP Data Exchange via email, Amver first message report encryption process.
- Design and implementation of the FNMOC process via email, removal of the existing ftp SHIP.list file and FNMOC auto validation process.
- Problem solving keeping AUSREP message reports close to real-time, 7 day work around for sending and receiving message reports from AUSREP during a Nipernet block on Australia
- The Amver Web Page we designed and stood.
- Instrumental in removing the AmverSeas servers from the OSC Data floor.
- Various Homeland Security Support:
 - ECR 96 Hour Vessel Arrival
 - MARAD Reporting Requirement on a daily basis
 - Korn Shell Script to search and forward any message reports received by Amver for NVMC/SANS
 - Research on "NVMC/SANS "96 hour arrival notification and X-Line comments if received by Amver
 - Research and future design of Inmarsat-C polling vessel position reporting to Amver and how it will work in conjunction with the current Amver system.
 - Acting CASP FAM while Christie was on maternity leave.
 - Amver Communications conference request for Amver Surpic II Exercise on accuracy of our on plot vessels. A white paper was submitted to captain G Kinney.
 - Implemented numerous continuous improvement efforts that will alarm the Duty Analyst to potential problems before they happen.
 - TCP/IP Release, Prototype deliver system to accept AMVER message traffic via email. AmverSEAS Mailer Daemon to forward message traffic via email, SSAMPS AMVER.run workaround and AT&T modem interface which also forward message traffic via email.
 - Briefed the Japanese and other Pacific countries that have Ship Reporting systems on how AMVER process message traffic via email.
 - Surpic II Invalid position reporting, traced and identified the problem in RV/VR3 coordinated a workaround solution until the problem was solved and rolled to production.

Assistant Functional Area Manager 01/1998 - 04/1999

- Team Leader for the AMVER Y2K release from initial groundwork to roll through.
- Responsible for the testing strategy for the Y2K effort, using real data and simulating a roll through from 12/20/1999 to 03/02/2000.
- Responsible for Y2K testing and validation of Overseas.
- Coordination of dry run testing, Q/A and government testing for all AMVER applications.

Senior Systems Analyst 10/1996 - 01/1998

- Provided a UNIX shell script that would identify all variables that were date oriented. This shell script was used for both AMVER and CASP Y2K effort.
- Provided a white paper that identified the routines and specific lines of

code that had to be changed to make the module Y2K compliant. This also included the testing and the code change for every application within AMVER.

- HP UNIX System Administration and IRIS UNIX System Administration.

United States Coast Guard, Operations Systems Center Kearneysville, WV
Senior Systems Analyst 5/1996 - 10/1996 Battelle

- Provided software maintenance support for Amver system applications.
- Provided software maintenance support for Amver's RV/VR dbtools applications.
- Developed test scripts to simulate the execution of a specific AMVER background process to verify the CR changes.

NAVY TACTICAL SUPPORT ACTIVITY SILVER SPRING, MD

Team Leader/Senior Software Engineer 1/1991 - 5/1996 UIS, INC.

- Provided support for the STIMS (Shipboard Tactical Information Management System) software development project as a Team Leader for numerous in depth track analysis applications and tools, data parsing (LINK-11, OTH Gold) black box, active/passive sonar modeling application algorithms, Oceanographic, Electromagnetic and Atmospheric acoustic modeling projects.
- Responsible for the design, implementation, user interface, and algorithm modeling for Navy standard sonar systems, including creation and maintenance of the STIMS sonar databases.
- Designed and implemented an application interface that queries the database for specific tactical engagement information to be displayed in a summary format.
- Prototype and preliminary testing of the ORACLE RDBMS for the NAVY standard Propagation Loss Model database.
- Responsible for converting the above applications to a more object-oriented environment using Motif and X Windows.
- Responsible for on-site and shipboard training for STIMS Reps and NAVY personnel.
- Last Carrier Task Group Deployment for STIMS onboard the USS Theodore Roosevelt CVN-71 the spring of 1995.

NAVY TACTICAL SUPPORT ACTIVITY SILVER SPRING, MD

Senior Software Engineer 10/1983 - 12/1990 SRC, CORP.

- Designed and implemented the Sonar Opportunity Assessment (SOA) system to assist the NAVY in accessing surface and subsurface detection opportunities. Used during Operational exercises.
- Designed and implemented a generic sonar "user entered" capability used with SOA, this feature allows NATO countries to enter SONAR specifications for their own sonar systems. Used during Joint NATO Operational exercises.
- Designed and implemented the Electromagnetic Opportunity Assessment (EOA) system to assist the NAVY in accessing surface to air, and air to surface detection opportunities. This implementation included the integration of the Atmospheric environmental modules and platform/radar system databases from the Geophysical Fleet Mission Program Library (GFMPPL). This application was used during the NAVY'S participation in the Drug Interdiction Program of 1991 & 1992.

Other Relevant Experience

Hagerstown Community College Hagerstown, MD
1/1995 - Present HCC

- Adjunct Professor responsible for the course instruction of CIS/CSC 109 The UNIX Operating System.
- A Three-year board member for the Computer Information Technology Advisory Committee at HCC.
- Selected as a Technical/Peer reviewer for a new text book published by McGraw-Hill Osborne "Introduction to UNIX and LINUX". This is the text I use for my UNIX class at Hagerstown Community College.

