

6855 S. Havana Street, Suite 230

Centennial, CO 80112

Phone: 303-832-4665

Fax: 303-768-0513

7450 Campus Drive, Suite 250

Colorado Springs, CO 80920

Phone: 719-596-4545

Fax: 719-559-3502

Catalog Number 1, Volume Number 27, Revised 2/18/2021

Approved and Regulated By the Colorado Department of Higher Education, Private Occupational School Board

Certified true, correct in Content and Policy

Meghan Jurado, Director of Compliance

Signature: Meghan Jurado, 2/18/2021

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# Introduction

ACI Learning (hereinafter referred to as “The School”) offers job training programs that quickly close skill gaps and help individuals improve technical and management performance; producing rewarding careers and delivering an effective workforce for businesses across size and industry.

The School provides world-class technology and equipment for student training. The School is staffed with Instructors who must meet minimum certification standard in their field of specialty.

The School is an Authorized Training Partner for Microsoft, EC-Council and CompTIA.

The owner of the School is Chong Moua. The School is headquartered in Englewood, CO and as of this writing, offers classes on five campuses: Englewood, Colorado Springs, Jacksonville FL, San Antonio TX and Irving TX.

The School has the following history:

* January 2001: School is approved by the Colorado Board of Higher Education Department of Private Educational Schools under the name of Hensmann Training and Education Centers.
* February 2001: School opens its doors in Colorado Springs, CO and runs its first class.
* March 2001: School opens its second campus in Englewood, Colorado.
* July 2006: School is sold to new ownership. The acquiring company is ACI Learning with one majority shareholder in George Cohlmia. School continues to operate as Hensmann Training and Education Centers through 2006 and into early 2007.
* April 2007: School officially changes its name from Hensmann Training and Education Centers to LeaderQuest.
* October 2014: Irving Dallas school is opened and approved by the Texas Workforce Commission
* October 2015: Purchased Consultech Inc. in Jacksonville, FL and is approved by Florida Department of Education.
* July 2018: ACI Learning opens their San Antonio Campus and is approved by the TWC
* May 2019, ACI Learning is purchased by MISTI. All programs and employees remain the same.
* June 2020, LeaderQuest changes its name to ACI Learning

# Administration Staff

Key Administrative Staff:

* Brett Shively – CEO
* Timothy Kalil – President
* Jerry Kukuchka – Chief Financial Officer
* David Duke- Chief Product Officer
* Bob Villareal – Campus Director – Irving
* Chris Young- Campus Director –Colorado Springs
* Qwincy Houston – Campus Director – Englewood
* Jennifer Mathis- Campus Director –Jacksonville
* David Koker- Campus Director- San Antonio
* Meghan Jurado –Director of Compliance
* Bruce Stassen- Director of Human Resources
* Maria Smith- Sr Compliance Specialist/Lead SCO
* Pat Allen- Lead Instructor
* Greg Gardener- COS Student Mentor
* Troy Athmann- DTC Student Mentor

# Faculty

**Pat Allen – Lead Technical Instructor**

Pat has extensive field experience in IT Helpdesk, networking and security. At ACI Learning, he has a proven track record with student success and is a highly regarded IT instructor. He has been monumental in assisting students in successfully completing their courses and passing certification exams.

Pat has earned the below certifications:

* **CompTIA A+**
* **CompTIA Network+**
* **CompTIA Security+**

**Greg Gardner- Technical Instructor and Student Mentor**

Greg is an experienced Technical Instructor that excels in facilitating learning in his classes and during one-on-one mentoring with students

* **CompTIA Security+ Certification**
* **Certified SCRUM Master**
* **Certified Mobile Learning Developer**
* **Secondary Education Teaching Certification, Minnesota**
* **Microsoft Certified Trainer**
* **Microsoft Certified Systems Engineer + Internet**.

**Troy Athmann- Technical Instructor and Student Mentor**

Troy has an extensive background in training MS Office, MS Server and MS SharePoint courses. He has been the lead Project Manager on IT initiatives at several organizations, and has certifications in:

* **ITIL 4,**
* **CompTIA A+,**
* **CompTIA Net+**
* **CompTIA Sec+**

**Marcia Ingino – Adjunct Instructor**

Marcia has been teaching project management and business analysis for over 16 years where she’s maintained an aggregate evaluation score of 9.2 of 10.0. Marcia possesses a BS in Computer Engineering from University of Illinois and an MS in Engineering Management from University of Colorado. Marcia currently instructs the following programs:

* **STPM – Senior Technology Project manager**
* **CAPM & PMP IT Project Manager**

# INSTRUCTOR EVALUATION

Our students' evaluation of our training program and instructor performance is very important us. We use student feedback to continually improve our methods and products. The instructor will provide each student with a link to a course evaluation through the ACI Learning Learning Portal.

# Programs Offered

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Program Title / Certificate | Course Number | Course Title | Contact Hours (Hrs) | Program Completion Length\* (Days) |
| **Infrastructure and Tech Support** | | | | |
| Computer User Support Specialist (CUSS) | 220-1001 | A+ Essentials | 40 | 45 |
| 220-1002 | A+ Practical Applications | 40 |
| N10-007 | Network+ | 40 |
| SY0-601 | Security+ | 40 |
| ITIL-FND | ITIL Foundations | 40 |
| CCNA- (CCNA) | CCNA 1 | Certified Cisco Network Administrator, CCNA Part 1 | 40 | 10 |
| CCNA 2 | Certified Cisco Network Administrator, CCNA Part 2 | 40 |
| Network Support Specialist (NSS) | N10-007 | Network+ | 40 | 30 |
| SY0-601 | Security+ | 40 |
| CCNA 1 | Certified Cisco Network Administrator, CCNA Part 1 | 40 |
| CCNA 2 | Certified Cisco Network Administrator, CCNA Part 2 | 40 |
| Technical Support Specialist (TSS) | ITIL-FND | ITIL v4 Foundations | 40 | 25 |
| 220-1001 | A+ Essentials | 40 |
| 220-1002 | A+ Practical Applications | 40 |
| AWS re/Start Cloud Support (AWS) | AWS Fundamentals, Cloud and SysOps | | | 320 |
| **Information Security** | | | | |
| Cybersecurity Specialist (CYBER) | SY0-601 | CompTIA Security + | 40 | 25 |
| 312-50 | Professional Ethical Hacker | 40 |
| 312-49 | Computer Hacking Forensics Investigator | 40 |
|  | SY0-601 | Security + | 40 |  |
| Information Security Analyst-(ISA) | CND | Certified Network Defender | 40 | 30 |
|  | 312-50 | Certified Ethical Hacker | 40 |  |
| **Project and Service Management** | | | | |
| Senior Tech Project Manager (STPM) | ITIL-FND | ITIL v4 Foundations | 40 | 10 |
| PMP-EP | PMP Preparations | 40 |

\*Program Completion Length does not include self-study prep time based on industry standard of 1 day of self-study prep for each day of course lecture.

# Seminars Offered

|  |  |  |
| --- | --- | --- |
| **Course Title** | **Course Number** | **Contact Hours (Hrs)** |
| CompTIA A+ | 1001/1002 | 80 |
| Certified Professional Ethical Hacker | CPEH | 40 |
| Computer Hacker Forensic Investigator | CHFI | 40 |
| Certified Network Defender | CND | 40 |
| CompTIA Advanced Security Practitioner | CASP | 40 |
| Certified Information Systems Security Professional | CISSP | 40 |
| EC-Council Certified Encryption Specialist | ECES | 24 |
| ITIL v4 Foundations | ITIL-FND | 40 |
| Project Management Specialist | PMP | 40 |
| Network+ | N10-007 | 40 |
| Security+ | SY0-601 | 40 |
| Server+ | SK0-004 | 40 |

# Tuition and Labs

Base Tuition Labs Total Tuition Registration Fee

*CUSS - Computer User Support Specialist – 200 hours*

$13,342 $533 $13, 875 $0

*AWS re/Start Cloud Support- 320 hours*

$13,875 Included $13,875 $0

*CCNA – 80 hours*

$6,152 $398 $6,590 $0

*NSS - Network Support Specialist - 160 hours*

$11,618 $762 $12,380 $0

*CYBER – Cybersecurity Specialist – 120 hours*

$9,160 $1,325 $10,485 $0

*STPM - Senior Technology Project Manager – 80 hours*

$5,399 $191 $5,590 $0

*TSS – Technical Support Specialist – 120 hours*

$7,818 $267 $8,085 $0

*ISA – Information Security Analyst – 120 hours*

$9,432 $1,053 $10,485 $0

*CompTIA A+ Certification – 80 hours*

$5,575 $215 $5,790 $0

*CompTIA Network+ Certification – 40 hours*

$2,713 $182 $2,895 $0

*CompTIA Security+ Certification – 40 hours*

$2,713 $182 $2,895 $0

*CompTIA Server + Certification – 40 hours*

$2,513 $182 $2,695 $0

*CEH – Certified Ethical Hacker - 40 hours*

$3,303 $492 $3,795 $0

*CHFI- Computer Hacking Forensic Investigator- 40 hours*

$3,348 $447 $3,795 $0

*CND- Certified Network Defender – 40 hours*

$3,416 $379 $3,795 $0

*CASP- CompTIA Advanced Security Practitioner- 40 hours*

$3,3170 $325 $3,495 $0

*CISSP – Certified Information Systems Security Professional - 40 hours*

$3,423 $72 $3,495 $0

*ECES- EC-Council Certified Encrypted Specialist- 24 hours*

$2,045 $180 $2,545 $0

*ITIL-FND ITIL Foundations – 40 hours*

$2,243 $52 $2,295 $0

*PMP- Project Management Specialist – 40*

$3,156 $139 $3,295 $0

# Class Schedule

All courses are determined by Vendor standards. Not all programs have been submitted for GI Bill benefits.

## Full time Students:

Monday through Friday 8:00am – 5:00 pm with one-hour lunch break, mornings 8:00am to 12:00 pm or afternoons from 1:00pm to 5:00pm. All full-time students attend 20 hours a week or more.

## Part-Time Students:

Monday through Friday 6:00pm – 10:00pm. Some Saturdays allowed for make-up 8:00am – 4:30pm with one-half hour lunch break.

When an unexpected closure occurs due to extraordinary conditions such as inclement weather, students will be notified as soon as possible by phone and/or radio, and/or TV who provide closure information as a public service. Classes are not held on the following holidays:

New Year’s Eve Labor Day

New Year’s Day Thanksgiving Day & the Friday following

Memorial Day Christmas Eve

Independence Day Christmas Day

# Admission Requirements

The school does not discriminate based on race, sex, religion, ethnic origin, or disability.

Prospective students must have a high school diploma or equivalency diploma with the willingness to learn; and a working knowledge of computers would be greatly appreciated. We also screen our students to make sure they will be successful with our program. In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

# Enrollment

Prospective students may enroll anytime. Late enrollments will be only one week prior to class start time and as late as one day into first class, depending on the program and the student has adequate experience.

ACI Learning is authorized and approved to accept all VA benefits programs.

# Facilities

The ACI Learning main corporate office is located in Denver at 6855 S. Havana St, Englewood CO 80112. ACI Learning also operates a second training facility in Colorado Springs 7450 Campus Drive, Suite 210, Colorado Springs, CO 80920, a third campus in Dallas TX at 102 Decker Court, Ste 250, Irving, TX 75062, and a fourth located in Jacksonville FL at 8663 Baypine Rd Bldg 4 Suite 104, Jacksonville FL 32256 as well as a fifth campus in San Antonio at 8200 IH-10 West, Suite 1005 San Antonio TX 78230. Hours of operation are from 8 am to 5 pm. All classrooms are furnished with the latest state-of-the-art equipment and furniture. A Resource Center, Study Center and Career Services Center are available to students.

ACI Learning is a smoke-free environment. For those that smoke, designated smoking areas are located outside our training facilities.

# Placement Assistance

ACI Learning offers job lead referrals as they are sent to us from employers. However, we make no guarantee, express or imply of future employment. Current law prohibits any school from guaranteeing job placement as an inducement to enroll students.

# Attendance Requirements

Students are expected to arrive on time for classes with the proper materials and attitude. An overall attendance rate of at least 80% is required. Instructors take attendance on a daily basis through an attendance log that is submitted to student services by 11:00AM each day and added to the student’s file. On that attendance log, instructors mark whether the student was tardy, absent, or partial. Instructors may request students to withdraw from a course or program if excessive absences of over 75% or tardiness lead to unsatisfactory progress.

Students who fall behind the 80% attendance rate or the 80% lab participation rate will be put on academic probation by student services and if they fall under 75% will automatically be dropped from the program. If students using VA benefits exceeds 75% total absences per period will be terminated from their VA Benefits for unsatisfactory attendance. All students will be given one additional training period after they are put on probation to meet requirement or will be terminated at that time.

In order to show that the cause of unsatisfactory attendance has been removed, students must show good attendance (as defined) for one period after being terminated for unsatisfactory attendance. After such time, the student may be recertified for VA education benefits.

Students who are unable to continue classes for medical reasons or severe personal problems will be required to take a leave of absence until that are able to return to class. Proper documentation will be required to substantiate a student’s withdrawal. We also offer an audit policy: Students can come and refresh any class on a space availability basis.

# VA Benefit Disbursement DELAYS

Any covered individual wishing to attend classes using their GI BILL or VOC Rehab are covered under Title 38 United States Code Section 3679(e). A covered individual isany individual who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill benefits.

Any covered individual that wishes to attend ACI Learning courses or programs of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33 (a “certificate of eligibility” can also include a “Statement of Benefits” obtained from the Department of Veterans Affairs’ (VA) website – eBenefits, or a VAF 28-1905 form for chapter 31 authorization purposes) and ending on the earlier of the following dates:

1. The date on which payment from VA is made to the institution.
2. 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

Delay of disbursement from the VA will not impose any penalty on the covered individual, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual’s inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under chapter 31 or 33.

In order to proceed with the educational requirement prior to receipt of VA disbursement, covered individuals are required to:

1. Submit a certificate of eligibility for entitlement to educational assistance no later than the first day of a course of education.
2. Submit a written request to use such entitlement in the form of a ACI Learning enrollment packet.
3. Provide additional information necessary to the proper certification of enrollment by the educational institution.

If the VA disbursement is paid and there is a shortfall of funds, an additional payment in the amount of the shortfall will need to be made to the school in a timely manner worked out between ACI Learning and the covered individual. This payment will only be equal to the original amount minus the VA disbursement received and no further penalty will be administered.

# Certification Policy

As part of our commitment to student success, unless otherwise noted, ACI Learning covers the cost of one certification attempt per class for students that meet the preparation guidelines. Upon completion of study time, one certification attempt per completed class outlined on the registration paperwork will be covered to enable the student to complete their education. Students are eligible to schedule a certification attempt appointment after completing each class in their program. The following policy statements outline conditions and requirements associated with certification:

It is highly recommended that any certification prep, labs, study guides and materials included in the program are completed before attempting certification. It is the Student’s responsibility, and to their advantage, to utilize resources both included in the program and outside of the program to ensure their readiness. For every hour of class time we expect a student to study an additional 2 to 3 hours on their own to be able to pass the vendor certification.

Students are encouraged to take all certifications at the ACI Learning facility on campus. Students must complete 80% of class before they can request their certification appointment be covered by contacting: [clientservices@leaderquest.net](mailto:clientservices@leaderquest.net).

Students are limited to only one attempt per class. In the event a student fails an attempt, they will have three options:

1. Exchange one of the other certification attempts included in a program
2. Pay out of pocket
3. Elect not to retake and move on to the other courses in the program

Once registered at our center, ACI Learning requires a minimum of 48 hours in advance for reschedule or the appointment may be void. Missed appointments cannot be recovered and eligibility to take that attempt will be lost.

Certification attempts are required to be taken within 6 months from the last day of a completed class at the campus facility in order to complete training. Requests for certification attempts outside of this window are granted at ACI Learning’s discretion.

# Grading System/Progress Reports

Our grading system is pass/fail as required by vendor certification. Student must be present in 80% of classes and must participate in 80% of course labs or else they will be put on academic probation. If the student falls below the 75% attendance and/or lab completion the student will be evaluated on course content and asked to re-sit the course at a later date if needed. All students will be given one additional training period after they are put on probation to meet requirement or will be terminated at that time.

Students receive certificates of completion at the end of each course if the above requirements are met. All students have the option of refreshing classes for the lifetime of the course version while it is being offered at no additional cost. All students will have the option to have a progress report completed by their instructor at the end of every course.

All student records are kept for a minimum of 3 years per the Code of Federal Regulations (38 CFR 21.4209(f)).”

# ACE Credit ASSESSMENT

ACE credits are an optional way for students to link their studies into credits that may be transferable to other schools and colleges. These credits are not required in order to complete the training program and are not part of tuition. Any student wishing to participate in ACE credits does so voluntarily and covers the cost of all credits.

In order to be granted ACE credits for qualifying classes, a student must take and achieve a 70% or higher score on the class assessment. The assessment links objectives and learning outcomes covered during the course. It is designed to evaluate the knowledge and skills the student has obtained by the completion of class, and was created by experienced faculty who hold credentials associated with the subject matter. If the student does not score a least 70%, a retake assessment can be attempted. The retake assessment score is considered final and no additional retakes will be offered. Students re-sitting classes will not be eligible to take the assessment.

In order to qualify to sit for the assessment, students must:

* Meet the required 80% participation/attendance by the last day of class.
* Students who elect to earn ACE credit hours for the course will need to score a minimum of 70% on the assessment.
* If student does not elect to earn ACE credit for the course, the score will be recorded but will not affect student status.
* If the student does not attend and complete the assessment on the last day of class due to a documented unforeseen circumstance outside of their control (emergency, medical, weather), permission may be granted to reschedule the assessment if the student contacts [ClientService](mailto:ClientServices@LeaderQuest.net) within 24 hours of their absence.
* If the student does not attend and complete the assessment on the last day of class, with no documented unforeseen circumstance outside of their control (emergency, medical, weather) or with no communication to ACI Learning, the student may not receive participation for the last day of class, nor receive ACE credits and may need to retake the class to earn completion and be granted another opportunity to take the assessment.

# Re-Admission Policy

The school may allow a student whose enrollment was terminated for unsatisfactory progress to reenroll after a minimum of one probationary progress evaluation period. Such reenrollment does not circumvent the approved refund policy.

# Graduation Policy

To graduate and receive a Certificate of Completion, students must be present in 80% of classes and must participate and successfully complete 80% of course labs.

Reschedule Policy

ACI Learning is committed to keeping class sizes small in order to facilitate a high quality learning environment for our Students.  Many classes are full at 14-18 Students; because of this we have to minimize reschedules as much as possible Taking into account any unforeseen circumstances that may occur, ACI Learning’s Reschedule Policy allows any student to reschedule their classes within their Program a maximum amount of 2 times total with no penalty or charge.  Beyond two reschedules, ACI Learning Students will be dropped from their program and provided a refund for the remaining classes per the cancellation policy below.

# Cancellation and Refund Policy

Postponement of starting date, whether at the request of the school or the student, requires a written agreement signed by the student and the school. The agreement must set forth:

1. Whether the postponement is for the convenience of the school or student, and;
2. A deadline for the new start date, beyond which the start date will not be postponed.

If the course is not commenced, or the student fails to attend by the new start date set forth in the agreement, the student will be entitled to an appropriate refund or prepaid tuition and fees within 30 days of the deadline of the new start date set forth in the agreement, determined in accordance with the school’s refund policy and all applicable laws and rules concerning the Private Occupational Education Act of 1981.

Students not accepted by the school and students who cancel this contract by notifying the school within (3) business days are entitled to a full refund of all tuition and fees paid. Students who withdraw after (3) business days, but before commencement of classes, are entitled to a full refund of all tuition and fees paid except the cancellation fee of $150. Any credits for previous training shall not impact the refund. In the case of students withdrawing after commencement of classes, the Student’s refund will be based off of Tuition and Fee’s (stated on Registration form) which is based on the percentage of contact hours attended as described in the table below less a cancellation fee. Students Tuition and Fees consist of all the Students cost for books, lab material, hand-outs, that is needed for any program. The refund is based and determined by the date of a written cancellation notice that is given to ACI Learning Holdings Inc. All refund will be refunded with 30 days once determination of refund has been agreed upon by both parties.

REFUND TABLE

|  |  |
| --- | --- |
| Student is entitled to upon withdrawal/Termination | Is entitled to a refund of: |
| Within first 10% of program | 90% less cancellation fee |
| After 10% but within first 25% of program | 75% less cancellation fee |
| After 25% but within first 50% of program | 50% less cancellation fee |
| After 50% but within first 75% of program | 25% less cancellation fee |
| After 75% | No Refund |

#### **VETERANS REFUND POLICY**

Veterans not accepted by the school and who cancel this contract by notifying the school within 3 business days is entitled to a full refund of all tuition and fees paid. Veterans, who withdraw after three business days, but before commencement of classes, are entitled to a full refund of all tuition and fees paid. In the case of veterans withdrawing after commencement of classes, the school will retain a percentage of tuition and fees, which is based on the percentage of contact hours attended, as described in the table below. The refund is based on the last date of recorded attendance.

|  |  |
| --- | --- |
| **Student is entitled to upon withdrawal/Termination** | Is entitled to a refund of: |
| Within first 10% of program | 90% less cancellation fee |
| Within 20% of program | 80% less cancellation fee |
| Within 30% of program | 70% less cancellation fee |
| Within 40% of program | 60% less cancellation fee |
| Within 50% of program | 50% less cancellation fee |
| Within 60% of program | 40% less cancellation fee |
| Within 70% of program | 30% less cancellation fee |
| Within 80% of program | 20% less cancellation fee |
| Within 90% of program | 10% less cancellation fee |

***ALL STUDENTS***

* 1. The student may cancel this contract at any time prior to midnight of the third business day after signing this contract.
  2. The official date of termination for refund purposes is the last date of recorded attendance. All refunds will be made within 30 days from the date of termination.
  3. The student will receive a full refund of tuition and fees paid if the school discontinues a course program within a period of time a student could have reasonably completed it, except that this provision shall not apply in the event the school ceases operation.
  4. Attempting to resolve any issue with the School first is strongly encouraged.  Complaints may be filed at any time online with the Division of Private Occupational Schools (DPOS) within two years from the student’s last date of attendance at [http://highered.colorado.gov/dpos](https://linkprotect.cudasvc.com/url?a=http%3a%2f%2fhighered.colorado.gov%2fdpos&c=E,1,sCbHfKe9oi9o_xI4pkmB1b4UE7UswGHtJGFe-aIKACRr7gG0JC8g5kvPW26EkhB4MqtvrCmUPmAAZ64Yik28I3UiU-c10XJRfps2Av6-eshvGQ,,&typo=1), 303-862-3001.
  5. The policy for granting credit shall not impact the refund policy.