PETER E. MEDLEY JR.
 Annapolis Police Department
 199 Taylor Ave.
 Annapolis, Maryland
 (410) 268-9000

SKILLS

Extensive experience, training and education in computer forensic investigations, examinations and courtroom testimony. Over five hundred hours of training in computer forensic investigation processes, cellular telephone investigative processes and the use of system analysis tools.

EDUCATION

Westmoreland County Community College
 Criminal Justice 68 Credit Hours 1978-1980
 Youngwood, Pennsylvania

Anne Arundel Community College
 Criminal Justice 2008-Present
 Arnold, Maryland

TRAINING - COMPUTER FORENSICS/CELLULAR TELEPHONE FORENSICS

Computer Crimes and Electronic Evidence
 Drug Enforcement Administration 24 hrs 1995
 DEA Headquarters Arlington, Virginia

Basic Data Recovery and Analysis
 National White Collar Crime Center 40 hrs 2005
 Washington, D.C.

Intermediate Data Recovery and Analysis
 National White Collar Crime Center 40 hrs 2005
 Washington, D.C.

Networks and Computer Hardware Training
 Department of Defense Computer Investigations 80 hrs 2005
 Linthicum, Maryland

Computer Incident Responder Training

Department of Defense Computer Investigations 80 hrs 2005
Linthicum, Maryland

Computer Evidence Recovery (Encase)
U.S. Secret Service 40 hrs 2005
Washington, D.C.

Forensic Computer Examination Recertification
U.S. Secret Service 40 hrs 2007
New Orleans, Louisiana

Encase Computer Forensics II
Guidance Software 40 hrs 2007
Sterling, Virginia

Advanced Computer Forensics
National Forensic Computer Institute 40 hrs 2008
Hoover, Alabama

Forensic Computer Examination Recertification
U.S. Secret Service 32 hrs 2008
Kansas City, Missouri

Forensic Computer Examination Recertification
U.S. Secret Service 32 hrs 2009
Orlando, Florida

Cell Phone Technology and Forensic Data Recovery Certification
PATC/Maryland Police Training Commission 35 hrs 2009
Sykesville, Maryland

TRAINING - GENERAL POLICE

Baltimore County Police Academy
Baltimore County Police Department 26 Weeks 1986
Dundalk, Maryland

Critical Incident Training for Supervisors
Annapolis Police Department 8 hrs 2005
Annapolis, Maryland

TRAINING - POLICE TRAFFIC INVESTIGATIONS

Radar Speed Enforcement
Annapolis Police Department 72 hrs 1988

Breathalyzer Training
Maryland State Police 40 hours 1989
Pikesville, Maryland

Advanced Accident Investigation
Maryland State Police 80 hours 1989
Pikesville, Maryland

Accident Reconstruction
Maryland State Police 80 hours 1990
Pikesville, Maryland

Pedestrian Accident Reconstruction
Prince Georges County Police Department 40 hrs 1990
Landover, Maryland

TRAINING - CRIMINAL INVESTIGATIONS

Basic Criminal Investigation Training
Prince Georges County Police Department 40 hrs 1993
Landover, Maryland

Homicide Investigator Training
Howard County Police Department 80 hrs 1994
Ellicott City, Maryland

Serial Sex Offender Investigation Training
Department of Justice 16 hrs 1995
Arlington, Virginia

Advanced Child Abuse Investigations
Department of Justice 24 hrs 1995
Towson, Maryland

EMPLOYMENT

Annapolis Police Department, Annapolis, Maryland - Feb. 1986 to Present
Detective Corporal, Forensic Computer and Cellular Telephone Examiner,
assigned to US Secret Service Electronic Crimes Task Force, Baltimore Field
Office (2003-Present)
Detective Corporal, Crimes Against Property Section, Criminal Investigations
Division (1997-2003)
Detective Corporal, Crimes Against Persons Section, Criminal Investigations
Division (1992-1997)
Patrolman First Class, Uniformed Patrol Division, (1990-1992)
Patrolman First Class, Accident Reconstructionist/Motorcycle Officer, Traffic
Safety Unit (1989-1990)
Patrolman, Uniformed Patrol Division, (1986-1989)

Pennsylvania Army National Guard, Greensburg, Pennsylvania - Mar. 1980 to
Feb. 1986
Staff Sergeant, 1st Bn 110th Infantry, 28th Infantry Division, Administration
and Training NCO

United States Navy, Groton Connecticut - Jun. 1972 to Aug 1979
Machinistmate First Class, Submarine Qualified, USS Will Rodgers (SSBN 659),
(1976-1979)
Machinistmate Second Class, Submarine Qualified, USS Pargo (SSN 650), (1972-
1976)

Hagerstown Community College, Hagerstown, Maryland - January 15, 2009 to Present
Adjunct Instructor for Basic Computer Forensics and Advanced Computer Forensics

ACHIEVEMENTS AND AWARDS

Medal of Honor (Annapolis Police Department)
Heroism Award (Annapolis Fire Department)
Certificate of Meritorious Service, three awards (Annapolis Police Department)
Meritorious Unit Commendation, two awards (Annapolis Police Department)
Secret Security Clearance (U.S. Navy/U.S. Army)
Expert Witness - Anne Arundel County Circuit Court, Annapolis Maryland
Expert Witness - Dauphin County Court, Harrisburg, Pennsylvania