REFUND POLICY FOR STUDENTS CALLED TO ACTIVE MILITARY SERVICE.

A student of the school or college who withdraws from the school or college as a result of the student being called to active duty in a military service of the United States or the National Guard may elect one of the following options for each program in which the student is enrolled:

(a) if tuition and fees are collected in advance of the withdrawal, a pro rata refund of any tuition, fees, or other charges paid by the student for the program and a cancellation of any unpaid tuition, fees, or other charges owed by the student for the portion of the program the student does not complete following withdrawal;

(b) a grade of incomplete with the designation "withdrawn-military" for the courses in the program, other than courses for which the student has previously received a grade on the student's transcript, and the right to re-enroll in the program, or a substantially equivalent program if that program is no longer available, not later than the first anniversary of the date the student is discharged from active military duty without payment of additional tuition, fees, or other charges for the program other than any previously unpaid balance of the original tuition, fees, and charges for books for the program; or

(c) assignment of an appropriate final grade or credit for the courses in the program, but only if the instructor or instructors of the program determine that the student has:

(1) satisfactorily completed at least 90 percent of the required coursework for the program; and

(2) demonstrated sufficient mastery of the program material to receive credit for completing the program.

# Conduct Policy

Students are expected to act in an adult manner. Possessions of weapons, illegal drugs, and alcohol of any kind are not allowed at any time. The school does not tolerate sexual harassment. Any violation of school policies may result in permanent dismissal from school.

# Educational Services

ACI Learning’s primary educational format is traditional classroom instruction with online content as an adjunct learning resource. When the student’s schedule or personal circumstance prevents them from participating physically, ACI Learning does provide online training as an alternate method of training if approved by funding source.

All courses are conducted by live instructor with real-time interaction.

Each ACI Learning training facility offers students a break room and a study area for their convenience.

# Previous Credits

Credit for previous education will be evaluated and when appropriate, credit will be granted and the program shortened accordingly. ACI Learning does not guarantee the transferability of its credits to any other institution unless there is written agreement with another institution.

The school maintains a written record of the previous education and training of the veteran or eligible person and clearly indicates that appropriate credit has been given for previous education and training, with the training period shortened proportionately, and the veteran or eligible person and the Department of Veterans Affairs is notified when accepted.

The evaluation of previous postsecondary education and training is mandatory and required for VA beneficiaries. For students utilizing Veterans benefits who are approved for transfer credit as a result of this evaluation, the institution will grant appropriate credit, reduce the program length proportionately, notify the student and Veterans Affairs in writing of this decision, and adjust invoicing of the VA accordingly.

# Dismissal

Any student may be dismissed for violations of rules and regulations of the school, as set forth in the schools’ publications. A student also may be withdrawn from classes if he or she does not prepare sufficiently, neglects assignments, or makes unsatisfactory progress. The director, after consultation with all parties involved, makes the final decision.

# Student Grievance Procedure

Attempting to resolve any issue with the School first is strongly encouraged. ACI Learning endeavors to assist students quickly and completely, and requests that students email instructors and Client Services to attempt to solve any issues.

Attempting to resolve any issue with the School first is strongly encouraged.  Complaints may be filed at any time online with the Division of Private Occupational Schools (DPOS) within two years from the student’s last date of attendance at [http://highered.colorado.gov/dpos](https://linkprotect.cudasvc.com/url?a=http%3a%2f%2fhighered.colorado.gov%2fdpos&c=E,1,sCbHfKe9oi9o_xI4pkmB1b4UE7UswGHtJGFe-aIKACRr7gG0JC8g5kvPW26EkhB4MqtvrCmUPmAAZ64Yik28I3UiU-c10XJRfps2Av6-eshvGQ,,&typo=1), 303-862-3001.

All student records are kept secure in a locked room and are only assessable to ACI Learning employees. All students can request a copy of their records by submitting an email to [clientservices@acilearning.com](mailto:clientservices@acilearning.com) .

# Programs

## Computer User Support SPECIALIST

### Program Description

This program is designed to help individuals get jobs in the technical support and service field as end user support specialists. This program develops the skills required to perform the following job functions:

* Install, configure, upgrade, and maintain PC workstations, focusing on the Windows Operating System.
* Resolve PC, OS, and network connectivity issues and implement security practices.
* Manage, maintain, troubleshoot, basic network infrastructure, describe networking technologies, basic design principles, and adhere to wiring standards.
* Perform compliance and operational security tasks
* Anticipate, identify and prevent threats and vulnerabilities
* Manage application, data and host security
* Perform access control and identity management functions
* Understand basic Cryptography concepts
* Install, configure, upgrade, maintain, and troubleshoot servers.
* Examine server hardware and software, disaster recovery strategies.
* Perform installation, troubleshooting, and management functions in the Windows Client operating system environment.
* Troubleshoot security system issues, such as Encrypting File Systems (EFS) BitLocker Drive Encryption, and file permissions.
* The program also introduces the principles and core elements of IT service management (ITSM) based on ITIL framework

### Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

### Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| 220-1001 | A+ Essentials | 20/20/0/40 |
| 220-1002 | A+ Practical Applications | 20/20/0/40 |
| N10-007 | Network+ | 20/20/0/40 |
| SY0-601 | Security+ | 20/20/0/40 |
| ITIL-FND | ITIL Foundations | 20/20/0/40 |

The approximate time required to complete this program is 45 days for day students and 50 nights for evening students.

### Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for 5 days, and from 8:00 am to 12:00 pm or 1:00pm to 5:00 pm for 40 days. Classes for evening students will be held on Monday through Friday 6:00pm to 10:00pm. For full day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minutes breaks dispersed throughout the day. For morning/afternoon/evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

### Tuition and Labs

Registration: $0  
Base Tuition: $13,342  
Labs: $553

Total Tuition: $13,875

### Targeted Job Roles

* End User Support Specialist
* Service Technician
* Technical Support Specialist
* Help Desk Specialist
* Desktop Support Specialist
* Security Administrator

### Course Descriptions and Syllabi

#### CompTIA A+ 1001 Essentials

This course will build on the student's existing user-level knowledge and experience with personal computer (PC) hardware to present fundamental skills and concepts that are used on the job. In this course, the student will acquire the essential skills and information needed to install, configure, troubleshoot, upgrade, and perform preventive maintenance on PCs and mobile device hardware.

The CompTIA A+ course can benefit the student in two ways. Whether working in a   
mobile or corporate environment with a high level of face-to-face customer interaction, where client   
communication and client training are important, or in an environment with limited customer   
interaction and an emphasis on hardware activities, this course provides the background knowledge and skills required to be a successful A+ technician.

In this course, the student will install, configure, optimize, troubleshoot, repair, upgrade, and perform preventive maintenance on personal computers, digital devices, and operating systems.

COURSE OBJECTIVES

* Install and configure PC system unit components and peripheral devices.
* Install, configure, and troubleshoot display and multimedia devices.
* Install, configure, and troubleshoot storage devices.
* Install, configure, and troubleshoot internal system components.
* Explain network infrastructure concepts.
* Configure and troubleshoot network connections.
* Implement client virtualization and cloud computing.
* Support and troubleshoot laptops.
* Support and troubleshoot mobile devices.
* Install, configure, and troubleshoot print devices.

### Course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| A+ 1001 | CompTIA A+ Essentials | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

### REQUIRED COURSEWARE

* CompTIA A+ Certification, Exam 220-1001 (ebook from CompTIA)
* ACI Learning Learning Management System Student Portal
* TestOut Test Prep
* Professor Messer Guides
* TestOut Labs and ACI Learning Labs

### iNSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs (virtual)
* Hand on in-class PC build
* Videos
* Assessments

### COURSE Outline

**Day 1**

**Introductions/Policy Overview/Course Description**

**Lesson 1: Installing and Configuring PC Components**

Topic A: Use Appropriate Safety Procedures

Topic B: PC Components

Topic C: Common Connection Interfaces

Topic D: Install Peripheral Devices

Topic E: Troubleshooting Methodology

Labs: 1.1.3; 1.1.5; 1.2.7; 2.5.6;

**Lesson 2: Installing, Configuring, and Troubleshooting Display and Multimedia Devices**

Topic A: Install and Configure Display Devices

Topic B: Troubleshoot Display Devices

Topic C: Install and Configure Multimedia Devices

Labs: 3.12.5; 3.13.7;

**Day 2**

**Lesson 3: Installing, Configuring, and Troubleshooting Storage Devices**

Topic A: Install System Memory

Topic B: Install and Configure Mass Storage Devices

Topic C: Install and Configure Removable Storage

Topic D: Configure RAID

Topic E: Troubleshoot Storage Devices

Lab: 3.8.3; 3.8.7; 3.9.4; 3.9.5; 3.11.4;

**Lesson 4: Installing, Configuring, and Troubleshooting Internal System Components**

Topic A: Install and Upgrade CPUs

Topic B: Configure and Update BIOS/UEFI

Topic C: Install Power Supplies

Topic D: Troubleshoot Internal System Components

Topic E: Configure a Custom PC

Labs: Internal Components - 3.2.5; 3.3.5; 3.4.3; 3.4.4; 3.5.7; 3.6.3; 3.6.4;

Labs: Peripheral - 4.1.3; 4.2.3;

**Lesson 5: Network Infrastructure Concepts**

Topic A: Wired Networks

Topic B: Network Hardware Devices

Topic C: Wireless Networks

Topic D: Internet Connection Types

Topic E: Network Configuration Concepts

Topic F: Network Services

Labs: Wired - 6.2.6; 6.6.5; 6.6.6; 6.8.3; 6.8.4; (build a CAT 5 cable and test)

Labs: Wireless - 7.1.7; 7.1.8; 7.1.9; 7.1.10; 7.3.7; 7.4.4; 7.5.3 (practice questions)

**Day 3**

**Lesson 6: Configuring and Troubleshooting Networks**

Topic A: Configure Network Connection Settings

Topic B: Install and Configure SOHO Networks

Topic C: Configure SOHO Network Security

Topic D: Configure Remote Access

Topic E: Troubleshoot Network Connections

Topic F: Install and Configure IoT Devices

Labs: 6.9.3; 6.9.4; 6.9.5; 6.9.6; 6.10.4; 6.10.5

**Lesson 7: Implementing Client Virtualization and Cloud Computing**

Topic A: Configure Client-Side Virtualization

Topic B: Cloud Computing Concepts

Labs: No labs

**Lesson 8: Supporting and Troubleshooting Laptops**

Topic A: Use Laptop Features

Topic B: Install and Configure Laptop Hardware

Topic C: Troubleshoot Common Laptop Issues

Labs: 9.3.5; 9.3.6; 9.4.5 (practice questions)

**Day 4**

**Lesson 9: Supporting and Troubleshooting Mobile Devices**

Topic A: Mobile Device Types

Topic B: Connect and Configure Mobile Device Accessories

Topic C: Configure Mobile Device Network Connectivity

Topic D: Support Mobile Apps

Topic E: Secure Mobile Devices

Topic F: Troubleshoot Mobile Device Issues

Labs: 9.6.7; 9.7.4;

**Lesson 10: Installing, Configuring, and Troubleshooting Print Devices**

Topic A: Maintain Laser Printers

Topic B: Maintain Inkjet Printers

Topic C: Maintain Impact, Thermal, and 3D Printers

Topic D: Install and Configure Printers

Topic E: Troubleshoot Print Device Issues

Topic F: Install and Configure Imaging Devices

Labs: 4.3.3; 4.5.8; 4.6.4; 4.6.5

Non-Virtual Labs:

Operational Procedures - create and deploy an image using Clonezilla; configure Windows backup;

Capstone Testout - 14.1 - Build a computer from scratch (using our build PC kit); install an OS; connect it to the network; connect it to a printer - using all our devices. (Lab manual will be updated, when instructors have had a chance to build one of the kits). We need an additional kit (# 11) to use for spare parts and troubleshooting.

14.4 - Create a home office network; install and configure a wireless router (using one we provide)

14.6 - Troubleshoot a mobile device

Students need a USB drive for Clonezilla; CD to put the OS on; external hard drives to store/deploy the image.

**Day 5**

**Evaluation Time:** After the last lesson of class, students will be given 20 minutes to log into ACI Learning Learning Portal to access and complete the evaluation for their class.

**Assessment: 1 hour timed assessment (Break for 30 or 60 minute lunch)**

**Assessment Review:** If the assessment score is lower than 70%, after the initial assessment review the student will have option to retake another assessment.

GRADING

In order for students to successfully complete the course, they must meet the course participation/attendance and lab completion requirements. Additionally, students seeking an ACE credit recommendation must score a 70 percent or higher on the final exam. Students who are not seeking an ACE credit recommendation are not required to complete the final exam.

#### CompTIA A+ Practical Applications 1002

### COURSE DESCRIPTION

This course is designed for individuals who have basic computer user skills and who are interested in obtaining a job as an entry-level IT technician. This course is also designed for students who are seeking the CompTIA A+ certification and who want to prepare for the CompTIA A+ Core 2 220-1002 Certification.

To ensure your success in this course you should have experience with basic computer user skills, be able to complete tasks in a Microsoft Windows environment, be able to search for, browse and access information on the Internet and have a basic knowledge of computing concepts.

### COURSE OBJECTIVES

* Supporting Operating Systems
* Installing, Configuring and Maintaining Operating Systems
* Maintaining and Troubleshooting Microsoft Windows
* Configuring and Troubleshooting Networks
* Managing Users, Workstations, and Shared Resource
* Security Concepts
* Securing Workstations and Data
* Troubleshooting Workstations Security Issues
* Supporting and Troubleshooting Mobile Devices
* Implementing Operational Procedures

### course hours

|  |  |  |
| --- | --- | --- |
| **Number** | **Title** | **Contact Hours** |
| 220-1002 | CompTIA A+ Practical Applications | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

### REQUIRED COURSEWARE

* CompTIA A+ Certification, 220-1002 (ebook from CompTIA)
* ACI Learning Learning Management System Student Portal
* TestOut Test Prep
* Professor Messer Guides
* TestOut Labs and ACI Learning Labs

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs (virtual) and in-class
* Videos
* Assessments

### COURSE OUTLINE

**Day 1**

**Introductions/Policy Overview/Course Description**

**Lesson 1: Supporting Operation Systems**

Topic A: Identify Common Operation Systems

Topic B: Use Windows Features and Tools

Lab 12.1.13 – Use System Commands (Core 2 – Operating Systems)

Topic C: Manage Files in Windows

* Lab 11.2.5 – Manage Files (Core 2 – Operating Systems)
* Lab 11.2.9 – Manage Files and Folders (Core 2 – Operating Systems)

Topic D: Manage Disks in Windows

* Lab 5.6.3 – Create Volumes (Core 2 – Operating Systems)
* Lab 5.6.5 – Format Drives (Core 2 – Operating Systems)
* Lab 5.7.5 – Add Space to Existing Volumes (Core 2 – Operating Systems)
* Lab 5.8.4 – Implement Storage Spaces (Core 2 – Operating Systems)
* Lab 5.9.6 – Perform Disk Maintenance (Core 2 – Operating Systems)

Topic E: Manage Devices in Windows

* Lab 4.5.8 – Manage Devices (Core 2 – Software Troubleshooting)
* Lab 4.6.4 – Manage Devices 1 (Core 2 – Software Troubleshooting)
* Lab 4.6.5 – Manage Devices 2 (Core 2 – Software Troubleshooting)

**Lesson 2: Installing, configuring and Maintaining Operating Systems**

Topic A: Configure and Use Linux

* Lab 1.4.4 – Use Shell Commands (Core 2 – Operating Systems)
* Lab 1.4.5 – Shut Down a Linux System (Core 2 – Operating Systems)
* Lab 12.8.5 – Manage Linux Processes (Core 2 – Operating Systems)
* Lab 12.8.5 – Manage Linux Processes (Core 2 – Operating Systems)

Topic B: Configure and Use macOS

Topic C: Install and Upgrade Operation Systems

* Lab 10.3.3 – Prepare Disks for Installation (Core 2 – Operating Systems)
* Lab 10.3.5 – Install an Workstation Image using PXE (Core 2 – Operating Systems)

Topic D: Maintain OSs

* Lab 11.5.6 – Manage the Linux File System (Core 2 – Operating Systems)
* Lab 11.5.7 – Manage Linux File Ownership (Core 2 – Operating Systems)
* Lab 12.11.6 – Back Up the Computer (Core 2 – Operating Systems)
* Lab 12.11.7 – Configure File History (Core 2 – Operating Systems)
* Lab 12.12.3 – Create a Restore Point (Core 2 – Operating Systems)
* Lab 13.6.6 – Configure Windows Defender (Core 2 – Security)

**Lesson 3: Maintaining and Troubleshooting Microsoft Windows**

Topic A: Install and Manger Windows Applications

Topic B: Manage Windows Performance

Topic C: Troubleshoot Windows

**Day 2**

**Lesson 4: Configuring and Troubleshooting Networks**

Topic A: Configure Network Connections Settings

Topic B: Install and Configure SOHO Networks

Topic C: Configure SOHO Network Security

Topic D: Configure Remote Access

Topic E: Troubleshoot Network Connections

**Lesson 5: Managing Users, Workstations, and Shared Resource**

Topic A: Manage Users

* Lab 12.4.6 – Create User Accounts (Core 2 – Operating Systems)
* Lab 12.5.6 – Manage Users and Groups (Core 2 – Operating Systems)

Topic B: Configure Shared Resources

* Lab 11.4.6 – Share and Secure Folders (Core 2 – Security)

Topic C: Configure Active Directory Accounts and Policies

* Lab 12.4.3 – Join a Workstation to a Domain (Core 2 – Operating Systems)
* Lab 12.4.7 – Create OUs (Core 2 – Operating Systems)
* Lab 12.4.8 – Delete OUs (Core 2 – Operating Systems)

**Day 3**

**Lesson 6: Security Concepts**

Topic A: Logical Security Concept

Topic B: Threats and Vulnerabilities

Topic C: Physical Security Measures

**Lesson 7: Securing Workstations and Data**

Topic A: Implement Security Best Practices

* Lab 13.3.6 – Require a Screen Saver Password (Core 2 – Security)
* Lab 13.5.4 – Configure BIOS/UEFI Security (Core 2 – Security)

Topic B: Implement Data Projection Policies

* Lab 11.3.4 – Configure NTFS Permissions (Core 2 – Security)
* Lab 13.8.4 – Configure File Encryption (Core 2 – Security)

Topic C: Project Data during Incident Response

**Lesson 8: Troubleshooting Workstations Security Issues**

Topic A: Detect, Remove and Prevent Malware

Topic B: Troubleshoot Common Workstation Security Issues

**Day 4**

**Lesson 9: Supporting and Troubleshooting Mobile Devices**

Topic A: Secure Mobile Devices

Topic B: Troubleshoot Mobile Devices Issues

**Lesson 10: Implementing Operational Procedures**

Topic A: User Appropriate Safety Procedures

Topic B: Environmental Impacts and Controls

Topic C: Create and Maintain Documentation

* Lab 12.10.4 – Configure Windows Update (Core 2 – Operating Systems)
* Lab 12.10.8 – Update Firmware (Core 2 – Operating Systems)

Topic D: Implement Disaster Prevention and Recovery Methods

* Lab 2.5.6 – Install a UPS (Core 2 – Operational Procedures)

Topic E: Basic Scripting Concepts

Topic F: Professionalism and Communication

**Day 5**

**Evaluation Time:** After the last lesson of class, students will be given 20 minutes to log into ACI Learning Learning Portal to access and complete the evaluation for their class.

**Assessment: 1 hour timed assessment (Break for 30 or 60 minute lunch)**

**Assessment Review:** If the assessment score is lower than 70%, after the initial assessment review the student will have option to retake another assessment.

GRADING

In order for students to successfully complete the course, they must meet the course participation/attendance and lab completion requirements. Additionally, students seeking an ACE credit recommendation must score a 70 percent or higher on the final exam. Students who are not seeking an ACE credit recommendation are not required to complete the final exam.

#### CompTIA Network +

COURSE DESCRIPTION

The *CompTIA® Network+®* course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present the fundamental skills and concepts that you will need to use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ certification.

 Also, if your job duties include network troubleshooting, installation, or maintenance, or if you are preparing for any type of network-related career, it provides the background knowledge and skills you will require to be successful.

COURSE OBJECTIVES

Students will learn:

* Identify basic network theory concepts and major network communications methods.
* Describe bounded network media.
* Identify unbounded network media.
* Identify the major types of network implementations.
* Identify TCP/IP addressing and data delivery methods.
* Implement routing technologies.
* Identify the major services deployed on TCP/IP networks.
* Identify the infrastructure of a WAN implementation.
* Identify the components used in cloud computing and virtualization.
* Describe basic concepts related to network security.
* Prevent security breaches.
* Respond to security incidents.
* Identify the components of a remote network implementation.
* Identify the tools, methods, and techniques used in managing a network.
* Describe troubleshooting of issues on a network.

Targeted Job Roles

* Entry-level IT Professional

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Professional Helpdesk or Computer Support Experience
* CompTIA A+ Certification is helpful but not required

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| N10-007 | CompTIA Network + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Network+ N10-007

Course Developer: 30 Bird Media

Author: Clifford J. Coryea, Donald P. Tremblay, Adam A. Wilcox

Publish Date: 2017

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1: Fundamentals**

* Module A: Networking concepts
* Module B: Classifying networks
* Module C: Network models
* Module D: The troubleshooting process

**Chapter 2: Physical networks**

* Module A: Connection technologies
* Module B: Network devices
* Module C: Copper media
* Module D: Optical media
* Module E: Ethernet standards

**Day 2:**

**Chapter 3: TCP/IP networks**

* Module A: IP addressing
* Module B: Core protocols
* Module C: Network ports and applications

**Chapter 4: Internetworking**

* Module A: Switching
* Module B: Routing

**Chapter 5: Wireless LANs**

* Module A: Wireless networks
* Module B: Wireless LAN standards

**Day 3:**

**Chapter 6: Wide area networks**

* Module A: Internet connections
* Module B: WAN infrastructure

**Chapter 7: Cybersecurity principles**

* Module A: Goals and threats
* Module B: Digital security
* Module C: Transport encryption

**Day 4:**

**Chapter 8: Defending networks**

* Module A: Network security components
* Module B: Network authentication systems
* Module C: Hardening networks

**Chapter 9: Evolving network technologies**

* Module A: Network convergence
* Module B: Virtual and cloud systems

**Day 5:**

**Chapter 10: Network operations**

* Module A: Monitoring and optimization
* Module B: Fault tolerance and disaster recovery
* Module C: Incident response

**Chapter 11: Network planning**

* Module A: Network policy design
* Module B: Network installation
* Module C: Maintenance and upgrades

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

#### CompTIA security +

COURSE DESCRIPTION

*CompTIA® Security+® (SY0-601)* is the primary course you will need to take if your job responsibilities include securing network services, devices, and traffic in your organization. You can also take this course to prepare for the CompTIA Security+ certification. In this course, you will build on your knowledge of and professional experience with security fundamentals, networks, and organizational security as you acquire the specific skills required to implement basic security services on any type of computer network.