FRATERNAL ORGANIZATIONS

International Association of Fraud Investigators, Board of Directors, Mid Atlantic Chapter
Maryland Association for Bank Security
International Association of Property Crime Investigators

Stephen Shank
8893 Kuhn Road
Greencastle, Pennsylvania 17225
(717) 597-5871
shanks@hagerstowncc.edu

Education Capitol College F 2007 - Su 2010
Will earn MS in Information Assurance summer 2010
Completed: Network Systems Security Concepts, Internal Protection, Vulnerability Mitigation, Malicious Software, Secure Info Transfer & Storage, Applied Wireless Network Security, Computer Forensics & Incident Handling, Legal Aspects Computer Security, Complementary Security
Currently enrolled: Security Risk Management
To Complete: Wireless Security, Perimeter Projection

Shippensburg University 1990-1993
M Ed Computer Education

Towson State University 1971-1974
BS Mathematics

Hagerstown Community College 1969-1971
AA Math/Science

Experience Hagerstown Community College 2000-present
Associate Professor - Information Systems Technology
Developed courses in Network Concepts, Advanced Networking, TCP/IP, Security Fundamentals, Network Security, Wireless Fundamentals,

Computer Forensics, Discrete Mathematics
Committees: Curriculum, Teaching & Learning, Distance Education
Seminars attended: Cell phone forensics, Ethical Hacking, Computer forensics, Wireless Concepts, Case Studies, Remote labs, Security, Blackboard

ARC of Washington County 1999-2000
Network Administrator/Computer Support - responsible for administering business network for fifteen users and provide support for fifty stand alone computers on site and off site.

Hagerstown Community College 1993-1999
Manager of User Support Services - responsible for maintaining networked computer labs (250 computers) and employee networked computers (250 computers)

Washington County Hospital 1991-1993
Computer Specialist - responsible for migrating network using dumb terminals to Windows based client in Novell network (1200 users) and maintaining network. Also responsible for pc training, office productivity and emails.

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6. Practice of IA encouraged throughout the Institution: The academic program demonstrates how the institution encourages the practice of IA, not merely that IA is taught.

Overall Point Value: 8 pts minimum/20 maximum

a. Provide a link to the institution IA security plan and/or policies

Point Value: Up to 5 points

SUBMISSION:

HCC Policies: HCC Acceptable Computer Usage Policy, Identify Theft Prevention Program with Amendment, HCC Strategic Goals, Mission and Vision Statements.
HAGERSTOWN COMMUNITY COLLEGE
Acceptable Use of Computer Systems & Networks
Policy Statement

Hagerstown Community College (HCC) will ensure that computer systems and networks are used appropriately in the conduct of its educational mission, vision, and values. Computer systems and networks refer to all hardware, software, data, communications networks, and any other components connected to or associated with these systems. Security controls must be sufficient to uniquely identify and authenticate each user to the College computer systems and networks in order to protect valuable information assets. Employees who are identified by the area Administrator and/or the President who have rights and access privileges to restricted student and employee records will adhere to a strict code of confidentiality.

Computer systems and network access are provided by HCC for use in the direct academic environment and in an administrative support functions. Use is restricted to appropriate academic, research, and employment-related activities and is governed by all College policies, federal, state, and local laws.

Files and e-mail messages created or stored on College information systems are the property of the College. Users are cautioned that they should not expect files or e-mail messages stored on College equipment to be private. The College may monitor, audit, and review files, directories, and communications to maintain system integrity and to ensure that employees and students are using the system in accordance with College policies and applicable federal and state laws.

Access Rights

HCC provides access to the computing and communications systems to support the educational mission of the College. These systems include individual terminals, personal computers, laptops, workstations, servers, whether free standing or connected to networks. HCC grants use of these systems to HCC students, faculty, staff, and others by special arrangement. HCC also reserves the right to withdraw this privilege at any time.

Standards

Just as with any other resource vital to the instruction, research, and administration of the college, there is an expectation of ethical conduct by all users of these systems. HCC expects users to apply standards of normal academic and professional ethics as well as considerate and economical conduct while using these systems. All other applicable College regulations and policies, Internet regulations and applicable federal, state and local laws apply to use of these systems.

Users are expected to:

- Use resources only for authorized purposes.
- Attach or enter the information systems only through an authorized HCC account.
- Protect your user ID's and password from unauthorized use. You are responsible for all activities on your User ID or that originate from your system.
- Access only information that is your own, that is publicly available, or to which you have been given authorized access. Users having rights and access to restricted student and employee records will adhere to a strict code of confidentiality.
- Use only legally obtained licensed data or software in compliance with license or purchase agreements and federal copyright or intellectual property laws.
- Be considerate in your use of shared resources. Refrain from monopolizing systems, overloading networks with excessive data, degrading services, or wasting computer time, connect time, disk space, printer paper, or other resources.
- Limit the use of HCC computer systems and networks to activities related to the mission of the College, including learning, teaching, research and service.
- Respect the privacy of others by refraining from inspecting, broadcasting, or modifying personal data files without the consent of the individual or individuals involved.

In addition, users must NOT:

- Use HCC computer systems and networks as a means of unauthorized access to accounts or systems inside or outside of the College.