 This course can benefit you in two ways. If you intend to pass the CompTIA Security+ (SY0-601) certification, this course can be a significant part of your preparation. But certification is not the only key to professional success in the field of computer security. Today's job market demands individuals with demonstrable skills, and the information and activities in this course can help you build your computer security skill set so that you can confidently perform your duties in any security-related role.

COURSE OBJECTIVES

Students will learn:

* Identify the fundamental components of information security.
* Analyze risk.
* Identify various threats to information security.
* Conduct security assessments to detect vulnerabilities.
* Implement security for hosts and software.
* Implement security for networks.
* Manage identity and access.
* Implement cryptographic solutions in the organization.
* Implement security at the operational level.
* Address security incidents.
* Ensure the continuity of business operations in the event of an incident.

Targeted Job Roles

* IT Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* CompTIA A+ Certification is helpful but not required
* a fundamental understanding of computer and networking concepts
* six to nine months of helpdesk experience recommended

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| SY0-601 | CompTIA Security + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for night students.

REQUIRED TEXTBOOK

CompTIA Security+ SY0-601

Course Developer: CompTIA

Author: James Pengelly

Publish Date: 2020

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1: Security Fundamentals**

* Module A: Security concepts
* Module B: Risk management
* Module C: Vulnerability assessment

**Chapter 2: Understanding attacks**

* Module A: Understanding attackers
* Module B: Social engineering
* Module C: Malware
* Module D: Network attacks
* Module E: Application attacks

**Day 2:**

**Chapter 3: Cryptography**

* Module A: Cryptography concepts
* Module B: Public key infrastructure

**Chapter 4: Network fundamentals**

* Module A: Network components
* Module B: Network addressing
* Module C: Network ports and applications

**Chapter 5: Securing networks**

* Module A: Network security components
* Module B: Transport encryption
* Module C: Hardening networks
* Module D: Monitoring and detection

**Day 3:**

**Chapter 6: Securing hosts and data**

* Module A: Securing hosts
* Module B: Securing data
* Module C: Mobile device security

**Chapter 7: Securing network services**

* Module A: Securing applications
* Module B: Virtual and cloud systems

**Day 4:**

**Chapter 8: Authentication**

* Module A: Authentication factors
* Module B: Authentication protocols

**Chapter 9: Access control**

* Module A: Access control principles
* Module B: Account management

**Day 5:**

**Chapter 10: Organizational security**

* Module A: Security policies
* Module B: User training
* Module C: Physical security and safety

**Chapter 11: Disaster planning and recovery**

* Module A: Business continuity
* Module B: Fault tolerance and recovery
* Module C: Incident response

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

#### ITIL v3 foundations

COURSE DESCRIPTION

Based on the ITIL best practice service lifecycle methodology, this subject provides a practical understanding of the key concepts, principles, processes, and functions that enable successful IT Service Management (ITSM) provisioning. The course intent is to provide proven practical guidance on how to successfully introduce an integrated IT Service Management framework and how best practices can be adopted and adapted within an organization. It also prepares students for the ITIL Foundation Certification. This is for IT practitioners involved in the strategy, design, implementation and on-going delivery of business-used IT services and for anyone who requires an insight into Service Management best practices.

COURSE OBJECTIVES

Upon completion of the 5-Day ITIL Foundations training, participants will understand:

* Key concepts of ITIL
* Important principles for improving IT operations and project success
* Vital processes and functions
* Practical guidance for applying ITIL to everyday IT project situations
* How to align with business, control costs, and improve IT service quality
* Strategies to balance IT resources

Targeted Job Roles

* IT Professionals with an interest in Service Management

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| ITL-FND | ITIL v4 Foundations | 40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

ITIL 4 Foundation

Course Developer: Logical Operations

Authors: Patrick Von Schlag ITIL Expert

Laurie Perry

Publish Date2019

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1: Introduction to ITIL**

* ITIL Basics
* The Service Lifecycle

**Lesson 2: Service Strategy**

* Basic Concepts of Service Strategy
* The Financial Management Process
* The Service Portfolio Management Process
* The Demand Management Process
* The Business Relationship Management Process

**Lesson 3: Service Design**

* Basic Concepts of Service Design
* The Design Coordination Process
* The Service Level Management Process
* The Service Catalog Management Process
* The Availability Management Process
* The Capacity Management Process
* The Information Security Management Process
* IT Service Continuity Management
* The Supplier Management Process

**Lesson 4: Service Transition**

* Basic Concepts of Service Transition
* The Transition Planning and Support Process
* The Change Management Process
* The Service Asset and Configuration Management Process
* The Release and Deployment Management Process
* The Knowledge Management Process

**Lesson 5: Service Operation**

* Basic Concepts of Service Operation
* The Event Management Process
* The Incident Management Process
* The Problem Management Process
* The Request Fulfillment Process
* The Access Management Process

**Lesson 6: Service Operation Functions**

* The Service Desk Function
* The Technical Management Function
* The IT Operations Management Function
* The Application Management Function

**Lesson 7: Continual Service Improvement**

* Basic Concepts of Continual Service Improvement
* CSI Principles

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

## Network Support Specialist

### Program Description

Network Support Specialist is a certification program for entry-level network engineers that helps maximize investment in foundational networking knowledge and increase the value of an employer's network. Network Support Specialist is for Network Specialists, Network Administrators, and Network Support Engineers with 1-3 years of experience. The CCNA Routing and Switching validates the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks.

### Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

### Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| N10-007 | CompTIA Network+ | 20/20/0/40 |
| SY0-601 | CompTIA Security+ | 20/20/0/40 |
| CCNA 1 | Certified Cisco Network Administrator, CCNA Part 1 | 20/20/0/40 |
| CCNA 2 | Certified Cisco Network Administrator, CCNA Part 2 | 20/20/0/40 |

The approximate time required to complete this program is thirty days for day students and forty nights for evening students.

### Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for two weeks, and from 8:00 am to 12:00pm or 1:00pm to 5:00 for two weeks. Classes for evening students will be held Monday through Friday 6:00pm to 10:00pm. Night classes run for approximately eight weeks. For full day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minutes breaks dispersed throughout the day. For morning/afternoon/evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the class.

### Tuition and labs

Registration: $0  
Base Tuition: $11,618  
Labs: $762

Total Tuition: $12,380

### Targeted Job Roles

* Network Support Technician
* Network Support Specialist
* Network Administrators
* Network Support Engineer

### Course Descriptions

#### CompTIA Network +

COURSE DESCRIPTION

The *CompTIA® Network+®* course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present the fundamental skills and concepts that you will need to use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ certification.

 Also, if your job duties include network troubleshooting, installation, or maintenance, or if you are preparing for any type of network-related career, it provides the background knowledge and skills you will require to be successful.

COURSE OBJECTIVES

Students will learn:

* Identify basic network theory concepts and major network communications methods.
* Describe bounded network media.
* Identify unbounded network media.
* Identify the major types of network implementations.
* Identify TCP/IP addressing and data delivery methods.
* Implement routing technologies.
* Identify the major services deployed on TCP/IP networks.
* Identify the infrastructure of a WAN implementation.
* Identify the components used in cloud computing and virtualization.
* Describe basic concepts related to network security.
* Prevent security breaches.
* Respond to security incidents.
* Identify the components of a remote network implementation.
* Identify the tools, methods, and techniques used in managing a network.
* Describe troubleshooting of issues on a network.

Targeted Job Roles

* Entry-level IT Professional

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Professional Helpdesk or Computer Support Experience
* CompTIA A+ Certification is helpful but not required

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| N10-007 | CompTIA Network + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Network + N10-007

Course Developer: 30 Bird Media

Author: Clifford J. Coryea, Donald P. Tremblay, Adam A. Wilcox

Publish Date: 2017

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1: Fundamentals**

* Module A: Networking concepts
* Module B: Classifying networks
* Module C: Network models
* Module D: The troubleshooting process

**Chapter 2: Physical networks**

* Module A: Connection technologies
* Module B: Network devices
* Module C: Copper media
* Module D: Optical media
* Module E: Ethernet standards

**Day 2:**

**Chapter 3: TCP/IP networks**

* Module A: IP addressing
* Module B: Core protocols
* Module C: Network ports and applications

**Chapter 4: Internetworking**

* Module A: Switching
* Module B: Routing

**Chapter 5: Wireless LANs**

* Module A: Wireless networks
* Module B: Wireless LAN standards

**Day 3:**

**Chapter 6: Wide area networks**

* Module A: Internet connections
* Module B: WAN infrastructure

**Chapter 7: Cybersecurity principles**

* Module A: Goals and threats
* Module B: Digital security
* Module C: Transport encryption

**Day 4:**

**Chapter 8: Defending networks**

* Module A: Network security components
* Module B: Network authentication systems
* Module C: Hardening networks

**Chapter 9: Evolving network technologies**

* Module A: Network convergence
* Module B: Virtual and cloud systems

**Day 5:**

**Chapter 10: Network operations**

* Module A: Monitoring and optimization
* Module B: Fault tolerance and disaster recovery
* Module C: Incident response

**Chapter 11: Network planning**

* Module A: Network policy design
* Module B: Network installation
* Module C: Maintenance and upgrades

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

### CompTIA security +

COURSE DESCRIPTION

*CompTIA® Security+® (SY0-601)* is the primary course you will need to take if your job responsibilities include securing network services, devices, and traffic in your organization. You can also take this course to prepare for the CompTIA Security+ certification. In this course, you will build on your knowledge of and professional experience with security fundamentals, networks, and organizational security as you acquire the specific skills required to implement basic security services on any type of computer network.

 This course can benefit you in two ways. If you intend to pass the CompTIA Security+ (SY0-601) certification, this course can be a significant part of your preparation. But certification is not the only key to professional success in the field of computer security. Today's job market demands individuals with demonstrable skills, and the information and activities in this course can help you build your computer security skill set so that you can confidently perform your duties in any security-related role.

COURSE OBJECTIVES

Students will learn:

* Identify the fundamental components of information security.
* Analyze risk.
* Identify various threats to information security.
* Conduct security assessments to detect vulnerabilities.
* Implement security for hosts and software.
* Implement security for networks.
* Manage identity and access.
* Implement cryptographic solutions in the organization.
* Implement security at the operational level.
* Address security incidents.
* Ensure the continuity of business operations in the event of an incident.

Targeted Job Roles

* IT Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* CompTIA A+ Certification is helpful but not required
* a fundamental understanding of computer and networking concepts
* six to nine months of helpdesk experience recommended

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| SY0-601 | CompTIA Security + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for evening students.

REQUIRED TEXTBOOK

CompTIA Security+ SY0-601

Course Developer: CompTIA

Author: James Pengelly

Publish Date: 2020

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1:** **Comparing Security Roles and Security Controls**

* Topic 1A: Compare and Contrast Information Security Roles
* Topic 1B: Compare and Contrast Security Control and Framework Types

**Chapter 2:**  **Explaining Threat Actors and Threat Intelligence**

* Topic 2A: Explain Threat Actor Types and Attack Vectors
* Topic 2B: Explain Threat Intelligence Sources**Understanding attacks**

**Day 2:**

**Chapter 3: Performing Security Assessments**

* Topic 3A: Assess Organizational Security with Network Reconnaissance Tools
* Topic 3B: Explain Security Concerns with General Vulnerability Types
* Topic 3C: Summarize Vulnerability Scanning Techniques
* Topic 3D: Explain Penetration Testing Concepts

**Chapter 4:** **Identifying Social Engineering and Malware**

* Topic 4A: Compare and Contrast Social Engineering Techniques
* Topic 4B: Analyze Indicators of Malware-Based Attacks

**Day 3:**

**Chapter 5:** **Summarizing Basic Cyptographic Ciphers**

* Topic 5A: Compare and Contrast Basic Cyptographic Ciphers o
* Topic 5B: Summarize Cryptographic Modes of Operation
* Topic 5C: Summarize Cryptographic Use Cases and Weaknesses
* Topic 5D: Summarize Other Cryptographic Technologies

**Chapter 6:** **Implementing Public Key Infrastructure**

* Topic 6A: Implement Certificates and Certificate Authorities
* Topic 6B: Implement PKI Management

**Day 4:**

**Chapter 7: Implementing Authentication Controls**

* Topic 7A: Summarize Authentication Design Concepts
* Topic 7B: Implement Knowledge Based Authentication
* Topic 7C: Implement Authentication Technologies
* Topic 7D: Summarize Biometrics Authentication Concepts

**Chapter 8: Implementing a Secure Network Architecture**

* Topic 8A: Implement Identity and Account Types
* Topic 8B: Implement Account Policies
* Topic 8C: Implement Authorization Solutions
* Topic 8D: Explain the importance of Personnel Policies

**Day 5:**

**Chapter 9: Implementing Secure Network Designs**

* Topic 9A: Implement Secure Network Design
* Topic 9B: Implement Secure Switching and Routing
* Topic 9C: Implement Secure Wireless Infrastructure
* Topic 9D: Implements Load Balancers

**Chapter 10: Implementing Network Security Appliances**

* Topic 10A: Implement Firewalls and Proxy Servers
* Topic 10B: Implement Network Security Monitoring
* Topic 10C: Summarize the Use of SIEM

**Day 6:**

**Chapter 11:** **Implementing Secure Network Protocols**

* Topic 11A: Implement Secure Network Operations Protocols
* Topic 11B: Implement Secure Application Protocols
* Topic 11C: Implement Secure Remote Access Protocols

**Chapter 12: Implementing Host Security Solutions**

* Topic 12A: Implement Secure Firmware
* Topic 12B: Implement Endpoint Security
* Topic 12C: Explain Embedded System Security Implications

**Day 7:**

**Lesson 13: Implementing Secure Mobile Solutions**

* Topic 13A: Implementing Mobile Device Management
* Topic 13B: Implement Secure Mobile Device Connections

**Lesson 14: Summarizing Secure Application Concepts**

* Topic 14A: Analyze Indicators of Application Attacks
* Topic 14B: Analyze Indicators of Web Application Attacks
* Topic 14C: Summarize Secure Coding Practices
* Topic 14D: Implement Secure Script Environments
* Topic 14E: Summarize Deployment and Automation Concepts

**Lesson 15: Implementing Secure Cloud Solution**

* Topic 15A: Summarize Secure Cloud and Virtualization Services
* Topic 15B: Apply Cloud Security Solutions
* Topic 15C: Summarize Infrastructure as Code Concepts

**Day 8:**

**Lesson 16: Explaining Data Privacy and Protection Concepts**

* Topic 16A: Explain Privacy and Data Sensitivity Concepts
* Topic 16B: Explain Privacy and Data Protection Controls

**Lesson 17: Performing Incident Response**

* Topic 17A: Summarize Incident Response Procedures
* Topic 17B: Utilize Appropriate Data Sources For Incident Response
* Topic 17C: Apply Mitigation Controls

**Lesson 18: Explaining Digital Forensics**

* Topic 18A: Explain Key Aspects for Digital Forensics Documentation
* Topic 18B: Explain Key Aspects of Digital Forensics Evidence Acquisition

**Day 9:**

**Lesson 19: Summarizing Risk Management Concepts**

* Topic 19A: Explain Risk Management Processes and Concepts
* Topic 19B: Explain Business Impact Analysis Concepts

**Lesson 20: Implementing Cybersecurity Resilience**

* Topic 20A: Implement Redundancy Strategies
* Topic 20B: Implement Backup Strategies
* Topic 20C: Implement Cybersecurity Resilience Strategies

**Lesson 21: Explaining Physical Security**

* Topic 21A: Explain the Importance of Physical Site Security Controls
* Topic 21B: Explain the Importance of Physical Host Security Controls

**Day 10:**

• Overall Course Review

* + PBQs CertMaster Learn - Review
  + CertMaster Practice Exam - Review
  + Labs – Review

• ACE Assessment administered (1-hour timed assessment) last day of class only

* Assessment Review: If the assessment score is lower than 70% after the initial assessment review the student will have the option to retake the assessment

• Evaluation Time: Students will be given 20 minutes to access and complete the evaluation for the class

• To be eligible for exam voucher submit CertMaster Practice Exam to Mentor with 85% and above score (after class completion or graduation)

CCNA 1 & 2: Certified Cisco Network Administrator, CCNA

Program Description

Cisco Certified Network Associate (CCNA) Routing and Switching is a certification program for entry-level network engineers that helps maximize investment in foundational networking knowledge and increase the value of an employer's network. CCNA Routing and Switching is for Network Specialists, Network Administrators, and Network Support Engineers with 1-3 years of experience. The CCNA Routing and Switching validates the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks.

Prerequisites

Students should have basic computer literacy, and basic Windows navigation, Internet usage, and email usage skills.

Lesson Plan

* Lesson 1: Networking Fundamentals
* Topic A: Network Types
* Topic B: Network Components
* Topic C: Network Topologies
* Topic D: Network Models
* Topic E: Basic Networking Protocols
* Topic F: Transmission Media and Connectors
* Topic G: Introduction to Cisco Networks and Cisco IOS Commands
* Lesson 2: Configuring Switching
* Topic A: Switching Concepts
* Topic B: Configure Basic Switch Operation
* Topic C: Configure VLANs
* Topic D: Configure Interswitch Connectivity
* Lesson 3: Configuring IP Addressing
* Topic A: Configure IPv4 Addresses
* Topic B: Configure IPv4 Subnets
* Topic C: Configure IPv6 Addresses
* Topic D: Manage Network Addressing
* Lesson 4: Configuring Routing
* Topic A: Routing Basics
* Topic B: Interpret Routing Tables
* Topic C: Configure Static Routing
* Topic D: Configure Dynamic Routing
* Lesson 5: Configuring Wireless Connectivity
* Topic A: Wireless LANs
* Topic B: Manage WLAN Connections
* Topic C: Configure Clients for WLAN Access
* Lesson 6: Configuring IP Network Services
* Topic A: IP Network Services
* Topic B: Configure DHCP
* Topic C: Configure NAT
* Topic D: Configure NTP
* Topic E: Configure DNS
* Topic F: Perform Network Management
* Lesson 7: Security Fundamentals
* Topic A: Security Concepts
* Topic B: Manage Passwords
* Topic C: Configure Layer 2 Security
* Topic D: Configure Wireless Security
* Topic E: Remote Access Security
* Lesson 8: Automation and Programmability
* Topic A: Automation, Network Management, and Device Management
* Topic B: Controller-Based Networking and Software-Defined Networking
* Topic C: Programmability Concepts
* Lesson 9: Troubleshooting Network Issues
* Topic A: Troubleshooting Methodologies
* Topic B: Troubleshoot Interface and Cable Issues
* Topic C: Troubleshoot Switching Issues
* Topic D: Troubleshoot IPv4 and IPv6 Addressing Issues
* Topic E: Troubleshoot Routing Issues
* Topic F: Troubleshoot WLAN Issues
* Topic G: Troubleshoot Network Services Issues
* Topic H: Troubleshoot Network Management Issues
* Topic I: Troubleshoot Security Issues

## CCNA

### Program Description

The Cisco® Solutions: Implementation and Administration (CCNA 200-301) course builds on your existing user-level knowledge and experience with computing and networking to provide you with the knowledge and skills expected of an entry-level network administrator. It also addresses the content described in the exam objectives for the Certified Cisco Network Administrator (CCNA® 200-301). If you are pursuing a Cisco technical certification path, the CCNA 200.301 exam is your first step into the world of Cisco certification.

### Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

### Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| CCNA 1 | Certified Cisco Network Administrator, CCNA Part 1 | 20/20/0/40 |
| CCNA 2 | Certified Cisco Network Administrator, CCNA Part 2 | 20/20/0/40 |

The approximate time required to complete this program is ten days for day students and twenty nights for evening students.

### Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00PM for approximately four weeks. Classes for evening students will be held on Monday through Friday 6:00pm to 10:00pm. Night classes run for approximately eight weeks. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00 PM with four 10 minutes breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

### Tuition and labs

Registration: $0  
Base Tuition: $6,192  
Labs: $398

Total Tuition: $6,590

### Targeted Job Roles

* Network Specialist
* Network Administrators
* Network Support Engineer

### Course Descriptions

#### CCNA 1 & 2: Certified Cisco Network Administrator

COURSE DESCRIPTION

Cisco Certified Network Associate (CCNA) Routing and Switching is a certification program for entry-level network engineers that helps maximize investment in foundational networking knowledge and increase the value of an employer's network. CCNA Routing and Switching is for Network Specialists, Network Administrators, and Network Support Engineers with 1-3 years of experience. The CCNA Routing and Switching validates the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks.

COURSE OBJECTIVES

In this course, you will implement and administer networks by using Cisco solutions.

You will:

* Explain basic concepts related to networking.
* Configure switching.
* Configure IP addressing.
* Configure routing.
* Configure wireless connectivity.
* Configure IP network services.
* Explain basic network security concepts and practices.
* Explain the use of automation and programmability in network management tasks.
* Troubleshoot common network issues.

Targeted Job Roles

* Systems Administrators
* Networking Specialists

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| CCNA 1 | Certified Cisco Network Administrator, CCNA Part 1 | 20/20/0/40 |
| CCNA 2 | Certified Cisco Network Administrator, CCNA Part 2 | 20/20/0/40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

Logical Operations

CCENT

093042SC (Rev 1.0)

Print and Digital Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

* Lesson 1: Networking Fundamentals
* Topic A: Network Types
* Topic B: Network Components
* Topic C: Network Topologies
* Topic D: Network Models
* Topic E: Basic Networking Protocols
* Topic F: Transmission Media and Connectors
* Topic G: Introduction to Cisco Networks and Cisco IOS Commands
* Lesson 2: Configuring Switching
* Topic A: Switching Concepts
* Topic B: Configure Basic Switch Operation
* Topic C: Configure VLANs
* Topic D: Configure Interswitch Connectivity
* Lesson 3: Configuring IP Addressing
* Topic A: Configure IPv4 Addresses
* Topic B: Configure IPv4 Subnets
* Topic C: Configure IPv6 Addresses
* Topic D: Manage Network Addressing
* Lesson 4: Configuring Routing
* Topic A: Routing Basics
* Topic B: Interpret Routing Tables
* Topic C: Configure Static Routing
* Topic D: Configure Dynamic Routing
* Lesson 5: Configuring Wireless Connectivity
* Topic A: Wireless LANs
* Topic B: Manage WLAN Connections
* Topic C: Configure Clients for WLAN Access
* Lesson 6: Configuring IP Network Services
* Topic A: IP Network Services
* Topic B: Configure DHCP
* Topic C: Configure NAT
* Topic D: Configure NTP
* Topic E: Configure DNS
* Topic F: Perform Network Management
* Lesson 7: Security Fundamentals
* Topic A: Security Concepts
* Topic B: Manage Passwords
* Topic C: Configure Layer 2 Security
* Topic D: Configure Wireless Security
* Topic E: Remote Access Security
* Lesson 8: Automation and Programmability
* Topic A: Automation, Network Management, and Device Management
* Topic B: Controller-Based Networking and Software-Defined Networking
* Topic C: Programmability Concepts
* Lesson 9: Troubleshooting Network Issues
* Topic A: Troubleshooting Methodologies
* Topic B: Troubleshoot Interface and Cable Issues
* Topic C: Troubleshoot Switching Issues
* Topic D: Troubleshoot IPv4 and IPv6 Addressing Issues
* Topic E: Troubleshoot Routing Issues
* Topic F: Troubleshoot WLAN Issues
* Topic G: Troubleshoot Network Services Issues
* Topic H: Troubleshoot Network Management Issues
* Topic I: Troubleshoot Security Issues

Cybersecurity Specialist (CYBER)

Program Description

Battles between corporations, governments, and countries are no longer fought using physical force. Cyber war has begun and the consequences can be seen in everyday life.

This program is designed to help individuals get jobs as information security auditors, site administrators, computer forensics investigators.

This program will immerse the student into an interactive environment where they will be shown how to scan, test, hack and secure their own systems; emphasizing perimeter defenses, Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. It also presents a detailed methodological approach to computer forensics and evidence analysis, covering major forensic investigation scenarios that provide hands-on experience on various forensic investigation techniques and standard tools necessary to successfully carry-out a computer forensic investigation.

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the ACI Learning Basic Skills Test.

Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| SY0-601 | Security+ | 20/20/0/40 |
| 312-50 | Certified Ethical Hacker | 20/20/0/40 |
| 312-49 | Computer Hacking Forensics Investigator | 20/20/0/40 |

The approximate time required to complete this program is twenty five days for day students and thirty nights for evening students.

Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00PM for 5 days, and 8:00 am to 12:00 pm or 1:00 pm to 5:00 pm for twenty days. Classes for evening students will be held on Mondays through Fridays from 7:00PM to 11:00PM. Night classes run for approximately eight weeks. For full day students, an hour lunch break will be taken every day from 11:30AM to 12:30PM with four 10 minutes breaks dispersed throughout the day. For morning/afternoon/evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

Tuition and labs

Registration: $0  
Base Tuition: $9,160  
Labs: $1,325

Total Tuition: $10,485

Targeted Job Roles

* Information Security Specialist
* Information Security Auditor
* Site Security Administrator
* Computer forensics Investigator

Course Descriptions and Syllabi

#### CompTIA security +

COURSE DESCRIPTION

*CompTIA® Security+® (SY0-601)* is the primary course you will need to take if your job responsibilities include securing network services, devices, and traffic in your organization. You can also take this course to prepare for the CompTIA Security+ certification. In this course, you will build on your knowledge of and professional experience with security fundamentals, networks, and organizational security as you acquire the specific skills required to implement basic security services on any type of computer network.

 This course can benefit you in two ways. If you intend to pass the CompTIA Security+ (SY0-601) certification, this course can be a significant part of your preparation. But certification is not the only key to professional success in the field of computer security. Today's job market demands individuals with demonstrable skills, and the information and activities in this course can help you build your computer security skill set so that you can confidently perform your duties in any security-related role.

COURSE OBJECTIVES

* Identify the fundamental components of information security.
* Analyze risk.
* Identify various threats to information security.
* Conduct security assessments to detect vulnerabilities.
* Implement security for hosts and software.
* Implement security for networks.
* Manage identity and access.
* Implement cryptographic solutions in the organization.
* Implement security at the operational level.
* Address security incidents.
* Ensure the continuity of business operations in the event of an incident.

Targeted Job Roles

* IT Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* CompTIA A+ Certification is helpful but not required
* a fundamental understanding of computer and networking concepts
* six to nine months of helpdesk experience recommended

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| SY0-601 | CompTIA Security + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Security+ SY0-601

Course Developer: CompTIA

Author: James Pengelly

Publish Date: 2020

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1:** **Comparing Security Roles and Security Controls**

* Topic 1A: Compare and Contrast Information Security Roles
* Topic 1B: Compare and Contrast Security Control and Framework Types

**Chapter 2:**  **Explaining Threat Actors and Threat Intelligence**

* Topic 2A: Explain Threat Actor Types and Attack Vectors
* Topic 2B: Explain Threat Intelligence Sources**Understanding attacks**

**Day 2:**

**Chapter 3: Performing Security Assessments**

* Topic 3A: Assess Organizational Security with Network Reconnaissance Tools
* Topic 3B: Explain Security Concerns with General Vulnerability Types
* Topic 3C: Summarize Vulnerability Scanning Techniques
* Topic 3D: Explain Penetration Testing Concepts

**Chapter 4:** **Identifying Social Engineering and Malware**

* Topic 4A: Compare and Contrast Social Engineering Techniques
* Topic 4B: Analyze Indicators of Malware-Based Attacks

**Day 3:**

**Chapter 5:** **Summarizing Basic Cyptographic Ciphers**

* Topic 5A: Compare and Contrast Basic Cyptographic Ciphers o
* Topic 5B: Summarize Cryptographic Modes of Operation
* Topic 5C: Summarize Cryptographic Use Cases and Weaknesses
* Topic 5D: Summarize Other Cryptographic Technologies

**Chapter 6:** **Implementing Public Key Infrastructure**

* Topic 6A: Implement Certificates and Certificate Authorities
* Topic 6B: Implement PKI Management

**Day 4:**

**Chapter 7: Implementing Authentication Controls**

* Topic 7A: Summarize Authentication Design Concepts
* Topic 7B: Implement Knowledge Based Authentication
* Topic 7C: Implement Authentication Technologies
* Topic 7D: Summarize Biometrics Authentication Concepts

**Chapter 8: Implementing a Secure Network Architecture**

* Topic 8A: Implement Identity and Account Types
* Topic 8B: Implement Account Policies
* Topic 8C: Implement Authorization Solutions
* Topic 8D: Explain the importance of Personnel Policies

**Day 5:**

**Chapter 9: Implementing Secure Network Designs**

* Topic 9A: Implement Secure Network Design
* Topic 9B: Implement Secure Switching and Routing
* Topic 9C: Implement Secure Wireless Infrastructure
* Topic 9D: Implements Load Balancers

**Chapter 10: Implementing Network Security Appliances**

* Topic 10A: Implement Firewalls and Proxy Servers
* Topic 10B: Implement Network Security Monitoring
* Topic 10C: Summarize the Use of SIEM

**Day 6:**

**Chapter 11:** **Implementing Secure Network Protocols**

* Topic 11A: Implement Secure Network Operations Protocols
* Topic 11B: Implement Secure Application Protocols
* Topic 11C: Implement Secure Remote Access Protocols

**Chapter 12: Implementing Host Security Solutions**

* Topic 12A: Implement Secure Firmware
* Topic 12B: Implement Endpoint Security
* Topic 12C: Explain Embedded System Security Implications

**Day 7:**

**Lesson 13: Implementing Secure Mobile Solutions**

* Topic 13A: Implementing Mobile Device Management
* Topic 13B: Implement Secure Mobile Device Connections

**Lesson 14: Summarizing Secure Application Concepts**

* Topic 14A: Analyze Indicators of Application Attacks
* Topic 14B: Analyze Indicators of Web Application Attacks
* Topic 14C: Summarize Secure Coding Practices
* Topic 14D: Implement Secure Script Environments
* Topic 14E: Summarize Deployment and Automation Concepts

**Lesson 15: Implementing Secure Cloud Solution**

* Topic 15A: Summarize Secure Cloud and Virtualization Services
* Topic 15B: Apply Cloud Security Solutions
* Topic 15C: Summarize Infrastructure as Code Concepts

**Day 8:**

**Lesson 16: Explaining Data Privacy and Protection Concepts**

* Topic 16A: Explain Privacy and Data Sensitivity Concepts
* Topic 16B: Explain Privacy and Data Protection Controls

**Lesson 17: Performing Incident Response**

* Topic 17A: Summarize Incident Response Procedures
* Topic 17B: Utilize Appropriate Data Sources For Incident Response
* Topic 17C: Apply Mitigation Controls

**Lesson 18: Explaining Digital Forensics**

* Topic 18A: Explain Key Aspects for Digital Forensics Documentation
* Topic 18B: Explain Key Aspects of Digital Forensics Evidence Acquisition

**Day 9:**

**Lesson 19: Summarizing Risk Management Concepts**

* Topic 19A: Explain Risk Management Processes and Concepts
* Topic 19B: Explain Business Impact Analysis Concepts

**Lesson 20: Implementing Cybersecurity Resilience**

* Topic 20A: Implement Redundancy Strategies
* Topic 20B: Implement Backup Strategies
* Topic 20C: Implement Cybersecurity Resilience Strategies

**Lesson 21: Explaining Physical Security**

* Topic 21A: Explain the Importance of Physical Site Security Controls
* Topic 21B: Explain the Importance of Physical Host Security Controls

**Day 10:**

• Overall Course Review

* + PBQs CertMaster Learn - Review
  + CertMaster Practice Exam - Review
  + Labs – Review

• ACE Assessment administered (1-hour timed assessment) last day of class only

* Assessment Review: If the assessment score is lower than 70% after the initial assessment review the student will have the option to retake the assessment

• Evaluation Time: Students will be given 20 minutes to access and complete the evaluation for the class

• To be eligible for exam voucher submit CertMaster Practice Exam to Mentor with 85% and above score (after class completion or graduation)

##### Grading

Grading will be assigned as follows:

* For students to successfully complete the course, they must meet the course participation/attendance and homework completion requirements. Additionally, students seeking an ACE credit recommendation must score a 70 percent or higher on the final assessment.

#### CEH: Certified Ethical Hacker

COURSE DESCRIPTION

This course will immerse you into an interactive environment where you will be shown how to scan, test, hack and secure your own systems. The lab intensive environment gives you in-depth knowledge and practical experience with the current essential security systems. You will begin by understanding how perimeter defenses work and then be led into scanning and attacking your own networks, no real network is harmed. You will then learn how intruders escalate privileges and what steps can be taken to secure a system. You will also learn about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. When you leave this intensive 5 day class, you will have hands on understanding and experience in Ethical Hacking.

COURSE OBJECTIVES

* Students will learn:
* Background of technology and technological operations
* Risk and system analysis
* Systems securities and vulnerabilities
* Regulations and ethics

Targeted Job Roles

* Site Administrators
* Security Auditors
* Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| 312-50 CEH | Certified Ethical Hacker | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

EC-Council Digital Courseware

CEHv9 e-Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1: Introduction to Ethical Hacking**

* Information Security Overview
* Information Security Threats and Attack Vectors
* Hacking Concepts, Types, and Phases
* Ethical Concepts Hacking and Scopes
* Information Security Controls
* Physical Security
* Information Management
* Vulnerability Assessment
* Penetration Testing
* Security Laws and Standards

**Lesson 2: Footprinting and Reconnaissance**

* Footprinting Concepts
* Footprinting Methodology
* Footprinting Using Advanced Google Hacking Techniques
* Footprinting Tools
* Footprinting Countermeasures
* Footprinting Penetration Testing

**Lesson 3: Scanning Networks**

* Overview of Network Scanning
* CEH Scanning Methodology

**Lesson 4: Enumeration**

* Enumeration Concepts
* Enumerations Countermeasures
* Enumeration Penetration Testing

**Lesson 5: System Hacking**

* System Hacking: Goals
* CEH Hacking: Methodology
* CEH System Hacking Steps
* Escalating Privileges
* Executing Applications
* Spyware
* Defending Against Keyloggers
* Hiding Files
* Detecting Rootkits
* NTFS Data Stream
* Steganography/Steganlysis
* Covering Tracks

**Lesson 6: Malware Threats**

* Trojan Concepts
* Types of Trojans
* Virus and Worm Concepts
* Ransomware
* Malware Reverse Engineering
* Malware Detection
* Countermeasures
* Penetration Testing

**Lesson 7: Sniffing**

* Sniffing Concepts
* MAC/DHCP Attacks
* IDRP Spoofing
* ARP/DNS Poisoning
* Sniffing Tools
* Detection Techniques
* Counter Measures

**Lesson 8: Social Engineering**

* Social Engineering Concepts
* Social Engineering Techniques
* Identity Theft
* Social Engineering Countermeasures

**Lesson 9: Denial of Service**

* DoS/DDoS Concepts
* DoS/DDoS Attack Techniques
* Botnets
* DoS/DDos Attack Tools
* Counter Measures
* DoS/DDos Protection Tools

**Lesson 10: Session Hijacking**

* Session Hijacking Concepts
* Application Level Hijacking
* Network Level Hijacking
* Hijacking Tools
* Countermeasures

**Lesson 11: Hacking Web Servers**

* Webserver Concepts
* Webserver Attakcs
* Attack Methodology
* Webserver Attack Tools
* Patch Management
* Webserver Security Tools

**Lesson 12: Hacking Web Applications**

* Web App Concepts
* Web App Threats
* Web App Hacking Methodology
* Attack Web Servers
* Analyze Web Apps
* Authorization Attack Schemes
* Perform Injection Attacks
* Attack Data Connectivity

**Lesson 13: SQL Injection**

* SQL Injection Concepts
* Types of SQL Injection
* SQL Injection Methodology
* SQL Injection Tools
* Evasion Techniques
* Counter Measures
* Snort Rule Detection to SQL Injection Attacks
* Detection Tools

**Lesson 14: Hacking Wireless Networks**

* Wireless Statistics
* Wireless Concepts
* Wireless Encryption
* Breaking Encryption
* Defending Against WPA Cracking
* Wireless Threats
* Wireless Hacking Methodology
* WEP/WPA Cracking Tools
* Counter Measures
* Security Tools

**Lesson 15: Hacking Mobile Platforms**

* Mobile Platform Attack Vectors
* Hacking Android/IOS
* Hacking Windows/BlackBerry
* Mobile Device Management
* Mobile Security Guidelines and Tools

**Lesson 16: Evading IDS, Firewalls and Honeypots**

* IDS, Firewall and Honeypot Concepts
* IDS, Firewall and Honeypot Systems
* IDS/Firewall Evading Tools
* Detecting Honeypots
* Counter Measures

**Lesson 17: Cloud Computing**

* Introduction to Cloud Computing
* Cloud Computing Threats/Attacks
* Cloud Security
* Cloud Penetration Testing

**Lesson 18: Cryptography**

* Cryptography Concepts
* Encryption Algorithms
* Cryptography Tools
* Public Key Infrastructure
* Email Encryption
* Disk Encryption
* Cryptography Attacks
* Cryptanalysis Tools

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

#### Chfi: computer hacking forensic investigator

COURSE DESCRIPTION

The Computer Hacking Forensic Investigator program presents a detailed methodological approach to computer forensics and evidence analysis. It is a comprehensive course covering major forensic investigation scenarios that enable students to acquire hands-on experience on various forensic investigation techniques and standard tools necessary to successfully carry out a computer forensic investigation.

If you or your organization requires the knowledge or skills to identify, track, and prosecute the cybercriminals, then this is the course for you. This course helps students to excel in digital evidence acquisition, handling and analysis in a forensically sound manner. Acceptable in a court of law, these skills will lead to successful prosecutions in various types of security incidents such as data breaches, corporate espionage, insider threats and other intricate cases involving computer systems.

CHFI is a certification that gives a complete overview of the process that a forensic investigator must follow when investigating a cybercrime. It includes not only the right treatment of the digital evidence in order to be accepted in the Courts but also useful tools and techniques that can be applied to investigate an incident.

COURSE OBJECTIVES

* The computer forensic investigation process and the various legal issues involved
* Evidence searching, seizing and acquisition methodologies in a legal and forensically sound manner
* Different types of digital evidence, rules of evidence, digital evidence examination process, and electronic crime and digital evidence consideration by crime category
* Roles of first responder, first responder toolkit, securing and evaluating electronic crime scene, conducting preliminary interviews, documenting electronic crime scene, collecting and preserving electronic evidence, packaging and transporting electronic evidence, and reporting the crime scene
* How to set up a computer forensics lab and the tools involved in the lab
* Various file systems and how to boot a disk
* Gathering volatile and nonvolatile information from Windows
* Data acquisition and duplication rules, validation methods and tools required
* How to recover deleted files and deleted partitions in Windows, Mac OS X, and Linux
* The process involved in forensic investigation using AccessData FTK and EnCase
* Steganography and its techniques, Steganalysis, and image file forensics
* Password Cracking Concepts, tools, types of password attacks and how to investigate password protected files
* Different types of log capturing, log management, time synchronization, and log capturing tools
* How to investigate logs, network traffic, wireless attacks, and web attacks
* How to track e-mails and investigate e-mail crimes
* Mobile forensics and mobile forensics software and hardware tools
* How to write investigative reports

Targeted Job Roles

* Junior Computer Forensics Investigator
* Incident Response Technician
* Junior Computer Security Analyst

Admission Requirements

* Individuals applying for this program are required to:
* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge
* Certified Ethical Hacker (CEH) certification or equivalent experience

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| CHFI | Computer Hacking Forensic Investigator | 40 |

The approximate time required to complete this program is five days for day students, and approximately 10 nights for night students.

REQUIRED TEXTBOOK

EC-Council Digital Courseware

CHFI v9 e-Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson: 1**

* Computer Forensics in Today’s World
* Computer Forensics Investigation Process
* Understanding Hard Discs and File Systems

**Lesson: 2**

* Operating Systems Forensics
* Defeating Anti-Forensic Techniques
* Data Acquisition and Duplication

**Lesson: 3**

* Network Forensics
* Investigating Web Attacks
* Database Forensics

**Lesson: 4**

* Cloud Forensics
* Malware Forensics
* Investigating Email Crimes

**Lesson: 5**

* Mobile Forensics
* Investigative Reports

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

## STPM – Senior technology Project manager

### Program Description

This program is based on the Project Management Professional (PMP) and Service Management (ITIL) credentials. The PMP is one of the most important industry-recognized certification for IT project managers. Globally recognized and demanded, the PMP demonstrates that students have the experience, education and competency to lead and direct projects. This recognition is seen through increased marketability to employers and higher salary; according to the PMI Project Management Salary Survey–Seventh Edition, this certification positively impacts project manager salaries.

Our PMP program has a strong IT orientation and covers a number of foundational IT management skills in addition to the core project management skills. The program introduces the principles and core elements of project management and IT service management (ITSM) based on ITIL framework, then moves into advanced project management principles including topics that prepare the student for the PMP certification.

### Admission Requirements

Individuals applying for this program are required to have a bachelor’s degree and 4,500 hours of Project Management experience in the five PM process groups, OR, a secondary school diploma and 7,500 hours of PM experience in the five process groups.

### Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| ITIL-FND | ITIL Foundations | 20/20/0/40 |
| PMP-EP | PMP Preparation | 40/0/0/40 |

The approximate time required to complete this program is ten days for day students and twenty nights for evening students.

### Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for ten days. Classes for evening students will be held Monday through Friday, 6:00 to 10:00 pm. Night classes run for approximately twenty days. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00 PM with four 10 minutes breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

### Tuition and labs

Registration: $0  
Base Tuition: $5,399  
Labs: $191

Total Tuition: $5,590

### Targeted Job Roles

* Project Manager
* Business Analyst
* Service Delivery Manager
* Incident Manager
* Engagement Manager
* Client Service Manager
* Technical Support Manager
* Software Engineering Manager
* QA Analyst

### Course Descriptions

#### ITIL v4 foundations

COURSE DESCRIPTION

Based on the ITIL best practice service lifecycle methodology, this subject provides a practical understanding of the key concepts, principles, processes, and functions that enable successful IT Service Management (ITSM) provisioning. The course intent is to provide proven practical guidance on how to successfully introduce an integrated IT Service Management framework and how best practices can be adopted and adapted within an organization. It also prepares students for the ITIL Foundation Certification. This is for IT practitioners involved in the strategy, design, implementation and on-going delivery of business-used IT services and for anyone who requires an insight into Service Management best practices.

COURSE OBJECTIVES

Upon completion of the 5-Day ITIL Foundations training, participants will understand:

* Key concepts of ITIL
* Important principles for improving IT operations and project success
* Vital processes and functions
* Practical guidance for applying ITIL to everyday IT project situations
* How to align with business, control costs, and improve IT service quality
* Strategies to balance IT resources

Targeted Job Roles

* IT Professionals with an interest in Service Management

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| ITL-FND | ITIL v4 Foundations | 40 |

The approximate time required to complete this program is five days for day students, and approximately 10 nights for night students.