- Use computer systems and networks to act in what may be perceived of as an obscene, offensive, intimidating or harassing manner.
- Use computer programs to decode passwords or access control information.
- Attempt to circumvent or subvert system or network security measures.
- Engage in any activity that may be purposefully harmful to systems or to any information stored on the system. This includes, but is not limited to creating viruses, disrupting services, or damaging files or making unauthorized modifications to data.
- Make or use illegal copies of copyrighted materials or software, store such copies on the College system, or transmit them over the College network.
- Use the computer systems and networks for personal gain.
- Use computer systems and networks to solicit or proselytize for commercial ventures, religious or political causes, outside organizations, or other solicitations.
- Waste computer systems and network resources. This includes, but is not limited to, intentionally placing a program in an endless loop, printing excessively, or by sending chain letters or unsolicited mass mailings.

Enforcement

Hagerstown Community College considers any violation of this policy to be a serious offense. HCC reserves the right to copy and examine any files or information residing on College computer systems and networks allegedly related to unacceptable use and to protect its systems and networks from events that threaten system integrity.

Violators are subject to disciplinary action as prescribed in the Student Code of Conduct and the Employee Handbook. Offenders may also be prosecuted under applicable federal, state, and local laws.

Information Disclaimer

Individuals using computer systems owned by Hagerstown Community College do so subject to applicable laws and College policies. Hagerstown Community College disclaims any responsibility and/or warranties for information and materials residing on non-college systems or available over publicly accessible networks. Such materials do not necessarily reflect the attitudes, opinions, or values of Hagerstown Community College, its faculty, staff, or students.

HAGERSTON COMMUNITY COLLEGE
Identity Theft Prevention Program

PROGRAM ADOPTION

Hagerstown Community College developed this Identity Theft Prevention Program (program) pursuant to the Federal Trade Commission's (FTC) Red Flags Rule, which implements Section 114 of the Fair and Accurate Credit Transactions Act of 2003. This program was developed with approval of the Hagerstown Community College Board of Trustees. After consideration of the size and complexity of the College's operations and the nature and scope of the College's activities, the Hagerstown Community College Board of Trustees determined that this program was appropriate for the College, and therefore approved this program on June 23, 2009.

DEFINITIONS AND PROGRAM

Red Flags Rule Definitions Used in this Program

1. Identity theft is a fraud committed or attempted using the identifying information of another person without authority.
2. A Red Flag is a pattern, practice, or specific activity indicating the possibility of identity theft.
3. A covered account includes all student accounts that are administered by the College.
4. Program Administrators are the individuals designated with primary responsibility for oversight of the program. The program administrators will be the Director, Finance and the Director, Information Technology.
5. A Committee under the direction of the Program Administrator will be established to carry out the program. In addition to representation from information technology, other members of the committee will be from the areas of Student Affairs, Continuing Education, Campus Police and Finance.
6. Identifying information is any name or number that may be used, alone or in conjunction with any other information, to identify a specific person, including: name, maiden name, address, telephone number, social security number, date of birth, government issued driver's license or identification number, alien registration number, government passport number, employer or taxpayer identification number, student identification number, credit card information, or computer internet protocol (IP) address.
7. Implementation will occur on or before August 1, 2009.

Fulfilling Requirements of the Red Flags Rule

Under the Red Flags Rule, the College is required to establish an Identity Theft Prevention Program tailored to its size, complexity and the nature of its operation. The program must contain reasonable policies and procedures to:

1. Identify relevant red flags for new and existing covered accounts and incorporate those red flags into the program and incorporate existing policies and procedures into the program;
2. Detect red flags that have been incorporated into the program;
3. Respond appropriately to any red flags that are detected to prevent and mitigate identity theft; and
4. Ensure the program is updated periodically to reflect changes in risks to students or to the safety of the student from identity theft.

IDENTIFICATION OF RED FLAGS

In order to identify relevant red flags, the College considers the types of accounts that it offers and maintains, methods it provides to open its accounts, methods it provides to access its accounts, and its previous experiences with identity theft. The College identifies the following red flags in each of the listed categories:

A. Alerts, Notifications and Warnings from Consumer Reporting Agencies or other Organizations

1. Report of fraud;
2. Notice or report from a credit agency of a fraud or active duty alert for an applicant;
3. Notice of address discrepancy; and

4. Indication from a credit report of activity that is inconsistent with an applicant's usual pattern or activity.

B. Suspicious Documents

1. Identification document or card that appears to be forged, altered, or inauthentic;
2. Identification document or card on which a person's photograph or physical description is not consistent with the appearance of the person presenting the document;
3. Other document with information that is not consistent with existing student information; and
4. Application for service that appears to have been altered or forged.

C. Suspicious Personal Identifying Information

1. Identifying information presented that is inconsistent with other information the student provides (example: inconsistent birth dates) or with information that is on file for the student;
2. Identifying information presented that is inconsistent with other sources of information;
3. Identifying information presented that is the same as information shown on other applications that were found to be fraudulent;
4. Identifying information presented that is consistent with fraudulent activity (such as an invalid phone number or fictitious billing address); and
5. Social security number presented that is the same as one given by another student.

D. Suspicious Covered Account Activity or Unusual Use of Account

1. Change of address for an account followed by a request to change the student's name;
2. Account used in a way that is not consistent with prior use;
3. Mail sent to the student is repeatedly returned as undeliverable;
4. Notice to the College that a student is not receiving mail sent by the College;
5. Notice to the College that an account has unauthorized activity;
6. Breach in the College's computer system security; and
7. Unauthorized access to or use of student account information.

E. Alerts from Others

1. Notice to the College from a student, identity theft victim, law enforcement, or other person that the College has opened or is maintaining a fraudulent account for a person engaged in identity theft.

DETECTING RED FLAGS

Student Enrollment

In order to detect any of the red flags associated with the enrollment of a student, College personnel will take the following steps to obtain and verify the identity of the person opening the account:

1. Require identifying information as stated in the College catalog.
2. Verify the student's identity, as stated in the College catalog, at time of issuance of HCC student identification card.

Existing Accounts

In order to detect any of the red flags for an existing covered account, College personnel will take the following steps to monitor transactions on an account:

1. Verify the identification of students if they request information (in person, via telephone, via facsimile, via email);
2. Verify the validity of requests to change billing addresses by mail or email and provide the student a reasonable means of promptly reporting incorrect billing address changes; and
3. Verify changes in payment information given for billing and payment purposes.

PREVENTING AND MITIGATING IDENTITY THEFT

In the event College personnel detect any identified red flags, such personnel shall take one or more of the following steps, depending on the degree of risk posed by the red flag:

Prevent and Mitigate

1. Continue to monitor a covered account for evidence of identity theft;
2. Contact the student;
3. Change any passwords or other security devices that permit access to covered accounts;
4. Not open a new covered account;
5. Provide the student with a new student identification number;
6. Notify the program administrators for determination of the appropriate step(s) to take;
7. Notify law enforcement;
8. File or assist in filing a Suspicious Activities Report; or
9. Determine that no response is warranted under the particular circumstances.

Protect Student Identifying Information

In order to further prevent the likelihood of identity theft occurring with respect to covered accounts, the College will take the following steps with respect to its internal operating procedures to protect student identifying information:

1. Ensure that its website is secure or provide clear notice that the website is not secure;
2. Ensure complete and secure destruction of paper documents and computer files containing student account information when a decision has been made to no longer maintain such information;
3. Ensure that office computers with access to covered account information are password protected;
4. Avoid use of social security numbers;
5. Avoid storage of credit card information;
6. Ensure computer virus protection is up-to-date; and
7. Require and keep only the kinds of student information that are necessary for College purposes.

PROGRAM ADMINISTRATION

Oversight

Responsibility for developing, implementing, and updating this program lies with the Identity Theft Committee for the College. The committee is chaired by the Program Administrators who will be the Director, Finance and the Director, Information Technology. Two or more other individuals from the areas of Student Affairs, Continuing Education, Campus Police and Finance in addition to the Program Administrators comprise the committee membership. The Program Administrators or his/her designee will be responsible for ensuring appropriate training of College staff on the program, for reviewing any staff reports regarding the detection of red flags, and the steps for preventing and mitigating identity theft, determining which steps of prevention and mitigation should be taken in particular circumstances, and considering periodic changes to the program. Periodic audits of various areas will be conducted.

Staff Training and Reports

College staff responsible for implementing the program shall be trained either by or under the direction of the Program Administrators or his/her designee in the detection of red flags and the responsive steps to be taken when a Red Flag is detected. College staff shall be trained, as necessary, to effectively implement the program. College employees are expected to notify the Program Administrators once they become aware of an incident of identity theft or of the College's failure to comply with this program. At least annually, or as otherwise requested by the Program Administrators, College staff responsible for development, implementation, and administration of the program shall report to the Program Administrators on compliance with this program. The report should address such issues as effectiveness of the policies and procedures in addressing the risk of identity theft in connection with the opening and maintenance of covered accounts, service provider arrangements, and significant incidents involving identity theft and management's response and recommendations for changes to the program.

Service Provider Arrangements

In the event the College engages a service provider to perform an activity in connection with one or more covered accounts, the College will take the following steps to ensure the service provider performs its activity in accordance with reasonable policies and procedures designed to detect, prevent, and mitigate the risk of identity theft.

1. Require, by contract, that service providers have such policies and procedures in place; and
2. Require, by contract, that service providers review the College's program and report any red flags to the Program Administrator or the College employee with primary oversight of the service provider relationship.

Non-disclosure of Specific Practices

For the effectiveness of this identity theft prevention program, knowledge about specific red flag identification, detection, mitigation and prevention practices may need to be limited to the committee who developed this program and to those employees with a need to know them. Any documents that may have been produced or are produced in order to develop or implement this program that list or describe such specific practices and the information those

documents contain are considered confidential and should not be shared with other employees or the public. The Program Administrators shall inform the committee and those employees with a need to know the information of those documents or specific practices that should be maintained in a confidential manner.

Program Updates

The committee will periodically review, audit and update this program to reflect changes in risks to students and the security of the College from identity theft. In doing so, the committee will consider the College's experiences with identity theft situations, changes in identity theft methods, changes in identity theft detection and prevention methods, and changes in the College's business arrangements with other entities. After considering these factors, the Program Administrators will determine whether changes to the program, including the listing of red flags, are warranted. If warranted, the committee will update the program.