REQUIRED TEXTBOOK

ITIL 4 Foundation

Course Developer: Logical Operations

Authors: Patrick Von Schlag ITIL Expert

Laurie Perry

Publish Date2019

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1**

Module 1: Introduction

* Introduction/Housekeeping
* Introduction to key ITIL concepts
* IT as a Service
* Introduction to processes and process management
* The Service Lifecycle approach

Module 2: Service Strategy

* Purpose, goal, objectives & Scope
* Value Creation through Services
* Assets - Resources and Capabilities
* Service Strategy - Main activities
* Service Strategy processes
* Service Portfolio management
* Demand management
* Financial management
* Business Relationship Management

**Day 2**

Module 3: Service Design

* Purpose, goal, objectives & Scope
* Service Design processes
* The 4 P's
* Service Design aspects
* Service Catalog Management
* Service Level Management
* Capacity Management
* Availability Management
* IT Service Continuity Management
* Service Portfolio
* Information Security Management
* Supplier management
* Design Coordination

Module 4: Service Transition

* Purpose, goal, objectives & Scope
* Service Transition value to the business
* Technology and architecture in Service Transition
* Service Transition Processes
* Change Management
* The 7 R's of Change Management
* Service Asset and Configuration Management
* Release and Deployment Management
* Knowledge Management

**Day 3**

Module 5: Service Operation

* Purpose, goal, objectives & Scope
* Service Operation definitions
* The Service Desk
* Technical Management
* Application Management
* IT Operations Management
* Service Operations Processes
* Event Management
* Request Fulfillment
* Problem Management
* Access Management

Module 6: Continual Service Improvement

* Purpose, goal, objectives & Scope
* Models and Processes
* The Deming Cycle
* Measurement and metrics
* Continual Service Improvement activities
* Risk management
* Continual Service Improvement interfaces
* Interface with Service Level Management

**Day 4**

* Review of Service Strategy
* Review of Service Design
* Review of Service Transition
* Review of Service Operation
* Review of Continual Service Improvement

**Day 5**

* Certification prep
* Certification Attempt

Grading

Grading will be assigned as follows:

* Attendance: 75%
* Exercise Participation: 25%

#### CAPM/PMP- Project Management Professional

COURSE DESCRIPTION

You can find PMPs leading projects in nearly every country and, unlike other certifications that focus on a particular geography or domain, the PMP® is truly global. As a PMP, you can work in virtually any industry, with any methodology and in any location. The PMP signifies that you speak and understand the global language of project management and connects you to a community of professionals, organizations and experts worldwide.

This course provides an intensive review of the course matter tested on the Project Management Institute’s Project Management Professional (PMP) certification. This course will provide a summary review of the nine knowledge areas and five process groups covered in A Guide to the Project Management Body of Knowledge (PMBOK® Guide). Participants will improve their test-taking skills by completing sample certifications totaling 200 questions and by discussing the rationale behind both correct and incorrect answers. The program is specifically designed to maximize the probability that you will succeed in passing the PMP the first time. Each student will receive a student manual including review materials, key definitions and formulas, sample questions and answers.

COURSE OBJECTIVES

Students will learn:

* Initiating Domains.
* Planning Domains.
* Executing Domains.
* Monitoring Domains.
* Closing Domains.

Targeted Job Roles

* Project Managers

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| PMP-EP | Project Management Professional | 40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

Project Management Institute

PMBOK 6th Edition

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1:**

Module 1: Project Management Fundamentals

* Key Project Management Definitions
* Role of the Project Manager
* Knowledge Areas and Process Groups
* Project Lifecycle Models
* Project Processes
* Organizational Influences on Project Management
* Project Maturity Models

Module 2: Project Initiation

* Project Selection Process
* Project Charter Elements
* Exercise 1: Prepare Project Charter and Milestone Schedule
* Stakeholder Identification
* Exercise 2: Identify Stakeholders

Module 3: Planning the Project

* Project Requirements
* Class Exercise: Define Case Study Requirements
* Scope Definition & Management
* Work Breakdown Structure
* Exercise 3: Prepare WBS
* Schedule Development
* Define Activities
* Sequence Activities
* Estimate Durations
* Develop Schedule
* Exercise 4: Prepare Project Schedule using Critical Path Method

**Lesson 2:**

Module 3: Planning the Project (continued)

* Cost Estimating and Budgeting
* Project Risk Management
* Risk Identification
* Risk Analysis
* Risk Response Planning
* Exercise 5: Prepare Risk Management Plan
* Project Communications
* Managing Expectations
* Stakeholder Communications
* Assigning Responsibilities using a RACI Chart
* Exercise 6: Prepare RACI Chart & Communications Plan

Module 4: Executing, Monitoring and Controlling the Project

* Integrated Change Control
* Exercise 7: Decide on Change Order Resolution
* Risk Monitoring and Control
* Exercise 8: Manage Risk Event

Module 5: Project Close-out

* Project Closing and Acceptance
* Project Archives and Lessons Learned

Course Wrap-up

* Review of Key Learning's & How to Apply to Projects

**Lesson 3:**

Module 6: Introduction and PMP® Program Overview

* Applying for and Taking the PMP
* Strategies: General and Question-by-Question

Module 7: Project Management Framework

* Project Life Cycles and Stakeholder Management
* The Triple Constraint and Organizational Issues

Module 8: Project Scope Management

* Initiating the Project: Project Plans
* Work Breakdown Structures

**Lesson 4:**

Module 9: Project Time Management

* Project Schedules and Logic Diagramming
* Critical Path Analysis and Performance Measurement

Module 10: Project Human Resource Management

* Project Manager Responsibilities
* Power & Conflict Management

Module 11: Project Quality Management

* Project Management and Quality management
* Statistical Process Control

Module 12: Project Cost Management

* Estimating versus Pricing
* Financial Analysis

**Lesson 5:**

Module 13: Project Procurement Management

* Procurement Planning
* Business Issues, Selection, and Evaluation

Module 14: Project Risk Management

* Expected Values
* Decision Trees and Cause and Effect

Module 15: Project Communication Management

* Tools and Techniques
* Reporting and Lessons Learned

Module 16: Professional Responsibility

* Professional Responsibility
* Ethics

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

Technical support specialist (tSs)

Program Description

This program is designed to quickly help individuals get to work in entry level jobs in the field of IT as Technical Support Specialists. This program develops the skills required to perform the following job functions:

* Install, build, maintain, and configure personal computers, laptop computers, and printers
* Principles of physical and TCP/IP networks, as well as the operational and professional procedures as an IT technician
* Support personal computers, mobile devices, and small networks in a business setting
* Troubleshoot hardware and software
* Install and configure Windows and other Operating Systems
* Examine server hardware and software, disaster recovery strategies
* Perform installation, troubleshooting, and management functions in the Windows Client operating system environment.
* The program also introduces the principles and core elements of IT service management (ITSM) based on ITIL framework

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| ITIL | ITIL Foundations | 20/20/0/40 |
| A+ 1001 | CompTIA A+ Essentials | 20/20/0/40 |
| A+ 1002 | CompTIA A+ Practical Applications | 20/20/0/40 |

The approximate time required to complete this program is five weeks for day students and six weeks for evening students.

Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for 5 days, and then either 8:00 am to 12pm mornings or 1:00pm to 5:00 pm afternoons for twenty days. Classes for evening students will be held on Monday through Friday 7:00 to 11:00pm. For full day students, an hour lunch break will be taken every day from 11:30AM to 12:30PM with four 10 minutes breaks dispersed throughout the day for full day students. For morning/afternoon/evening students, there will be no meal time allowed but there will be two 10 minute breaks taken.

Tuition and labs

Registration: $0  
Base Tuition: $7,818  
Labs: $267  
Total Tuition: $8,085

Targeted Job Roles

* Technical Support Specialist
* Helpdesk Technician
* Computer Technician
* IT Support Specialist

Course Descriptions and Syllabi

#### ITIL v3 foundations

COURSE DESCRIPTION

Based on the ITIL best practice service lifecycle methodology, this subject provides a practical understanding of the key concepts, principles, processes, and functions that enable successful IT Service Management (ITSM) provisioning. The course intent is to provide proven practical guidance on how to successfully introduce an integrated IT Service Management framework and how best practices can be adopted and adapted within an organization. It also prepares students for the ITIL Foundation Certification. This is for IT practitioners involved in the strategy, design, implementation and on-going delivery of business-used IT services and for anyone who requires an insight into Service Management best practices.

course OBJECTIVES

Upon completion of the 5-Day ITIL Foundations training, participants will understand:

* Key concepts of ITIL
* Important principles for improving IT operations and project success
* Vital processes and functions
* Practical guidance for applying ITIL to everyday IT project situations
* How to align with business, control costs, and improve IT service quality
* Strategies to balance IT resources

Targeted Job Roles

* IT Professionals with an interest in Service Management

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| ITL-FND | ITIL v4 Foundations | 40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

ITIL 4 Foundation

Course Developer: Logical Operations

Authors: Patrick Von Schlag ITIL Expert

Laurie Perry

Publish Date2019

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1**

Module 1: Introduction

* Introduction/Housekeeping
* Introduction to key ITIL concepts
* IT as a Service
* Introduction to processes and process management
* The Service Lifecycle approach

Module 2: Service Strategy

* Purpose, goal, objectives & Scope
* Value Creation through Services
* Assets - Resources and Capabilities
* Service Strategy - Main activities
* Service Strategy processes
* Service Portfolio management
* Demand management
* Financial management
* Business Relationship Management

**Day 2**

Module 3: Service Design

* Purpose, goal, objectives & Scope
* Service Design processes
* The 4 P's
* Service Design aspects
* Service Catalog Management
* Service Level Management
* Capacity Management
* Availability Management
* IT Service Continuity Management
* Service Portfolio
* Information Security Management
* Supplier management
* Design Coordination

Module 4: Service Transition

* Purpose, goal, objectives & Scope
* Service Transition value to the business
* Technology and architecture in Service Transition
* Service Transition Processes
* Change Management
* The 7 R's of Change Management
* Service Asset and Configuration Management
* Release and Deployment Management
* Knowledge Management

**Day 3**

Module 5: Service Operation

* Purpose, goal, objectives & Scope
* Service Operation definitions
* The Service Desk
* Technical Management
* Application Management
* IT Operations Management
* Service Operations Processes
* Event Management
* Request Fulfillment
* Problem Management
* Access Management

Module 6: Continual Service Improvement

* Purpose, goal, objectives & Scope
* Models and Processes
* The Deming Cycle
* Measurement and metrics
* Continual Service Improvement activities
* Risk management
* Continual Service Improvement interfaces
* Interface with Service Level Management

**Day 4**

* Review of Service Strategy
* Review of Service Design
* Review of Service Transition
* Review of Service Operation
* Review of Continual Service Improvement

**Day 5**

* Certification prep
* Certification Attempt

##### Grading

Grading will be assigned as follows:

* Attendance: 75%
* Exercise Participation: 25%

#### CompTIA A+ 1001 Essentials

This course will build on the student's existing user-level knowledge and experience with personal computer (PC) hardware to present fundamental skills and concepts that are used on the job. In this course, the student will acquire the essential skills and information needed to install, configure, troubleshoot, upgrade, and perform preventive maintenance on PCs and mobile device hardware.

The CompTIA A+ course can benefit the student in two ways. Whether working in a   
mobile or corporate environment with a high level of face-to-face customer interaction, where client   
communication and client training are important, or in an environment with limited customer   
interaction and an emphasis on hardware activities, this course provides the background knowledge and skills required to be a successful A+ technician.

In this course, the student will install, configure, optimize, troubleshoot, repair, upgrade, and perform preventive maintenance on personal computers, digital devices, and operating systems.

COURSE OBJECTIVES   
**Students will learn:**

* Install and configure PC system unit components and peripheral devices.
* Install, configure, and troubleshoot display and multimedia devices.
* Install, configure, and troubleshoot storage devices.
* Install, configure, and troubleshoot internal system components.
* Explain network infrastructure concepts.
* Configure and troubleshoot network connections.
* Implement client virtualization and cloud computing.
* Support and troubleshoot laptops.
* Support and troubleshoot mobile devices.
* Install, configure, and troubleshoot print devices.

### cOURSE hOURS

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| A+ 1001 | CompTIA A+ Essentials | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

### REQUIRED COURSEWARE

* CompTIA A+ Certification, 220-1001 (ebook from CompTIA)
* ACI Learning Learning Management System Student Portal
* TestOut Test Prep
* Professor Messer Guides
* TestOut Labs and ACI Learning Labs

### INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs (virtual)
* Hand on in-class PC build
* Videos
* Assessments

### COURSE Outline

**Day 1**

**Introductions/Policy Overview/Course Description**

**Lesson 1: Installing and Configuring PC Components**

Topic A: Use Appropriate Safety Procedures

Topic B: PC Components

Topic C: Common Connection Interfaces

Topic D: Install Peripheral Devices

Topic E: Troubleshooting Methodology

Labs: 1.1.3; 1.1.5; 1.2.7; 2.5.6;

**Lesson 2: Installing, Configuring, and Troubleshooting Display and Multimedia Devices**

Topic A: Install and Configure Display Devices

Topic B: Troubleshoot Display Devices

Topic C: Install and Configure Multimedia Devices

Labs: 3.12.5; 3.13.7;

**Day 2**

**Lesson 3: Installing, Configuring, and Troubleshooting Storage Devices**

Topic A: Install System Memory

Topic B: Install and Configure Mass Storage Devices

Topic C: Install and Configure Removable Storage

Topic D: Configure RAID

Topic E: Troubleshoot Storage Devices

Lab: 3.8.3; 3.8.7; 3.9.4; 3.9.5; 3.11.4;

**Lesson 4: Installing, Configuring, and Troubleshooting Internal System Components**

Topic A: Install and Upgrade CPUs

Topic B: Configure and Update BIOS/UEFI

Topic C: Install Power Supplies

Topic D: Troubleshoot Internal System Components

Topic E: Configure a Custom PC

Labs: Internal Components - 3.2.5; 3.3.5; 3.4.3; 3.4.4; 3.5.7; 3.6.3; 3.6.4;

Labs: Peripheral - 4.1.3; 4.2.3;

**Lesson 5: Network Infrastructure Concepts**

Topic A: Wired Networks

Topic B: Network Hardware Devices

Topic C: Wireless Networks

Topic D: Internet Connection Types

Topic E: Network Configuration Concepts

Topic F: Network Services

Labs: Wired - 6.2.6; 6.6.5; 6.6.6; 6.8.3; 6.8.4; (build a CAT 5 cable and test)

Labs: Wireless - 7.1.7; 7.1.8; 7.1.9; 7.1.10; 7.3.7; 7.4.4; 7.5.3 (practice questions)

**Day 3**

**Lesson 6: Configuring and Troubleshooting Networks**

Topic A: Configure Network Connection Settings

Topic B: Install and Configure SOHO Networks

Topic C: Configure SOHO Network Security

Topic D: Configure Remote Access

Topic E: Troubleshoot Network Connections

Topic F: Install and Configure IoT Devices

Labs: 6.9.3; 6.9.4; 6.9.5; 6.9.6; 6.10.4; 6.10.5

**Lesson 7: Implementing Client Virtualization and Cloud Computing**

Topic A: Configure Client-Side Virtualization

Topic B: Cloud Computing Concepts

Labs: No labs

**Lesson 8: Supporting and Troubleshooting Laptops**

Topic A: Use Laptop Features

Topic B: Install and Configure Laptop Hardware

Topic C: Troubleshoot Common Laptop Issues

Labs: 9.3.5; 9.3.6; 9.4.5 (practice questions)

**Day 4**

**Lesson 9: Supporting and Troubleshooting Mobile Devices**

Topic A: Mobile Device Types

Topic B: Connect and Configure Mobile Device Accessories

Topic C: Configure Mobile Device Network Connectivity

Topic D: Support Mobile Apps

Topic E: Secure Mobile Devices

Topic F: Troubleshoot Mobile Device Issues

Labs: 9.6.7; 9.7.4;

**Lesson 10: Installing, Configuring, and Troubleshooting Print Devices**

Topic A: Maintain Laser Printers

Topic B: Maintain Inkjet Printers

Topic C: Maintain Impact, Thermal, and 3D Printers

Topic D: Install and Configure Printers

Topic E: Troubleshoot Print Device Issues

Topic F: Install and Configure Imaging Devices

Labs: 4.3.3; 4.5.8; 4.6.4; 4.6.5

Non-Virtual Labs:

Operational Procedures - create and deploy an image using Clonezilla; configure Windows backup;

Capstone Testout - 14.1 - Build a computer from scratch (using our build PC kit); install an OS; connect it to the network; connect it to a printer - using all our devices. (Lab manual will be updated, when instructors have had a chance to build one of the kits). We need an additional kit (# 11) to use for spare parts and troubleshooting.

14.4 - Create a home office network; install and configure a wireless router (using one we provide)

14.6 - Troubleshoot a mobile device

Students need a USB drive for Clonezilla; CD to put the OS on; external hard drives to store/deploy the image.

**Day 5**

**Evaluation Time:** After the last lesson of class, students will be given 20 minutes to log into ACI Learning Learning Portal to access and complete the evaluation for their class.

**Assessment: 1 hour timed assessment (Break for 30 or 60 minute lunch)**

**Assessment Review:** If the assessment score is lower than 70%, after the initial assessment review the student will have option to retake another assessment.

#### CompTIA A+ Practical Applications 1002

### COURSE DESCRIPTION

This course is designed for individuals who have basic computer user skills and who are interested in obtaining a job as an entry-level IT technician. This course is also designed for students who are seeking the CompTIA A+ certification. To ensure your success in this course you should have experience with basic computer user skills, be able to complete tasks in a Microsoft Windows environment, be able to search for, browse and access information on the Internet and have a basic knowledge of computing concepts.

### COURSE OBJECTIVES

Students will learn:

* Supporting Operating Systems
* Installing, Configuring and Maintaining Operating Systems
* Maintaining and Troubleshooting Microsoft Windows
* Configuring and Troubleshooting Networks
* Managing Users, Workstations, and Shared Resource
* Security Concepts
* Securing Workstations and Data
* Troubleshooting Workstations Security Issues
* Supporting and Troubleshooting Mobile Devices
* Implementing Operational Procedures

### COURSE HOURS

|  |  |  |
| --- | --- | --- |
| **Number** | **Title** | **Contact Hours** |
| 220-1002 | CompTIA A+ Practical Applications | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

### REQUIRED COURSEWARE

* CompTIA A+ Certification, 220-1002 (ebook from CompTIA)
* ACI Learning Learning Management System Student Portal
* TestOut Test Prep
* Professor Messer Guides
* TestOut Labs and ACI Learning Labs

### INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs (virtual) and in-class
* Videos
* Assessments

### COURSE OUTLIne

**Day 1**

**Introductions/Policy Overview/Course Description**

**Lesson 1: Supporting Operation Systems**

Topic A: Identify Common Operation Systems

Topic B: Use Windows Features and Tools

Lab 12.1.13 – Use System Commands (Core 2 – Operating Systems)

Topic C: Manage Files in Windows

* Lab 11.2.5 – Manage Files (Core 2 – Operating Systems)
* Lab 11.2.9 – Manage Files and Folders (Core 2 – Operating Systems)

Topic D: Manage Disks in Windows

* Lab 5.6.3 – Create Volumes (Core 2 – Operating Systems)
* Lab 5.6.5 – Format Drives (Core 2 – Operating Systems)
* Lab 5.7.5 – Add Space to Existing Volumes (Core 2 – Operating Systems)
* Lab 5.8.4 – Implement Storage Spaces (Core 2 – Operating Systems)
* Lab 5.9.6 – Perform Disk Maintenance (Core 2 – Operating Systems)

Topic E: Manage Devices in Windows

* Lab 4.5.8 – Manage Devices (Core 2 – Software Troubleshooting)
* Lab 4.6.4 – Manage Devices 1 (Core 2 – Software Troubleshooting)
* Lab 4.6.5 – Manage Devices 2 (Core 2 – Software Troubleshooting)

**Lesson 2: Installing, configuring and Maintaining Operating Systems**

Topic A: Configure and Use Linux

* Lab 1.4.4 – Use Shell Commands (Core 2 – Operating Systems)
* Lab 1.4.5 – Shut Down a Linux System (Core 2 – Operating Systems)
* Lab 12.8.5 – Manage Linux Processes (Core 2 – Operating Systems)
* Lab 12.8.5 – Manage Linux Processes (Core 2 – Operating Systems)

Topic B: Configure and Use macOS

Topic C: Install and Upgrade Operation Systems

* Lab 10.3.3 – Prepare Disks for Installation (Core 2 – Operating Systems)
* Lab 10.3.5 – Install an Workstation Image using PXE (Core 2 – Operating Systems)

Topic D: Maintain OSs

* Lab 11.5.6 – Manage the Linux File System (Core 2 – Operating Systems)
* Lab 11.5.7 – Manage Linux File Ownership (Core 2 – Operating Systems)
* Lab 12.11.6 – Back Up the Computer (Core 2 – Operating Systems)
* Lab 12.11.7 – Configure File History (Core 2 – Operating Systems)
* Lab 12.12.3 – Create a Restore Point (Core 2 – Operating Systems)
* Lab 13.6.6 – Configure Windows Defender (Core 2 – Security)

**Lesson 3: Maintaining and Troubleshooting Microsoft Windows**

Topic A: Install and Manger Windows Applications

Topic B: Manage Windows Performance

Topic C: Troubleshoot Windows

**Day 2**

**Lesson 4: Configuring and Troubleshooting Networks**

Topic A: Configure Network Connections Settings

Topic B: Install and Configure SOHO Networks

Topic C: Configure SOHO Network Security

Topic D: Configure Remote Access

Topic E: Troubleshoot Network Connections

**Lesson 5: Managing Users, Workstations, and Shared Resource**

Topic A: Manage Users

* Lab 12.4.6 – Create User Accounts (Core 2 – Operating Systems)
* Lab 12.5.6 – Manage Users and Groups (Core 2 – Operating Systems)

Topic B: Configure Shared Resources

* Lab 11.4.6 – Share and Secure Folders (Core 2 – Security)

Topic C: Configure Active Directory Accounts and Policies

* Lab 12.4.3 – Join a Workstation to a Domain (Core 2 – Operating Systems)
* Lab 12.4.7 – Create OUs (Core 2 – Operating Systems)
* Lab 12.4.8 – Delete OUs (Core 2 – Operating Systems)

**Day 3**

**Lesson 6: Security Concepts**

Topic A: Logical Security Concept

Topic B: Threats and Vulnerabilities

Topic C: Physical Security Measures

**Lesson 7: Securing Workstations and Data**

Topic A: Implement Security Best Practices

* Lab 13.3.6 – Require a Screen Saver Password (Core 2 – Security)
* Lab 13.5.4 – Configure BIOS/UEFI Security (Core 2 – Security)

Topic B: Implement Data Projection Policies

* Lab 11.3.4 – Configure NTFS Permissions (Core 2 – Security)
* Lab 13.8.4 – Configure File Encryption (Core 2 – Security)

Topic C: Project Data during Incident Response

**Lesson 8: Troubleshooting Workstations Security Issues**

Topic A: Detect, Remove and Prevent Malware

Topic B: Troubleshoot Common Workstation Security Issues

**Day 4**

**Lesson 9: Supporting and Troubleshooting Mobile Devices**

Topic A: Secure Mobile Devices

Topic B: Troubleshoot Mobile Devices Issues

**Lesson 10: Implementing Operational Procedures**

Topic A: User Appropriate Safety Procedures

Topic B: Environmental Impacts and Controls

Topic C: Create and Maintain Documentation

* Lab 12.10.4 – Configure Windows Update (Core 2 – Operating Systems)
* Lab 12.10.8 – Update Firmware (Core 2 – Operating Systems)

Topic D: Implement Disaster Prevention and Recovery Methods

* Lab 2.5.6 – Install a UPS (Core 2 – Operational Procedures)

Topic E: Basic Scripting Concepts

Topic F: Professionalism and Communication

**Day 5**

**Evaluation Time:** After the last lesson of class, students will be given 20 minutes to log into ACI Learning Learning Portal to access and complete the evaluation for their class.