Strategic Goals

1. Adopt Strategic Change and Continuous Quality Improvement Systems
 - o Embrace mission-based outcomes assessment, planning, and budgeting
 - o Maintain high morale through effective communication and employee involvement
 - o Support and promote shared campus governance and open and timely decision making
 - o Utilize self-studies, both with or without certification or accreditation linkages (Middle States and others), to bring about needed changes
2. Promote Teaching Excellence and Maintain a Responsive and Dynamic Curricula
 - o Expect and maintain student-centered teaching excellence
 - o Maintain effective and efficient instructional delivery systems, including distance learning and workplace learning models
 - o Develop new curricula as needed and phase out outdated or undersubscribed courses, services, and programs based on community and student needs
 - o Develop and maintain student and faculty learning support services (for example: library, instructional technology, tutorial services) that contribute significantly to faculty and student success
3. Maintain Proactive Enrollment Management, Student Support Services, and Marketing Strategies
 - o Develop and maintain strategies to increase student enrollments and the diversity of student populations served
 - o Increase the retention of students who have not completed their educational goals
 - o Establish marketing and retention plans to maintain student enrollments in all of the College's traditional service areas
 - o Serve a diverse array of students in all our mission based areas, providing special services to reach out to underserved populations.
 - o Develop and maintain co-curricular and extra-curricular activities that enhance student development and success
4. Align Facilities Development and Management with Mission Based Priorities
 - o Plan space improvements to promote student, faculty, and staff success
 - o Align facility planning and management to directly support strategic directions, especially instructional and enrollment develop plans
 - o Study and maintain a master campus plan that addresses both short term and long term college facility needs and the related funding
5. Increase Technology Applications in a Cost-Effective Manner

- o Expand the College's Internet capabilities and Web presence
 - o Enhance technology infrastructure in support of future growth
 - o Equip instructional spaces and offices with the necessary technology to assure faculty, student, and staff success
6. Improve Human Resources Development Systems
- o Improve recruitment, selection, and orientation processes aimed at securing and maintaining a diverse and competent faculty and staff
 - o Maintain employee development and evaluation systems which are supportive of the College's mission, vision, and strategic directions
 - o Establish and maintain externally competitive and internally equitable salary and benefit packages for all employee groups
 - o Support quality improvements by providing the training needed by people to do things differently and to feel competent in a dynamic work environment
7. Enhance Resource Development, Allocation, and Reallocation Strategies
- o Make efficient and effective use of available funds and resources
 - o Make resource reallocations as needed
 - o Establish strategies and plans to enhance revenues from both traditional (state and county aid, tuition and fees, Foundation and Alumni Association contributions, grants, et cetera.) and non-traditional sources (consider innovative revenue enhancement strategies, including developing revenue centers and establishing revenue enhancement partnerships)
8. Expand Community Services and Strategic Partnerships and Alliances
- o Collaborate with business and community leaders and organizations in shaping the College's future
 - o Expand strategic partnerships and alliances in fulfilling the mission
 - o Cooperate with other educational and community organizations in seeking educational solutions to local economic and social problems.
 - o Maintain the College's role as the hub of intellectual, social, and cultural development in its service area.

Mission Statement

HCC is a state and county supported comprehensive community college. Its central purpose is to offer a diverse array of courses and programs designed to address the curricular functions of university transfer, career entry or advancement, adult basic skills enhancement, general and continuing education, as well as student and community service. It is part of the College's mission to promote and deliver educational excellence within a learning community environment and to foster regional economic and cultural development through community service and collaboration. The College is charged to provide high quality education at a reasonable cost to meet the post-secondary educational needs of the citizens of Washington County and the surrounding region. The College believes in and teaches the ideals and values of cultural diversity and a democratic way of life and also seeks to cultivate in its students critical and independent thought, openness to new ideas, a sense of self-direction, moral sensitivity, and the value of continuing education.

Vision Statement

HCC will be a learner-centered, accessible, life-long learning institution dedicated to student and community success. We will maintain a wide spectrum of college programs and services, with a special emphasis on teaching excellence as measured by verifiable student academic achievement. We are committed to staff success through planning and learning, shared campus governance, the promotion of internal and external partnerships, and making the necessary strategic changes that will assure we successfully address our mission - the purpose, functions, and values of the College.

b. Institution designated Information System Security Officer or equivalent. Provide name, position and job description for person or persons responsible for information security.

Point Value: 5 points

SUBMISSION:

While the college recognizes the importance of a Security Officer, the current financial fiscal environment does not allow us to hire staff for this position until 2012.

In 2010 HCC will undergo a security audit.

However, we do have three IT positions whose job description cite computer security and network security as duties.

IT Project Specialist: Joshua Stultz

Network Administrator: Scott McIntyre (Senior Network Administrator) and Herbert Fiege

IT Operations Manager: vacant

Job Descriptions follow:

I. POSITION TITLE: Information Technology (IT) Project Specialist

II. SUMMARY STATEMENT:

The Information Technology (IT) Project Specialist provides network troubleshooting and repair to the data communications network software, file servers, switches and hubs. Responsibilities may include installation and testing of new operating and networking system software, to assisting with back ups', system recovery.

ORGANIZATIONAL RESPONSIBILITIES:

- A. The IT Project Specialist reports directly to the IT Operations Manager.
- B. The position requires no direct supervisory responsibilities.
- C. The IT Project Specialist coordinates most closely with the Information Technology staff, instructors, and students in carrying out responsibilities.