**Assessment: 1 hour timed assessment (Break for 30 or 60 minute lunch)**

**Assessment Review:** If the assessment score is lower than 70%, after the initial assessment review the student will have option to retake another assessment.

GRADING

In order for students to successfully complete the course, they must meet the course participation/attendance and lab completion requirements. Additionally, students seeking an ACE credit recommendation must score a 70 percent or higher on the final exam. Students who are not seeking an ACE credit recommendation are not required to complete the final exam.

Information Security Analyst (ISA)

Program Description

Battles between corporations, governments, and countries are no longer fought using physical force. Cyber war has begun and the consequences can be seen in everyday life.

This program is designed to help individuals get jobs as information security auditors, site administrators, computer forensics investigators.

This program will immerse the student into an interactive environment where they will be shown how to scan, test, hack and secure their own systems; emphasizing perimeter defenses, Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. It also presents a detailed methodological approach to cyber network defense from three approaches: 1) Preventive 2) Reactive 3) Retrospective.

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

Program Outline

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| SY0-601 | Security+ | 20/20/0/40 |
| CND | Network Defender | 20/20/0/40 |
| 312-50 | Certified Ethical Hacker | 20/20/0/40 |

The approximate time required to complete this program is thirty days for day students and thirty nights for evening students.

Class Schedule

Day students will attend weekday classes from 8:00AM to 12:00 pm or 1:00 to 5:00 pm for thirty days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For morning/afternoon/evening students, there will be no meal time allowed but there will be two 10 minute breaks taken.

Tuition and labs

Registration: $0  
Base Tuition: $9,432  
Labs: $1,053  
Total Tuition: $10,485

Targeted Job Roles

* Network Administrator
* Network Engineer
* Information Security Specialist
* Information Security Auditor
* Site Security Administrator

Course Descriptions

#### CompTIA security +

COURSE DESCRIPTION

*CompTIA® Security+® (SY0-601)* is the primary course you will need to take if your job responsibilities include securing network services, devices, and traffic in your organization. You can also take this course to prepare for the CompTIA Security+ certification. In this course, you will build on your knowledge of and professional experience with security fundamentals, networks, and organizational security as you acquire the specific skills required to implement basic security services on any type of computer network.

 This course can benefit you in two ways. If you intend to pass the CompTIA Security+ (SY0-601) certification, this course can be a significant part of your preparation. But certification is not the only key to professional success in the field of computer security. Today's job market demands individuals with demonstrable skills, and the information and activities in this course can help you build your computer security skill set so that you can confidently perform your duties in any security-related role.

COURSE OBJECTIVES

* Identify the fundamental components of information security.
* Analyze risk.
* Identify various threats to information security.
* Conduct security assessments to detect vulnerabilities.
* Implement security for hosts and software.
* Implement security for networks.
* Manage identity and access.
* Implement cryptographic solutions in the organization.
* Implement security at the operational level.
* Address security incidents.
* Ensure the continuity of business operations in the event of an incident.

Targeted Job Roles

* IT Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* CompTIA A+ Certification is helpful but not required
* a fundamental understanding of computer and networking concepts
* six to nine months of helpdesk experience recommended

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| SY0-601 | CompTIA Security + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Security+ SY0-601

Course Developer: CompTIA

Author: James Pengelly

Publish Date: 2020

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1:** **Comparing Security Roles and Security Controls**

* Topic 1A: Compare and Contrast Information Security Roles
* Topic 1B: Compare and Contrast Security Control and Framework Types

**Chapter 2:**  **Explaining Threat Actors and Threat Intelligence**

* Topic 2A: Explain Threat Actor Types and Attack Vectors
* Topic 2B: Explain Threat Intelligence Sources**Understanding attacks**

**Day 2:**

**Chapter 3: Performing Security Assessments**

* Topic 3A: Assess Organizational Security with Network Reconnaissance Tools
* Topic 3B: Explain Security Concerns with General Vulnerability Types
* Topic 3C: Summarize Vulnerability Scanning Techniques
* Topic 3D: Explain Penetration Testing Concepts

**Chapter 4:** **Identifying Social Engineering and Malware**

* Topic 4A: Compare and Contrast Social Engineering Techniques
* Topic 4B: Analyze Indicators of Malware-Based Attacks

**Day 3:**

**Chapter 5:** **Summarizing Basic Cyptographic Ciphers**

* Topic 5A: Compare and Contrast Basic Cyptographic Ciphers o
* Topic 5B: Summarize Cryptographic Modes of Operation
* Topic 5C: Summarize Cryptographic Use Cases and Weaknesses
* Topic 5D: Summarize Other Cryptographic Technologies

**Chapter 6:** **Implementing Public Key Infrastructure**

* Topic 6A: Implement Certificates and Certificate Authorities
* Topic 6B: Implement PKI Management

**Day 4:**

**Chapter 7: Implementing Authentication Controls**

* Topic 7A: Summarize Authentication Design Concepts
* Topic 7B: Implement Knowledge Based Authentication
* Topic 7C: Implement Authentication Technologies
* Topic 7D: Summarize Biometrics Authentication Concepts

**Chapter 8: Implementing a Secure Network Architecture**

* Topic 8A: Implement Identity and Account Types
* Topic 8B: Implement Account Policies
* Topic 8C: Implement Authorization Solutions
* Topic 8D: Explain the importance of Personnel Policies

**Day 5:**

**Chapter 9: Implementing Secure Network Designs**

* Topic 9A: Implement Secure Network Design
* Topic 9B: Implement Secure Switching and Routing
* Topic 9C: Implement Secure Wireless Infrastructure
* Topic 9D: Implements Load Balancers

**Chapter 10: Implementing Network Security Appliances**

* Topic 10A: Implement Firewalls and Proxy Servers
* Topic 10B: Implement Network Security Monitoring
* Topic 10C: Summarize the Use of SIEM

**Day 6:**

**Chapter 11:** **Implementing Secure Network Protocols**

* Topic 11A: Implement Secure Network Operations Protocols
* Topic 11B: Implement Secure Application Protocols
* Topic 11C: Implement Secure Remote Access Protocols

**Chapter 12: Implementing Host Security Solutions**

* Topic 12A: Implement Secure Firmware
* Topic 12B: Implement Endpoint Security
* Topic 12C: Explain Embedded System Security Implications

**Day 7:**

**Lesson 13: Implementing Secure Mobile Solutions**

* Topic 13A: Implementing Mobile Device Management
* Topic 13B: Implement Secure Mobile Device Connections

**Lesson 14: Summarizing Secure Application Concepts**

* Topic 14A: Analyze Indicators of Application Attacks
* Topic 14B: Analyze Indicators of Web Application Attacks
* Topic 14C: Summarize Secure Coding Practices
* Topic 14D: Implement Secure Script Environments
* Topic 14E: Summarize Deployment and Automation Concepts

**Lesson 15: Implementing Secure Cloud Solution**

* Topic 15A: Summarize Secure Cloud and Virtualization Services
* Topic 15B: Apply Cloud Security Solutions
* Topic 15C: Summarize Infrastructure as Code Concepts

**Day 8:**

**Lesson 16: Explaining Data Privacy and Protection Concepts**

* Topic 16A: Explain Privacy and Data Sensitivity Concepts
* Topic 16B: Explain Privacy and Data Protection Controls

**Lesson 17: Performing Incident Response**

* Topic 17A: Summarize Incident Response Procedures
* Topic 17B: Utilize Appropriate Data Sources For Incident Response
* Topic 17C: Apply Mitigation Controls

**Lesson 18: Explaining Digital Forensics**

* Topic 18A: Explain Key Aspects for Digital Forensics Documentation
* Topic 18B: Explain Key Aspects of Digital Forensics Evidence Acquisition

**Day 9:**

**Lesson 19: Summarizing Risk Management Concepts**

* Topic 19A: Explain Risk Management Processes and Concepts
* Topic 19B: Explain Business Impact Analysis Concepts

**Lesson 20: Implementing Cybersecurity Resilience**

* Topic 20A: Implement Redundancy Strategies
* Topic 20B: Implement Backup Strategies
* Topic 20C: Implement Cybersecurity Resilience Strategies

**Lesson 21: Explaining Physical Security**

* Topic 21A: Explain the Importance of Physical Site Security Controls
* Topic 21B: Explain the Importance of Physical Host Security Controls

**Day 10:**

• Overall Course Review

* + PBQs CertMaster Learn - Review
  + CertMaster Practice Exam - Review
  + Labs – Review

• ACE Assessment administered (1-hour timed assessment) last day of class only

* Assessment Review: If the assessment score is lower than 70% after the initial assessment review the student will have the option to retake the assessment

• Evaluation Time: Students will be given 20 minutes to access and complete the evaluation for the class

• To be eligible for exam voucher submit CertMaster Practice Exam to Mentor with 85% and above score (after class completion or graduation)

Grading

Grading will be assigned as follows:

* For students to successfully complete the course, they must meet the course participation/attendance and homework completion requirements. Additionally, students seeking an ACE credit recommendation must score a 70 percent or higher on the final assessment.

Course: Network Defender (CND)

Course Description

CND prepares individuals on network security technologies and operations to achieve defense-in-depth objectives. CND is a comprehensive vendor-neutral network security certification course. This course will immerse you into an interactive environment where you will learn and practice security skills. This class also prepares you for EC-Council Certified Network Defender 312-38.

Course Hours

40 hours total:

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| CND | Certified Network Defender | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

Course Objectives

Upon completion of this course, students will expand their Security knowledge and skill on existing topics covered in Security+ and newly introduced topics:

* Security Threats, Vulnerabilities, Attacks
* Network Security Controls
* Network Policy Design
* Physical Security
* Host, Application, Data Security
* Firewalls
* IDS
* VPN
* Wireless Security
* Network Monitoring and Analysis
* Risk and Vulnerability Management
* Data Backup and Recovery
* Network Incident Response

Prerequisites

Security+ or equivalent knowledge

Basic computer literacy Basic PC Operating System navigation skills Basic Internet usage skills Basic IP addressing knowledge

Requird Textbooks

CND (Cyber Network Defender)

Author: EC-Council

Publish Date: 2016

Instructional Methods

* Lecture
* Overhead slides
* Cloud-based Lab exercises

Maximum Student to Instructor Ratio

20:1

COURSE Outline

**Day 1**

Module 01: Computer Network Defense Fundamentals

Module 02: Network Security Threats, Vulnerabilities, and Attacks

Module 03: Network Security Controls, Protocols, and Perimeter Appliances

Module 04: Secure Firewall Configuration, Deployment and Management

**Day 2**

Module 05: Secure IDS Configuration and Management

Module 06: Secure VPN Configuration and Management

Module 07: Designing a Secure Network

Module 08: Network Traffic Signatures and Analysis

**Day 3**

Module 09: Monitoring and Securing Network Traffic

Module 10: Network Vulnerability Scanning

Module 11: Monitoring and Securing Network Traffic

Module 12: Network Vulnerability Scanning

**Day 4**

Module 13: Host/System Security

Module 14: Physical Security

Module 15: Designing and Implementation of Network Security Policies

**Day 5**

Module 16: Network Incident Response and Management

Module 17: Network Backup and Disaster Recovery

Module 18: Wireless Network Defense

Grading

Grading will be assigned as follows:

* Attendance: 50%
* Lab Assignments: 50%

#### CEH: Certified Ethical Hacker

COURSE DESCRIPTION

This course will immerse you into an interactive environment where you will be shown how to scan, test, hack and secure your own systems. The lab intensive environment gives you in-depth knowledge and practical experience with the current essential security systems. You will begin by understanding how perimeter defenses work and then be led into scanning and attacking your own networks, no real network is harmed. You will then learn how intruders escalate privileges and what steps can be taken to secure a system. You will also learn about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. When you leave this intensive 5 day class, you will have hands on understanding and experience in Ethical Hacking.

PERFORMANCE OBJECTIVES

Students will learn:

* Background of technology and technological operations
* Risk and system analysis
* Systems securities and vulnerabilities
* Regulations and ethics

Targeted Job Roles

* Site Administrators
* Security Auditors
* Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| 312-50 CEH | Certified Ethical Hacker | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

REQUIRED TEXTBOOK

EC-Council Digital Courseware

CEHv9 e-Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1: Introduction to Ethical Hacking**

* Information Security Overview
* Information Security Threats and Attack Vectors
* Hacking Concepts, Types, and Phases
* Ethical Concepts Hacking and Scopes
* Information Security Controls
* Physical Security
* Information Management
* Vulnerability Assessment
* Penetration Testing
* Security Laws and Standards

**Lesson 2: Footprinting and Reconnaissance**

* Footprinting Concepts
* Footprinting Methodology
* Footprinting Using Advanced Google Hacking Techniques
* Footprinting Tools
* Footprinting Countermeasures
* Footprinting Penetration Testing

**Lesson 3: Scanning Networks**

* Overview of Network Scanning
* CEH Scanning Methodology

**Lesson 4: Enumeration**

* Enumeration Concepts
* Enumerations Countermeasures
* Enumeration Penetration Testing

**Lesson 5: System Hacking**

* System Hacking: Goals
* CEH Hacking: Methodology
* CEH System Hacking Steps
* Escalating Privileges
* Executing Applications
* Spyware
* Defending Against Keyloggers
* Hiding Files
* Detecting Rootkits
* NTFS Data Stream
* Steganography/Steganlysis
* Covering Tracks

**Lesson 6: Malware Threats**

* Trojan Concepts
* Types of Trojans
* Virus and Worm Concepts
* Ransomware
* Malware Reverse Engineering
* Malware Detection
* Countermeasures
* Penetration Testing

**Lesson 7: Sniffing**

* Sniffing Concepts
* MAC/DHCP Attacks
* IDRP Spoofing
* ARP/DNS Poisoning
* Sniffing Tools
* Detection Techniques
* Counter Measures

**Lesson 8: Social Engineering**

* Social Engineering Concepts
* Social Engineering Techniques
* Identity Theft
* Social Engineering Countermeasures

**Lesson 9: Denial of Service**

* DoS/DDoS Concepts
* DoS/DDoS Attack Techniques
* Botnets
* DoS/DDos Attack Tools
* Counter Measures
* DoS/DDos Protection Tools

**Lesson 10: Session Hijacking**

* Session Hijacking Concepts
* Application Level Hijacking
* Network Level Hijacking
* Hijacking Tools
* Countermeasures

**Lesson 11: Hacking Web Servers**

* Webserver Concepts
* Webserver Attakcs
* Attack Methodology
* Webserver Attack Tools
* Patch Management
* Webserver Security Tools

**Lesson 12: Hacking Web Applications**

* Web App Concepts
* Web App Threats
* Web App Hacking Methodology
* Attack Web Servers
* Analyze Web Apps
* Authorization Attack Schemes
* Perform Injection Attacks
* Attack Data Connectivity

**Lesson 13: SQL Injection**

* SQL Injection Concepts
* Types of SQL Injection
* SQL Injection Methodology
* SQL Injection Tools
* Evasion Techniques
* Counter Measures
* Snort Rule Detection to SQL Injection Attacks
* Detection Tools

**Lesson 14: Hacking Wireless Networks**

* Wireless Statistics
* Wireless Concepts
* Wireless Encryption
* Breaking Encryption
* Defending Against WPA Cracking
* Wireless Threats
* Wireless Hacking Methodology
* WEP/WPA Cracking Tools
* Counter Measures
* Security Tools

**Lesson 15: Hacking Mobile Platforms**

* Mobile Platform Attack Vectors
* Hacking Android/IOS
* Hacking Windows/BlackBerry
* Mobile Device Management
* Mobile Security Guidelines and Tools

**Lesson 16: Evading IDS, Firewalls and Honeypots**

* IDS, Firewall and Honeypot Concepts
* IDS, Firewall and Honeypot Systems
* IDS/Firewall Evading Tools
* Detecting Honeypots
* Counter Measures

**Lesson 17: Cloud Computing**

* Introduction to Cloud Computing
* Cloud Computing Threats/Attacks
* Cloud Security
* Cloud Penetration Testing

**Lesson 18: Cryptography**

* Cryptography Concepts
* Encryption Algorithms
* Cryptography Tools
* Public Key Infrastructure
* Email Encryption
* Disk Encryption
* Cryptography Attacks
* Cryptanalysis Tools

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

AWS re/Start Cloud Support (AWS)

Program Description

This skills development and training program prepares individuals for entry-level professional positions and careers in the cloud. Through real world, scenario-based learning, hands-on labs, and coursework, learners gain the technical skills they need for junior cloud roles. The program also focuses on building professional skills such as adaptive communication, time management, and collaboration. The program’s mission is to build a diverse pipeline of entry-level cloud talent.

Learning Objectives include:

* Working knowledge of operation systems like Linux, scripting, automation, programming languages and software lifecycles
* Understanding of networking concepts, protocols, security
* Knowledge of security fundamentals such as identity, authentication, authorization, AWS’ shared responsibility model and web access firewalls
* Fundamental understanding of databases concepts
* Application of core AWS services in the area of compute, storage and networking, including EC2, S3, IAM, VPC, Lambda, Cloud Formation, RDS, and Route 53
* Understanding of professional information technology working environment, including communication skills, collaboration tools, project management, presentation skills, project reporting, behavioral attitude

After program completion, each student will be prepared to sit for this highly coveted Amazon Web Services certification exam:

* AWS Certified Cloud Practitioner

Admission Requirements

Individuals applying for this program are required to:

* Be at least 17 years of age
* Interview with a Career Training Consultant
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

Program Outline

|  |  |  |
| --- | --- | --- |
| **Subject Number** | **Subject Title** | **Clock Hours Lecture/Lab/Ext/Total** |
| AWS-FCSO | AWS Fundamentals, Cloud & SysOps | 200/120/0/320 |

The approximate time required to complete this program is eight weeks for day students and sixteen weeks for evening students.

Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for 40 days.. Classes for evening students will be held on Monday through Friday 7:00 to 11:00pm for 80 nights. For day students, an hour lunch break will be taken every day from 11:30AM to 12:30PM with four 10-minute breaks dispersed throughout the day. For evening students, there will be no mealtime allowed but there will be two 10-minute breaks taken throughout the evening.

Tuition and Fees

Registration: $0  
Tuition: $13,875  
Materials: $0  
Total Tuition Fee: $13,875

Cost per Single Subject

|  |  |  |
| --- | --- | --- |
| **Subject Number** | **Subject Title** | **Cost** |
| AWS-FCSO | AWS Fundamentals, Cloud & SysOps | $13,875 |

Certification ExamS Required

* AWS Certified Cloud Practitioner

Targeted Job Roles

* IT Support – AWS Cloud
* IT Cloud Practitioner
* Jr. Network Administrator
* AWS Cloud Administrator
* Cloud DNS Specialist
* Cloud Security Specialist

Subject Descriptions and Syllabi

AWS Fundamentals, Cloud & Sys-OPS

SUBJECT DESCRIPTION

AWS re/Start focuses on two key technical areas IT Fundamentals and AWS Cloud. IT Fundamentals covers topics for support, operations, and automation roles such as Linux, networking, security, programming, Python and databases. AWS Cloud Fundamentals that highlights AWS core services, from introductory level to more in depth hands-on operational procedures. The technical portion of the curriculum is predominantly hands on and includes the end-to-end completion of a project from ideation to reporting, in order to exercise real life processes. In addition to technical skills, AWS re/Start teaches soft skills to prepare learners to succeed in a professional environment by preparing them to think critically, build multi-level projects, team dynamics, project planning, communication, and collaboration.

PERFORMANCE OBJECTIVES

Students will learn:

* Intro to IT
  + Linux Fundamentals
  + Networking Fundamentals
  + Security Fundamentals
  + Intro to Programming
  + Python Programming
  + Databases
* AWS Cloud Fundamentals
  + Cloud Concepts: What is Cloud Computing
  + Cloud Concepts: Cloud Economics
  + Cloud Concepts: AWS Global Infrastructure
  + AWS Core Services: Storage Services
  + AWS Core Services: Amazon Virtual Private Cloud (VPC)
  + AWS Core Services: Database Services
  + AWS Core Services: Load Balancing, CloudWatch, and Auto Scaling
  + AWS Cloud Security
  + Cloud Architecting
  + Cloud Support Services
* Systems Operations on AWS
  + Understanding Systems Operations on AWS
  + Tooling and Automation
  + Computing Servers
  + Computing Scaling and Name Resolution
  + Computing Containers and Serverless
  + Computing Database Services
  + Networking
  + Storage and Archiving
  + Monitoring and Security
  + Managing Resource Consumption
  + Creating Automated and Repeatable Deployments

Class Schedule

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for 40 days.. Classes for evening students will be held on Monday through Friday 7:00 to 11:00pm for 80 nights. For day students, an hour lunch break will be taken every day from 11:30AM to 12:30PM with four 10-minute breaks dispersed throughout the day. For evening students, there will be no mealtime allowed but there will be two 10-minute breaks taken throughout the evening.

subject hours

|  |  |  |
| --- | --- | --- |
| **Subject Number** | **Subject Title** | **Contact Hours** |
| AWS-FCSO | AWS Fundamentals, Cloud & SysOps | 200/120/0/320 |

The approximate time required to complete this program is eight weeks for day students, and approximately sixteen weeks for evening students.