III. DUTIES:

- A. Install, maintain and support network file servers
 - 1. Monitor daily all file servers for storage requirements, file placement, and mapping.
 - 2. Review file server system logs for performance issues.
 - 3. Install and download patches for the various operating systems considered to be enterprise-wide including Windows 95-98, NT, Novell, and Unix.
 - 4. Install and monitor centralized backup processes for all central server and intermediate local area network servers connected to the network.

5. Install and maintain approved third party software products and work with the staff to ensure efficient and effective utilization.

6. Prepare and document procedures, utilities, and custom configurations to allow other technical support staff, data communications staff, and the Help Desk Center Staff to diagnose and correct reoccurring problems.

B. Install, maintain, and support network infrastructure

1. Identify and verify network connectivity problems and communications links.

2. Monitor network traffic to the various buildings and closets.

3. Install hubs, switches, routers, wireless access points and other networking equipment

4. Perform other tasks as assigned by the IT Operations Manager or IT Director.

C. Coordinate and assist HCC faculty, staff, and students in the use of workstation software and hardware.

1. Functions as a member of the PC support team. Monitors administrative workstation computing, laboratory usage/scheduling and records problems in Track It problem resolution software

2. Consults and assists faculty with hardware specifications and implementation of application programs for credit and non-credit courses.

3. Consults and assists faculty and staff with hardware specifications and implementation of workstation software.

4. Support faculty, staff, and students with the use of workstations, printers, network and software.

5. Develops and documents procedures and standards to assist faculty, staff, and students in learning how to use the hardware and software.

6. Assists the IT Operations Manager with the overall management of the computer laboratories, classrooms and workstation computing.

D. Maintains and operates the computer laboratories and workstation environment.

1. Troubleshoots and coordinates maintenance with hardware support for maximum user and lab utilization uptime.

2. Coordinates requirements for and provides input into the development, maintenance and implementation of network images for all classroom, computer labs and administrative workstations.

3. Ensures physical and network security procedures are followed.

4. Suggests budget items for laboratory and workstation improvements to the IT Operations Manager.

5. Coordinates the requests and replenishment of supplies as needed.

C. Performs other duties as assigned by the IT Operations Manager, or the Director of IT.

IV. JOB KNOWLEDGE:

A. Education and experience - Associate degree in computer science with emphasis on networking or equivalent experience. Should have one-year experience, similar in nature to the HCC environment.

B. Skills and abilities - Working knowledge of the NT, Unix, Novell and Windows Operating System's and familiarity with a variety of subsidiary support systems. Must have the ability and desire to solve problems and work in a highly technical environment. Must be detail oriented and possess good technical writing skills. Must be experimental and have the ability to make knowledge transfer to peers and associates concerning new software.

V. WORKING ENVIRONMENT: This is a moderate stress position involving interaction with faculty, staff, and students. There is some heavy lifting involved in the placement of equipment. Occasional eyestrain will occur from heavy computer usage. Time is spent in normal office conditions with numerous interruptions.

VI. POSITION TITLE: Network Administrator

VII. SUMMARY STATEMENT:

The Network Administrator provides network troubleshooting and repair to the data communications network software, file servers, switches and hubs. Responsibilities may include installation, setup, monitoring and testing of networking system software and hardware to ensure network performance and meet College and user requirements.

VIII. ORGANIZATIONAL RESPONSIBILITIES:

A. The Network Administrator reports directly to the Information Technology Operations Manager.

B. The position requires no direct supervisory responsibilities.

C. The Network Administrator coordinates most closely with the Information Technology (IT) staff, faculty, and students in carrying out responsibilities.

IX. DUTIES:

A. Install, maintain and support network file servers.

1. Monitor file servers for storage requirements, file placement, and mapping.
2. Review file server system logs for performance issues.
3. Install and download patches for the various Operating Systems including Windows, NT, Novell, and Unix.
4. Install and monitor centralized backup processes for all central server and intermediate local area network servers connected to the network.
7. Install and maintain approved third party software products and work with staff to ensure efficient and effective utilization.
8. Prepare and document procedures, utilities, and custom configurations to allow other technical support staff, data communications staff, and the Help Desk Center Staff to diagnose and correct reoccurring problems.

B. Install, maintain, and support network infrastructure.

5. Identify and verify network connectivity problems and communications links.
6. Monitor network traffic to the various buildings and closets.
7. Anticipate communication and networking problems and implement preventive measures.
8. Install hubs, switches, routers, wireless access points and other networking equipment
9. Investigate user problems, identify sources, determine possible solutions, test and implement solutions.
10. Ensure timely user notification of maintenance requirements and effects on system availability.
11. Investigate, recommend and install enhancements and operating procedures that optimize network availability.
12. Plan and implement network security, including building firewalls, applying cryptography to network applications, managing host security, file permissions, backup and disaster recovery plans, file system integrity, and adding and deleting users.
13. Perform other tasks as assigned by the IT Operations Manager or IT Director.

X. JOB KNOWLEDGE:

A. Education and experience - Associate degree in computer science with emphasis on networking or equivalent experience. Should have a minimum of one-year experience, similar in nature to the College network environment.