REQUIRED COURSEWARE

* LeaderQuest Learning Management System Student Portal
* Amazon eBook
* Amazon Virtual Labs and Sandbox Lab Environment
* Amazon Practice Exams
* Embedded Assessments and Knowledge Checks

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Discussion
* Virtual labs
* Assessments
* Projects

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

PROGRAM OUTLINE

**Week 1**

**Day 1**

* Opening
* Welcome & Expectations
* Program Introduction
* Class Introductions and Curriculum Overview
* Vendor Introduction
* Self-Assessment
* Development Team and Roles
* Cloud Roles
* Career Goals
* Communication

**Day 2**

* Activity: Think Big
* Team Building/Settling
* Portfolio Project: Purpose and Brainstorming
* Introduction to AWS Training and Certification
* Team Building/Settling
* STAR Methodology
* Introduction to Linux
* Journaling (ACT)
* Open Discussion

**Day 3**

* Linux Recap
* Introduction to Linux Lab 1
* Team Building/Settling
* Linux Login Session
* Portfolio Project: Purpose & Brainstorming
* Discussion: Customer obsession
* Time Management
* Journaling (ACT)
* Open Discussion

**Day 4**

* Linux Login Session Lab 2
* Discussion: Ownership
* Portfolio Project: Purpose & Brainstorming
* Working with Files and Directories
* Lab 3: Working with Files and Directories
* Working with Text
* Journaling (ACT)
* Open Discussion

**Day 5**

* Lab 4: Working with Text
* Linux Users & Groups
* Lab 5: Linux Users & Groups
* Outlook
* Portfolio Project: Submission & Approval
* Managing File Permissions
* Lab 6: Managing File Permissions
* Journaling (ACT)
* Open Discussion

**Week 2**

**Day 1**

* Editing Files
* Lab 7: Editing Files
* Managing Processes
* Lab 8: Managing Processes
* Portfolio Project: Submission & Approval
* Managing Services
* Lab 9: Managing Services
* Discussion: Customer Obsession (cont’d)
* Managing Networking
* Journaling (ACT)
* Open Discussion

**Day 2**

* Lab 10: Managing Networking
* Software Management
* Lab 11: Software Management
* Linux Login Session
* Managing Log Files
* Working with Files
* The Bash Shell
* Lab 14: The Bash Shell

**Day 3**

* Linux Bash Shell Scripts
* Lab 15: Bash Shell Script
* Lab 1: Connect and Configure a Workstation
* Network Standards
* Ethernet Lan
* Lab 2: Wireshark
* Portfolio Project: PR/FAQ
* Journaling (ACT)
* Open Discussion

**Day 4**

* Ethernet Switching
* Lab 3: Examine Current Switch Configuration
* IP Addressing
* Lab 4: IP Addressing configuration
* IPV4 Subnetting
* Lab 5: Create a Subnetting Plan for a Small Network
* TCP and UDP
* Emotional Intelligence
* Management Protocol and Routing
* Lab 6: Examine ARP and DNS

**Day 5**

* Lab 7a: Examine DHCP
* Lab 7b: Examine Router Configuration
* Common Protocol
* Lab 8: Examine a Web Transaction – Wireshark
* Goal Setting
* Alumni Presentation with Students (in person or virtual)
* Portfolio Project: PR/FAQ
* Instructor’s Choice/Reinforced Learning
* Journaling (ACT)
* Open Discussion

**Week 3**

**Day 1**

* Digital Presence
* Discussion: Insist on the Highest Standards
* Network Security
* Lab 10: Research Anti-Malware
* Emerging Technologies
* Lab 11: Research MDM Software
* Presentation from Future Peers at Company
* Lab 0: Connecting to Vocareum Cloud Labs
* Introduction to Security

**Day 2**

* Lab 1: Increase your Security Awareness
* Working with Text
* Prevention: Network Discovery
* Lab 2: Interpret Scanning Results
* Prevention: Systems Hardening
* Lab 3: Harden Servers and Workstation
* Prevention: Security Architecture
* Lab 4: Security Architecture

**Day 3**

* Prevention: Network Hardening
* Lab 5: Explore Hardening Recommendations and Known Vulnerabilities
* Prevention: Data Security
* Lab 6: Protect Data
* Prevention: Public Key Infrastructure (PKI)
* Lab 7: Configure a PKI
* Portfolio Project: PR/FAQ
* Journaling (ACT)
* Open Discussion

**Day 4**

* Prevention: Identity Management
* Lab 8: Manage Passwords
* Detection
* Lab 9: Detect Malware
* Lab 10: Social Engineer
* Lab 11: Pen Testing
* Response
* Lab 12: Incident Response
* Analysis
* Lab 13: Monitor a System
* Lab 14: Review Legal Considerations
* Discussion: Think Big

**Day 5**

* Programming Basics
* Lab 1: Hello World
* Lab 2: Numeric Data Type
* Lab 3: String Data Type
* Lab 4: Lists, Tuple, Dictionary
* Portfolio Project: Requirements Gathering
* Instructor’s Choice
* Portfolio Project: PR/FAQ Submissions
* Journaling (ACT)
* Open Discussion

**Week 4**

**Day 1**

* Programming Basics
* Lab 5: Conditionals
* Lab 6: Loops
* Lab 7: Categorize Values
* Lab 8: Composite Data Types
* Lab 9: Create a Git Repository
* DevOps & Continuous Integration
* Configuration Management
* Lab 10: Explore the Value of Automation

**Day 2**

* Master Class
* Lab 11: Research Terraform
* Lab 12: Compare & Contrast Automation & Orchestration
* Debugging and Testing
* Lab 13: Evaluate a DevOps Tool
* Lab 14: Using the Debugger
* Meet Future Peers (in person or virtual)
* Python Fundamentals
* Lab 1: Prepare to Analyze Insulin with Python

**Day 3**

* Python Basics
* Activity 2-1; 2-2; 2-3
* Activity 2-4; 2-5; 2-6; 2-7; 2-8
* Discussion: Dive Deep
* Lab 2: Working with the String Sequence and Numeric Weight of Insulin
* Lab 14: Review Legal Considerations
* Portfolio Project: Requirements Gathering
* Journaling (ACT)
* Open Discussion

**Day 4**

* Functions
* Lab 3: Calculating the Net Charge of Insulin using Python
* Lab 4: Use Functions to Implement a Cesar Cipher
* Flow Control
* Activities in Flow Control
* Editing Files
* Modules and Libraries
* Activities: Modules and Libraries
* Lab 5: File Handler and Mod for Retrieving Information

**Day 5**

* Debugging and Testing
* Lab 6: Debugging Hello Worlds & Cesar Cypher
* Python and Sys Admin
* Lab 7: System Admin and Python
* Lab 7: System Admin and Python
* How to Apply and Discussion
* Challenge Lab: Bash Script and Review
* Instructor’s Choice
* Journaling (ACT)
* Open Discussion

**Week 5**

**Day 1**

* Database Fundamentals
* L1 – Database Fundamentals
* Lab 0: Installing the Pub 1 DB
* Lab 01: An Intro to DB
* Creating Tables and Learning Different Data Types
* Lab 2: Creating Tables and Learning Different Data Types
* Inserting Data into a Database
* Lab 3: Inserting Data
* Selecting Data from a Database
* Performing a Conditional Search
* Lab 05: Conditional Search

**Day 2**

* Working with Functions
* Lab 6: Working with Functions
* Organizing Data
* Lab 7: Organizing Data
* Retrieving Data
* Lab 8: Retrieving Data
* Indexes
* Lab 9: Indexes
* Updating/Deleting Tables
* Lab 10: Updating/Deleting Tables

**Day 3**

* Backup and Restore
* Lab 11: Backup and Restore
* Catch up on Databases
* Fact Finding: Databases
* Introduction: Cloud Foundations
* Teamwork & Collaboration
* Instructor’s Choice
* Journaling (ACT)
* Open Discussion

**Day 4**

* Introduction: Cloud Foundations
* Intro to Cloud Computing: Cloud Economics
* AWS Core Services – Compute
* Lab 01: Introduction to Amazon EC2
* Discussion: Have Backbone: Disagree and Commit
* Discussion: Invent and Simplify

**Day 5**

* Soft Skills: Networking
* Networking Event
* Instructor’s Choice
* Journaling (ACT)
* Open Discussion

**Week 6**

**Day 1**

* Networking Event
* AWS Core Services – Storage – 2
* Lab 2 Working with Amazon EBS
* AWS Core Services – Storage 3
* AWS Core Services – Storage 4
* P2P: Review Practicing Networking
* P2P: Review Practicing RACI
* AWS Core Services – Amazon VPC 1; Amazon VPC 2
* AWS Core Services – Amazon VPC 3

**Day 2**

* Lab 3: Build a VPC & Web Server
* AWS Core Services – Databases -0-1
* AWS Core Services – Databases -2
* Lab 4: Build your DB Server and Interact with Your DB Using an App
* Discussion: Bias for Action
* AWS Core Services – Load Balancing, Monitoring, Automatic Scaling -1 -2
* Lab 5: Scale & Load Balance Your Architecture
* Balancing, Monitoring, Automatic Master Class
* Group Discussion on Master Class

**Day 3**

* AWS Cloud Security – 1 through 8
* Cloud Architecting – 1 through 4
* Fact Finding: Cloud Foundations 1
* Fact Finding: Cloud Foundations Review
* Fact Finding: Well-Architected Framework
* Networking Event
* Journaling (ACT)
* Open Discussion

**Day 4**

* Networking Event
* AWS Billing Support – 1 through 3
* SysOps – Welcome and Overview
* Understanding SysOps -0 through -3
* Resume creation and Discussion
* Activity 1 – Install and Use the AWS CLI
* Tooling and Automation -1, -2
* Fact Finding – Billing and Review

**Day 5**

* Tooling and Automation -1, - 3
* Lab 1 – Using AWS Systems Manager
* How to Apply and Practice Discussion
* Activity 2 – Create a Website on Amazon S3
* Computing Servers – Computing AWS -1
* Lab 2 – Creating Amazon EC2 Instances
* Journaling (ACT)
* Open Discussion

**Week 7**

**Day 1**

* Challenge Lab: Linux EC2 Instance and Review
* Computing Servers – Computing on AWS -2
* Activity 3 – Troubleshoot Create Instance
* Computing (Scaling and Name Resolution) – 0 through – 3
* Lab 3 – Using AWS Auto Scaling
* Computing (Scaling and Name Resolution) – 4
* Activity 4 – Amazon Route 53 Failover Routing

**Day 2**

* Interview Settings and Practice
* Container – Serverless – 0 through 5
* Activity 5 – Working with AWS Lambda
* Discussion – Earn Trust
* Interview Process and Discussion
* Challenge Lab: Lambda Review
* Computing -db
* Activity 6 – Migrate to Amazon RDS
* Networking – 1 – 3
* Lab 4 – Configure a Amazon VPC

**Day 3**

* Activity 7 – Troubleshoot a Amazon VPC
* Storage and Archiving -1 through 6
* Elevator Pitch
* Activity 8 – Work with Amazon S3
* Challenge Lab: S3 and Review
* Interview Practice
* Open Discussion

**Day 4**

* Monitoring and Security – 1 through 3
* Lab 6 – Monitoring Infrastructure
* Activity 9 – Working with AWS CloudTrail
* Discussion – Deliver Results
* Managing Resource Consumption – 0 through 3
* Lab 7 – Managing Resources
* Activity 10 – Optimize Utilization
* Prep for Practice Test
* Configuration Management – 0 through 6
* Networking Event

**Day 5**

* Lab 8 – Automation with AWS CloudFormation
* Fact Finding – CloudFormation
* Challenge Lab: CloudFormation
* Challenge Lab: Database
* Review Fact Finding and Labs
* Prep for Practice Test
* Troubleshooting AWS CloudFormation
* Continuous Improvement Continuous Integration
* Activity 8: Project Scenario
* Practice Test
* Open Discussion

**Week 8**

**Day 1**

* Prep for Practice Test
* Company Visit

**Day 2**

* Cloud Practitioner Essential Digital, Interview Skills, Resume Review
* Presentation Skills, Presence, Project Presentation
* Review Product FAQ, Review AWS Whitepapers,
* Review Exam Blueprint, Mock Exam and Review

**Day 3**

* Cloud Practitioner Essential Digital, Interview Skills, Resume Review
* Presentation Skills, Presence, Project Presentation
* Review Product FAQ, Review AWS Whitepapers,
* Review Exam Blueprint, Mock Exam and Review
* Open Discussion

**Day 4**

* Cloud Practitioner Essential Digital, Interview Skills, Resume Review
* Presentation Skills, Presence, Project Presentation
* Review Product FAQ, Review AWS Whitepapers,
* Review Exam Blueprint, Mock Exam and Review

**Day 5**

* Exam Day

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%
* Participation: 50%

# Seminars

## CompTIA A+ Certification

#### CompTIA A+ 1001 Essentials

This course will build on the student's existing user-level knowledge and experience with personal computer (PC) hardware to present fundamental skills and concepts that are used on the job. In this course, the student will acquire the essential skills and information needed to install, configure, troubleshoot, upgrade, and perform preventive maintenance on PCs and mobile device hardware.

The CompTIA A+ course can benefit the student in two ways. Whether working in a   
mobile or corporate environment with a high level of face-to-face customer interaction, where client   
communication and client training are important, or in an environment with limited customer   
interaction and an emphasis on hardware activities, this course provides the background knowledge and skills required to be a successful A+ technician.

In this course, the student will install, configure, optimize, troubleshoot, repair, upgrade, and perform preventive maintenance on personal computers, digital devices, and operating systems.

course OBJECTIVES   
**Students will learn:**

* Install and configure PC system unit components and peripheral devices.
* Install, configure, and troubleshoot display and multimedia devices.
* Install, configure, and troubleshoot storage devices.
* Install, configure, and troubleshoot internal system components.
* Explain network infrastructure concepts.
* Configure and troubleshoot network connections.
* Implement client virtualization and cloud computing.
* Support and troubleshoot laptops.
* Support and troubleshoot mobile devices.
* Install, configure, and troubleshoot print devices.

Targeted Job Roles

* Entry-level IT Professional

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

### CLASS SCHEDULE

Day students will attend classes Monday through Friday from 8:00AM to 5:00 PM for 25 days. Classes for evening students will be held on Monday through Friday 6:00pm to 10:00pm. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minutes breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

### CLASS Hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| A+ 1001 | CompTIA A+ Essentials | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

### REQUIRED COURSEWARE

* CompTIA A+ Certification, 220-1001 (ebook from CompTIA)
* ACI Learning Learning Management System Student Portal
* TestOut Test Prep
* Professor Messer Guides
* TestOut Labs and ACI Learning Labs

### INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs (virtual)
* Hand on in-class PC build
* Videos
* Assessments

### Class Outline

**Day 1**

**Introductions/Policy Overview/Course Description**

**Lesson 1: Installing and Configuring PC Components**

Topic A: Use Appropriate Safety Procedures

Topic B: PC Components

Topic C: Common Connection Interfaces

Topic D: Install Peripheral Devices

Topic E: Troubleshooting Methodology

Labs: 1.1.3; 1.1.5; 1.2.7; 2.5.6;

**Lesson 2: Installing, Configuring, and Troubleshooting Display and Multimedia Devices**

Topic A: Install and Configure Display Devices

Topic B: Troubleshoot Display Devices

Topic C: Install and Configure Multimedia Devices

Labs: 3.12.5; 3.13.7;

**Day 2**

**Lesson 3: Installing, Configuring, and Troubleshooting Storage Devices**

Topic A: Install System Memory

Topic B: Install and Configure Mass Storage Devices

Topic C: Install and Configure Removable Storage

Topic D: Configure RAID

Topic E: Troubleshoot Storage Devices

Lab: 3.8.3; 3.8.7; 3.9.4; 3.9.5; 3.11.4;

**Lesson 4: Installing, Configuring, and Troubleshooting Internal System Components**

Topic A: Install and Upgrade CPUs

Topic B: Configure and Update BIOS/UEFI

Topic C: Install Power Supplies

Topic D: Troubleshoot Internal System Components

Topic E: Configure a Custom PC

Labs: Internal Components - 3.2.5; 3.3.5; 3.4.3; 3.4.4; 3.5.7; 3.6.3; 3.6.4;

Labs: Peripheral - 4.1.3; 4.2.3;

**Lesson 5: Network Infrastructure Concepts**

Topic A: Wired Networks

Topic B: Network Hardware Devices

Topic C: Wireless Networks

Topic D: Internet Connection Types

Topic E: Network Configuration Concepts

Topic F: Network Services

Labs: Wired - 6.2.6; 6.6.5; 6.6.6; 6.8.3; 6.8.4; (build a CAT 5 cable and test)

Labs: Wireless - 7.1.7; 7.1.8; 7.1.9; 7.1.10; 7.3.7; 7.4.4; 7.5.3 (practice questions)

**Day 3**

**Lesson 6: Configuring and Troubleshooting Networks**

Topic A: Configure Network Connection Settings

Topic B: Install and Configure SOHO Networks

Topic C: Configure SOHO Network Security

Topic D: Configure Remote Access

Topic E: Troubleshoot Network Connections

Topic F: Install and Configure IoT Devices

Labs: 6.9.3; 6.9.4; 6.9.5; 6.9.6; 6.10.4; 6.10.5

**Lesson 7: Implementing Client Virtualization and Cloud Computing**

Topic A: Configure Client-Side Virtualization

Topic B: Cloud Computing Concepts

Labs: No labs

**Lesson 8: Supporting and Troubleshooting Laptops**

Topic A: Use Laptop Features

Topic B: Install and Configure Laptop Hardware

Topic C: Troubleshoot Common Laptop Issues

Labs: 9.3.5; 9.3.6; 9.4.5 (practice questions)

**Day 4**

**Lesson 9: Supporting and Troubleshooting Mobile Devices**

Topic A: Mobile Device Types

Topic B: Connect and Configure Mobile Device Accessories

Topic C: Configure Mobile Device Network Connectivity

Topic D: Support Mobile Apps

Topic E: Secure Mobile Devices

Topic F: Troubleshoot Mobile Device Issues

Labs: 9.6.7; 9.7.4;

**Lesson 10: Installing, Configuring, and Troubleshooting Print Devices**

Topic A: Maintain Laser Printers

Topic B: Maintain Inkjet Printers

Topic C: Maintain Impact, Thermal, and 3D Printers

Topic D: Install and Configure Printers

Topic E: Troubleshoot Print Device Issues

Topic F: Install and Configure Imaging Devices

Labs: 4.3.3; 4.5.8; 4.6.4; 4.6.5

Non-Virtual Labs:

Operational Procedures - create and deploy an image using Clonezilla; configure Windows backup;

Capstone Testout - 14.1 - Build a computer from scratch (using our build PC kit); install an OS; connect it to the network; connect it to a printer - using all our devices. (Lab manual will be updated, when instructors have had a chance to build one of the kits). We need an additional kit (# 11) to use for spare parts and troubleshooting.

14.4 - Create a home office network; install and configure a wireless router (using one we provide)

14.6 - Troubleshoot a mobile device

Students need a USB drive for Clonezilla; CD to put the OS on; external hard drives to store/deploy the image.

**Day 5**

**Evaluation Time:** After the last lesson of class, students will be given 20 minutes to log into ACI Learning Learning Portal to access and complete the evaluation for their class.

**Assessment: 1 hour timed assessment (Break for 30 or 60 minute lunch)**

**Assessment Review:** If the assessment score is lower than 70%, after the initial assessment review the student will have option to retake another assessment.

#### CompTIA A+ Practical Applications 1002

### COURSE DESCRIPTION

This course is designed for individuals who have basic computer user skills and who are interested in obtaining a job as an entry-level IT technician. This course is also designed for students who are seeking the CompTIA A+ certification and who want to prepare for the CompTIA A+ Core 2 220-1002 Certification.

To ensure your success in this course you should have experience with basic computer user skills, be able to complete tasks in a Microsoft Windows environment, be able to search for, browse and access information on the Internet and have a basic knowledge of computing concepts.

### Course OBJECTIVES

* Supporting Operating Systems
* Installing, Configuring and Maintaining Operating Systems
* Maintaining and Troubleshooting Microsoft Windows
* Configuring and Troubleshooting Networks
* Managing Users, Workstations, and Shared Resource
* Security Concepts
* Securing Workstations and Data
* Troubleshooting Workstations Security Issues
* Supporting and Troubleshooting Mobile Devices
* Implementing Operational Procedures

Targeted Job Roles

* Entry-level IT Professional

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

### course HOURS

|  |  |  |
| --- | --- | --- |
| **Number** | **Title** | **Contact Hours** |
| 220-1002 | CompTIA A+ Practical Applications | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for night students.