B. Skills and abilities - Working knowledge of the NT, Unix, Novell and Windows Operating Systems and familiarity with a variety of subsidiary support systems. Must have the ability and desire to solve problems and work

in a highly technical environment. Must be detail oriented and possess good technical writing skills. Needs to be experimental and have the ability to make knowledge transfer to peers and associates.

XI. WORKING ENVIRONMENT: This is a moderate stress position involving interaction with other IT staff, faculty and staff. Some heavy lifting involved in the placement of equipment. Occasional eyestrain will occur from heavy computer usage. Time is spent in normal office conditions with numerous interruptions.

I. POSITION TITLE: IT Operations Manager

II. SUMMARY STATEMENT:

The IT Operations Manager is responsible for all technology and tools used in support of the College's mission. This responsibility incorporates faculty and lab support for education applications, the campus network, documentation and training needs, and coordination with the telecommunications staff. This position supervises operations. This position is responsible for the development, maintenance and enhancement of proactive client centered services, including continuous quality improvement, quality control, and quality assurance.

III. ORGANIZATIONAL RELATIONSHIPS:

A. The IT Operations Manager reports directly and is responsible to the Director, Information Technology (IT).

B. This position requires the supervision of the PC support team, the Network Services team and any assigned student aides.

C. The IT Operations Manager coordinates most closely with all areas of the College that request services, support, and training. Contact is maintained with hardware, software, and service vendors in carrying out assigned responsibilities.

IV. DUTIES:

A. Supervise IT Operation Center.

1. Assists with instruction of all users in proper use of campus systems and tools.

2. Supervises instruction and training of IT staff members.

3. Provides technical and operational assistance to the IT staff and, through Help Desk referrals, the entire College community. Monitors the dispatch of Network and PC support personnel to customer jobs.

4. Analyzes data on incoming calls to determine customer needs and implements programs to meet those needs, as appropriate and within available budget.

Utilizes data to determine appropriate hardware and software for future campus needs.

5. Utilized key performance indicators to identify potential for improvements to satisfy customer requirements.

6. Monitors network usage to facilitate efficient and effective use.

7. Coordinates internal working groups to facilitate higher levels of customer satisfaction and support.

B. Manages and coordinates installation, programming, modification, tuning, and problem resolution for network components.

1. Coordinates the development and implementation of a telecommunications and network plan for the campus and off-site locations.

2. Assures adherence to the network and security plan for the College network.

3. Participates in the campus strategic planning process a part of the IT management team in defining technological solutions to current and projected problems and opportunities and prepares strategic and operational plans to implement IT goals and objectives.

4. Coordinates the evaluation of emerging technology for possible use in network enhancement and makes recommendations to the IT Director.

C. Schedules, supervises, and assists staff and students.

1. Maintains operations schedule for computer staff.

2. Maintains schedule and coverage for computer labs and staff.

3. Provides technical and operational assistance to the IT staff and the entire College community.

4. Coordinates with the Director, IT and other IT managers on work assignments and other department activities.

5. Coordinates task priorities with the Director, IT.

6. Coordinates and schedules staff "on call" for after duty and dark hours.

D. Performs supervisory and administrative duties as required.

1. May act on behalf of the Director in his/her absence.

2. Serves as the primary security administrator for the central and network computer systems.

3. Assists IT vendors and consultants in carrying out their activities assigned by the Director.

4. Schedules routine maintenance and problem diagnosis for the systems.
5. Supervises the shredding of confidential documents.
6. Supervises the network, central system, and instructional server operation including system backup.
7. Performs additional responsibilities as assigned by the Director.

V. JOB KNOWLEDGE:

A. Education and experience - bachelor's degree in computer science or related field; five years of progressively more responsible experience to include supervisory experience and experience in a networked system environment; or any equivalent combination of experience and training which provides the required knowledge, skills, and abilities.

B. Skills and abilities - programming and management skills; good keyboard skills; ability to communicate both orally and in writing in non-technical English; ability to deal tactfully, effectively, and fairly with people; ability to establish and maintain effective working relationships; ability to plan, assign, train, and direct the work of others; ability to work under pressure and make judgments in accordance with established policies and procedures; ability to work independently in the absence of detailed instructions; ability to operate a variety of computer and network equipment.

VI. WORKING ENVIRONMENT:

Part shop and part office conditions, including noise from printers, some heavy lifting, telephone and personal interruptions, and eye strain from heavy terminal use.

8/9/99

c. Provide evidence of the implementation of the institution IA security plan to encourage IA awareness throughout the campus. (Example: Students and faculty/staff are required to take computer based training or on-line tutorials; a security banner statement present on institution computers; security related help screens are available; institution-wide seminars are held on the importance of IA, etc- 2pts awarded per item)

Point Value: 2 minimum / 10 maximum

SUBMISSION:

At this time a proposed Log-In Message has been created.

Log-In Message

By logging into this computer and HCC's network you are agreeing to HCC's acceptable use policies found on the HCC website and in the Student and Employee handbooks. Any materials accessed by this computer or stored on this computer are subject to search and monitoring by HCC's Information Technology staff. All materials stored on this computer are considered HCC property.

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Total MINIMUM Point Requirement: 57

Total MAXIMUM Points Available: 108

MINIMUM POINTS REQUIRED TO QUALIFY AS AN IA CENTER OF ACADEMIC EXCELLENCE: 57

Minimum points must be met for each of the six criteria.

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