### REQUIRED COURSEWARE

* CompTIA A+ Certification, 220-1002 (ebook from CompTIA)
* ACI Learning Learning Management System Student Portal
* TestOut Test Prep
* Professor Messer Guides
* TestOut Labs and ACI Learning Labs

### INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs (virtual) and in-class
* Videos
* Assessments

### COURSE OUTLIne

**Day 1**

**Introductions/Policy Overview/Course Description**

**Lesson 1: Supporting Operation Systems**

Topic A: Identify Common Operation Systems

Topic B: Use Windows Features and Tools

Lab 12.1.13 – Use System Commands (Core 2 – Operating Systems)

Topic C: Manage Files in Windows

* Lab 11.2.5 – Manage Files (Core 2 – Operating Systems)
* Lab 11.2.9 – Manage Files and Folders (Core 2 – Operating Systems)

Topic D: Manage Disks in Windows

* Lab 5.6.3 – Create Volumes (Core 2 – Operating Systems)
* Lab 5.6.5 – Format Drives (Core 2 – Operating Systems)
* Lab 5.7.5 – Add Space to Existing Volumes (Core 2 – Operating Systems)
* Lab 5.8.4 – Implement Storage Spaces (Core 2 – Operating Systems)
* Lab 5.9.6 – Perform Disk Maintenance (Core 2 – Operating Systems)

Topic E: Manage Devices in Windows

* Lab 4.5.8 – Manage Devices (Core 2 – Software Troubleshooting)
* Lab 4.6.4 – Manage Devices 1 (Core 2 – Software Troubleshooting)
* Lab 4.6.5 – Manage Devices 2 (Core 2 – Software Troubleshooting)

**Lesson 2: Installing, configuring and Maintaining Operating Systems**

Topic A: Configure and Use Linux

* Lab 1.4.4 – Use Shell Commands (Core 2 – Operating Systems)
* Lab 1.4.5 – Shut Down a Linux System (Core 2 – Operating Systems)
* Lab 12.8.5 – Manage Linux Processes (Core 2 – Operating Systems)
* Lab 12.8.5 – Manage Linux Processes (Core 2 – Operating Systems)

Topic B: Configure and Use macOS

Topic C: Install and Upgrade Operation Systems

* Lab 10.3.3 – Prepare Disks for Installation (Core 2 – Operating Systems)
* Lab 10.3.5 – Install an Workstation Image using PXE (Core 2 – Operating Systems)

Topic D: Maintain OSs

* Lab 11.5.6 – Manage the Linux File System (Core 2 – Operating Systems)
* Lab 11.5.7 – Manage Linux File Ownership (Core 2 – Operating Systems)
* Lab 12.11.6 – Back Up the Computer (Core 2 – Operating Systems)
* Lab 12.11.7 – Configure File History (Core 2 – Operating Systems)
* Lab 12.12.3 – Create a Restore Point (Core 2 – Operating Systems)
* Lab 13.6.6 – Configure Windows Defender (Core 2 – Security)

**Lesson 3: Maintaining and Troubleshooting Microsoft Windows**

Topic A: Install and Manger Windows Applications

Topic B: Manage Windows Performance

Topic C: Troubleshoot Windows

**Day 2**

**Lesson 4: Configuring and Troubleshooting Networks**

Topic A: Configure Network Connections Settings

Topic B: Install and Configure SOHO Networks

Topic C: Configure SOHO Network Security

Topic D: Configure Remote Access

Topic E: Troubleshoot Network Connections

**Lesson 5: Managing Users, Workstations, and Shared Resource**

Topic A: Manage Users

* Lab 12.4.6 – Create User Accounts (Core 2 – Operating Systems)
* Lab 12.5.6 – Manage Users and Groups (Core 2 – Operating Systems)

Topic B: Configure Shared Resources

* Lab 11.4.6 – Share and Secure Folders (Core 2 – Security)

Topic C: Configure Active Directory Accounts and Policies

* Lab 12.4.3 – Join a Workstation to a Domain (Core 2 – Operating Systems)
* Lab 12.4.7 – Create OUs (Core 2 – Operating Systems)
* Lab 12.4.8 – Delete OUs (Core 2 – Operating Systems)

**Day 3**

**Lesson 6: Security Concepts**

Topic A: Logical Security Concept

Topic B: Threats and Vulnerabilities

Topic C: Physical Security Measures

**Lesson 7: Securing Workstations and Data**

Topic A: Implement Security Best Practices

* Lab 13.3.6 – Require a Screen Saver Password (Core 2 – Security)
* Lab 13.5.4 – Configure BIOS/UEFI Security (Core 2 – Security)

Topic B: Implement Data Projection Policies

* Lab 11.3.4 – Configure NTFS Permissions (Core 2 – Security)
* Lab 13.8.4 – Configure File Encryption (Core 2 – Security)

Topic C: Project Data during Incident Response

**Lesson 8: Troubleshooting Workstations Security Issues**

Topic A: Detect, Remove and Prevent Malware

Topic B: Troubleshoot Common Workstation Security Issues

**Day 4**

**Lesson 9: Supporting and Troubleshooting Mobile Devices**

Topic A: Secure Mobile Devices

Topic B: Troubleshoot Mobile Devices Issues

**Lesson 10: Implementing Operational Procedures**

Topic A: User Appropriate Safety Procedures

Topic B: Environmental Impacts and Controls

Topic C: Create and Maintain Documentation

* Lab 12.10.4 – Configure Windows Update (Core 2 – Operating Systems)
* Lab 12.10.8 – Update Firmware (Core 2 – Operating Systems)

Topic D: Implement Disaster Prevention and Recovery Methods

* Lab 2.5.6 – Install a UPS (Core 2 – Operational Procedures)

Topic E: Basic Scripting Concepts

Topic F: Professionalism and Communication

**Day 5**

**Evaluation Time:** After the last lesson of class, students will be given 20 minutes to log into ACI Learning Learning Portal to access and complete the evaluation for their class.

**Assessment: 1 hour timed assessment (Break for 30 or 60 minute lunch)**

**Assessment Review:** If the assessment score is lower than 70%, after the initial assessment review the student will have option to retake another assessment.

GRADING

In order for students to successfully complete the course, they must meet the course participation/attendance and lab completion requirements. Additionally, students seeking an ACE credit recommendation must score a 70 percent or higher on the final exam. Students who are not seeking an ACE credit recommendation are not required to complete the final exam.

CEH: Certified Ethical Hacker

PROGRAM DESCRIPTION

This course will immerse you into an interactive environment where you will be shown how to scan, test, hack and secure your own systems. The lab intensive environment gives you in-depth knowledge and practical experience with the current essential security systems. You will begin by understanding how perimeter defenses work and then be led into scanning and attacking your own networks, no real network is harmed. You will then learn how intruders escalate privileges and what steps can be taken to secure a system. You will also learn about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation. When you leave this intensive 5 day class, you will have hands on understanding and experience in Ethical Hacking.

PERFORMANCE OBJECTIVES

* Students will learn:
* Background of technology and technological operations
* Risk and system analysis
* Systems securities and vulnerabilities
* Regulations and ethics

Targeted Job Roles

* Site Administrators
* Security Auditors
* Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge

Tuition and labs

Registration: $0  
Base Tuition: $3,303  
Labs: $492  
Total Tuition: $3,795

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| 312-50 CEH | Certified Ethical Hacker | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

EC-Council Digital Courseware

 CEHv9 e-Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

course OUTLINE

**Lesson 1: Introduction to Ethical Hacking**

* Information Security Overview
* Information Security Threats and Attack Vectors
* Hacking Concepts, Types, and Phases
* Ethical Concepts Hacking and Scopes
* Information Security Controls
* Physical Security
* Information Management
* Vulnerability Assessment
* Penetration Testing
* Security Laws and Standards

**Lesson 2: Footprinting and Reconnaissance**

* Footprinting Concepts
* Footprinting Methodology
* Footprinting Using Advanced Google Hacking Techniques
* Footprinting Tools
* Footprinting Countermeasures
* Footprinting Penetration Testing

**Lesson 3: Scanning Networks**

* Overview of Network Scanning
* CEH Scanning Methodology

**Lesson 4: Enumeration**

* Enumeration Concepts
* Enumerations Countermeasures
* Enumeration Penetration Testing

**Lesson 5: System Hacking**

* System Hacking: Goals
* CEH Hacking: Methodology
* CEH System Hacking Steps
* Escalating Privileges
* Executing Applications
* Spyware
* Defending Against Keyloggers
* Hiding Files
* Detecting Rootkits
* NTFS Data Stream
* Steganography/Steganlysis
* Covering Tracks

**Lesson 6: Malware Threats**

* Trojan Concepts
* Types of Trojans
* Virus and Worm Concepts
* Ransomware
* Malware Reverse Engineering
* Malware Detection
* Countermeasures
* Penetration Testing

**Lesson 7: Sniffing**

* Sniffing Concepts
* MAC/DHCP Attacks
* IDRP Spoofing
* ARP/DNS Poisoning
* Sniffing Tools
* Detection Techniques
* Counter Measures

**Lesson 8: Social Engineering**

* Social Engineering Concepts
* Social Engineering Techniques
* Identity Theft
* Social Engineering Countermeasures

**Lesson 9: Denial of Service**

* DoS/DDoS Concepts
* DoS/DDoS Attack Techniques
* Botnets
* DoS/DDos Attack Tools
* Counter Measures
* DoS/DDos Protection Tools

**Lesson 10: Session Hijacking**

* Session Hijacking Concepts
* Application Level Hijacking
* Network Level Hijacking
* Hijacking Tools
* Countermeasures

**Lesson 11: Hacking Web Servers**

* Webserver Concepts
* Webserver Attakcs
* Attack Methodology
* Webserver Attack Tools
* Patch Management
* Webserver Security Tools

**Lesson 12: Hacking Web Applications**

* Web App Concepts
* Web App Threats
* Web App Hacking Methodology
* Attack Web Servers
* Analyze Web Apps
* Authorization Attack Schemes
* Perform Injection Attacks
* Attack Data Connectivity

**Lesson 13: SQL Injection**

* SQL Injection Concepts
* Types of SQL Injection
* SQL Injection Methodology
* SQL Injection Tools
* Evasion Techniques
* Counter Measures
* Snort Rule Detection to SQL Injection Attacks
* Detection Tools

**Lesson 14: Hacking Wireless Networks**

* Wireless Statistics
* Wireless Concepts
* Wireless Encryption
* Breaking Encryption
* Defending Against WPA Cracking
* Wireless Threats
* Wireless Hacking Methodology
* WEP/WPA Cracking Tools
* Counter Measures
* Security Tools

**Lesson 15: Hacking Mobile Platforms**

* Mobile Platform Attack Vectors
* Hacking Android/IOS
* Hacking Windows/BlackBerry
* Mobile Device Management
* Mobile Security Guidelines and Tools

**Lesson 16: Evading IDS, Firewalls and Honeypots**

* IDS, Firewall and Honeypot Concepts
* IDS, Firewall and Honeypot Systems
* IDS/Firewall Evading Tools
* Detecting Honeypots
* Counter Measures

**Lesson 17: Cloud Computing**

* Introduction to Cloud Computing
* Cloud Computing Threats/Attacks
* Cloud Security
* Cloud Penetration Testing

**Lesson 18: Cryptography**

* Cryptography Concepts
* Encryption Algorithms
* Cryptography Tools
* Public Key Infrastructure
* Email Encryption
* Disk Encryption
* Cryptography Attacks
* Cryptanalysis Tools

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

COMPUTER HACKING FORENSIC INVESTIGATOR (CHFI)

course DESCRIPTION

The Computer Hacking Forensic Investigator program presents a detailed methodological approach to computer forensics and evidence analysis. It is a comprehensive course covering major forensic investigation scenarios that enable students to acquire hands-on experience on various forensic investigation techniques and standard tools necessary to successfully carry out a computer forensic investigation.

Battles between corporations, governments, and countries are no longer fought using physical force. Cyber war has begun and the consequences can be seen in everyday life. With the onset of sophisticated cyber-attacks, the need for advanced cyber security and investigation training is a mandate in the present day. If you or your organization requires the knowledge or skills to identify, track, and prosecute the cybercriminals, then this is the course for you. This course helps students to excel in digital evidence acquisition, handling and analysis in a forensically sound manner. Acceptable in a court of law, these skills will lead to successful prosecutions in various types of security incidents such as data breaches, corporate espionage, insider threats and other intricate cases involving computer systems.

CHFI is a certification that gives a complete overview of the process that a forensic investigator must follow when investigating a cybercrime. It includes not only the right treatment of the digital evidence in order to be accepted in the Courts but also useful tools and techniques that can be applied to investigate an incident.

course OBJECTIVES

* The computer forensic investigation process and the various legal issues involved
* Evidence searching, seizing and acquisition methodologies in a legal and forensically sound manner
* Different types of digital evidence, rules of evidence, digital evidence examination process, and electronic crime and digital evidence consideration by crime category
* Roles of first responder, first responder toolkit, securing and evaluating electronic crime scene, conducting preliminary interviews, documenting electronic crime scene, collecting and preserving electronic evidence, packaging and transporting electronic evidence, and reporting the crime scene
* How to set up a computer forensics lab and the tools involved in the lab
* Various file systems and how to boot a disk
* Gathering volatile and nonvolatile information from Windows
* Data acquisition and duplication rules, validation methods and tools required
* How to recover deleted files and deleted partitions in Windows, Mac OS X, and Linux
* The process involved in forensic investigation using AccessData FTK and EnCase
* Steganography and its techniques, Steganalysis, and image file forensics
* Password Cracking Concepts, tools, types of password attacks and how to investigate password protected files
* Different types of log capturing, log management, time synchronization, and log capturing tools
* How to investigate logs, network traffic, wireless attacks, and web attacks
* How to track e-mails and investigate e-mail crimes
* Mobile forensics and mobile forensics software and hardware tools
* How to write investigative reports

Targeted Job Roles

* Junior Computer Forensics Investigator
* Incident Response Technician
* Junior Computer Security Analyst

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge
* Certified Ethical Hacker (CEH) certification, or equivalent knowledge and experience

Tuition and labs

Registration: $0  
Base Tuition: $3,348  
Labs: $447  
Total Tuition : $3,795

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| CHFI | EC-Council Hacking Forensic Investigator | 40 |

The approximate time required to complete this program is five days for day students and 10 evenings for evening students.

REQUIRED TEXTBOOK

Computer Hacking Forensics Investigator Version 8  
EC-Council Official Courseware  
Includes: 3 Books (2 Courseware and 1 Lab Manual) and 4 Tools DVDs

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Lab Exercises

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE Outline

**Day 1**

* Computer Forensics in Today’s World
* Computer Forensics Investigation Process
* Searching and Seizing Computers

**Day 2**

* Digital Evidence
* First Responder Procedures
* Computer Forensics Lab
* Understanding Hard Disks and File Systems

**Day 3**

* Windows Forensics
* Data Acquisition and Investigation
* Recovering Deleted Files and Partitions
* Forensics Investigation Using AccessData FTK
* Forensics Investigation Using EnCase

**Day 4**

* Steganography and Image File Forensics
* Application Password Crackers
* Log Capturing and Event Correlation
* Network Forensics, Investigating Logs and Investigating Network Traffic
* Investigating Wireless Attacks

**Day 5**

* Investigating Web Attacks
* Tracking Emails and investigating Email Crimes
* Mobile Forensics
* Investigative Reports
* Becoming an Expert Witness

Grading

Grading will be assigned as follows:

* Attendance: 50%
* Lab Assignments: 50%

COMPTIA ADVANCED SECURITY PRACTITIONER (CASP)

PROGRAM DESCRIPTION

This 5-day program is designed for people looking to start or enhance their careers as information security experts. You will build knowledge and skills in enterprise security, risk management and incident response, research and analysis, integration of computing, communications and business disciplines, as well as technical integration of enterprise components. Through this program, you will be expected to develop your knowledge of general security concepts, and the specific tools and procedures used to guard against intrusion, hacking, and cybercrimes. The program course material will center around these course matter areas as they relate to the CASP certification objectives.

course OBJECTIVES

In this course, you will analyze and apply advanced security concepts, principles, and implementations that contribute to enterprise-level security. Students will learn:

* Manage risk in the enterprise.
* Integrate computing, communications, and business disciplines in the enterprise.
* Use research and analysis to secure the enterprise.
* Integrate advanced authentication and authorization techniques.
* Implement cryptographic techniques.
* Implement security controls for hosts.
* Implement security controls for storage.
* Analyze network security concepts, components, and architectures, and implement controls.
* Implement security controls for applications.
* Integrate hosts, storage, networks, and applications in a secure enterprise architecture.
* Conduct vulnerability assessments.
* Conduct incident and emergency responses.

Targeted Job Roles

* Network Security Engineer
* Information Security Specialist
* Information Security Auditor
* Security Analyst
* Security Architect
* Site Security Administrator

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge

Tuition and Labs

Registration: $0  
Base Tuition: $3,309  
Labs: $186  
Total Tuition: $3,495

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| CASP | CompTIA Advanced Security Practitioner | 40 |

The approximate time required to complete this program is five days for day students and ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Advanced Security Practitioner (CASP) (CAS-002)

Number 093023SECC (Rev 1.1)

Publisher: Logical Operations, Inc.

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Cloud-based Lab exercises and labs

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

course OUTLINE

**Day 1:**

**Lesson 1: Managing Risk**

* Identify the Importance of Risk Management
* Assess Risk
* Mitigate Risk
* Integrate Documentation into Risk Management

**Lesson 2: Integrating Computing, Communications, and Business Disciplines**

* Facilitate Collaboration Across Business Units
* Secure Communications and Collaboration Solutions
* Implement Security Activities Throughout the Technology Life Cycle

**Day 2:**

**Lesson 3: Using Research and Analysis to Secure the Enterprise**

* Determine Industry Trends and Effects on the Enterprise
* Analyze Scenarios to Secure the Enterprise

**Lesson 4: Integrating Advanced Authentication and Authorization Techniques**

* Implement Authentication and Authorization Technologies
* Implement Advanced Identity Management

**Lesson 5: Implementing Cryptographic Techniques**

* Describe Cryptographic Concepts
* Choose Cryptographic Techniques
* Choose Cryptographic Implementations

**Day 3:**

**Lesson 6: Implementing Security Controls for Hosts**

* Select Host Hardware and Software
* Harden Hosts
* Virtualize Servers and Desktops
* Implement Cloud Augmented Security Services
* Protect Boot Loaders

**Lesson 7: Implementing Security Controls for Enterprise Storage**

* Identify Storage Types and Protocols
* Implement Secure Storage Controls

**Lesson 8: Analyzing and Implementing Network Security**

* Analyze Network Security Components and Devices
* Analyze Network-Enabled Devices
* Analyze Advanced Network Design
* Configure Controls for Network Security

**Day 4:**

**Lesson 9: Implementing Security Controls for Applications**

* Identify General Application Vulnerabilities
* Identify Web Application Vulnerabilities
* Implement Application Security Controls

**Lesson 10: Integrating Hosts, Storage, Networks, and Applications in a Secure Enterprise Architecture**

* Implement Security Standards in the Enterprise
* Select Technical Deployment Models
* Secure the Design of the Enterprise Infrastructure
* Secure Enterprise Application Integration Enablers

**Day 5:**

**Lesson 11: Conducting Vulnerability Assessments**

* Select Vulnerability Assessment Methods
* Select Vulnerability Assessment Tools

**Lesson 12: Responding to and Recovering from Incidents**

* Design Systems to Facilitate Incident Response
* Conduct Incident and Emergency Responses

GRADING

Grading will be assigned as follows:

* Student Attendance: 50%
* Student Participation in Lab Exercises: 50%

EC-COUNCIL CERTIFIED NETWORK DEFENDER (CND)

PROGRAM DESCRIPTION

The Certified Network Defender (CND) cyber security training program was developed as a result of extensive market research and surveys to give students a detailed understanding and the hands-on ability to act in real-life situations involving network defense.

This course instructs entry and junior level network security administrators on Defense-in-Depth network security preparedness. It covers the *protect, detect, and respond* approach to network security. Hands-on labs, based on major network security tools and techniques, give network administrators real world experience on current network security technologies and operations.

The included study kit provides over 10 GB of network security best practices, assessments, and protection tools. The kit also contains templates for various network policies and several white papers for additional learning.

This cyber security training is skills-based and lab intensive. It based on a job-task analysis and the cyber security education framework presented by the National Initiative of Cybersecurity Education (NICE). The course has been mapped to global job roles and responsibilities and the Department of Defense (DoD) job roles for system and network administrators.

The CND cyber security certification will verify that students have the technical depth required to actively design, monitor, and defend a secure network for an organization.

course OBJECTIVES

* Various network security controls, protocols, and devices
* How to determine appropriate location for IDS/IPS sensors, tuning IDS for false positives and false negatives, and configurations to harden security through IDPS technologies
* How to implement secure VPNs for their organization
* How to identify various threats to wireless networks and learn how to mitigate them
* How to monitor and conduct signature analysis to detect various types of attacks and policy violation activities
* How to perform risk assessment, vulnerability assessment/scanning through various scanning tools and generate detailed reports on it
* How to identify the critical data, choose appropriate back up method, media and technique to perform successful backup of organization data on regular basis
* How to provide first response to the network security incident and assist IRT team and forensics investigation team in dealing with an incident
* How to troubleshoot their network for various network problems
* How to identify various threats on organization network
* How to design and implement various security policies for their organizations
* The importance of physical security and able to determine and implement various physical security controls for their organizations
* How to harden security of various hosts individually in the organization’s network
* How to choose appropriate firewall solutions, topology, and configurations to harden security through firewall

Targeted Job Roles

* Entry Level Network Administrators
* Entry Level Network Security Administrators
* Junior Network Security Engineers
* Junior Network Defense Technicians
* Security Analysts
* Security Operators

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge
* Computer security knowledge and skills

Tuition and labs

Registration: $0  
Base Tuition: $3,416  
Labs: $379  
Total Tuition: $3,795

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| CND | Certified Network Defender | 40 |

The approximate time required to complete this program is ten days for day students and ten nights for evening students.

REQUIRED TEXTBOOK

Certified Network Defender Volume 1  
EC-Council Official Courseware  
Includes: 3 Books (Courseware and Lab Manual) & Tools (Downloadable Online and Instruction provided in the Courseware)

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Lab Exercises

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

course Outline

Day 1

* Computer Network Defense Fundamentals
* Network Security Threats, Vulnerabilities, and Attacks
* Network Security Controls, Protocols, and Perimeter Appliances
* Secure Firewall Configuration, Deployment and Management

Day 2

* Secure IDS Configuration and Management
* Secure VPN Configuration and Management
* Designing a Secure Network
* Network Traffic Signatures and Analysis

Day 3

* Monitoring and Securing Network Traffic
* Network Vulnerability Scanning
* Monitoring and Securing Network Traffic
* Network Vulnerability Scanning

Day 4

* Host/System Security
* Physical Security
* Designing and Implementation of Network Security Policies

Day 5

* Network Incident Response and Management
* Network Backup and Disaster Recovery
* Wireless Network Defense

Grading

Grading will be assigned as follows:

-Attendance: 50%

-Lab Assignments: 50%

CISSP: Certified inFormation Systems Security Professional

PROGRAM DESCRIPTION

Welcome to *Certified Information Systems Security Professional (CISSP)®: Fourth Edition*. With your completion of the prerequisites and necessary years of experience, you are firmly grounded in the knowledge requirements of today’s security professional. This course will expand upon your knowledge by addressing the essential elements of the eight domains that comprise a Common Body of Knowledge (CBK)® for information systems security professionals. The course offers a job-related approach to the security process, while providing a framework to prepare for CISSP certification.

CISSP is the premier certification for today’s information systems security professional. It remains the premier certification because the sponsoring organization, the International Information Systems Security Certification Consortium, Inc. (ISC)2 ®, regularly updates the test by using course matter experts (SMEs) to make sure the material and the questions are relevant in today’s security environment. By defining eight security domains that comprise a CBK, industry standards for the information systems security professional have been established. The skills and knowledge you gain in this course will help you master the eight CISSP domains and ensure your credibility and success within the information systems security field.

PERFORMANCE OBJECTIVES

Students will learn:

* Analyze components of the Security and Risk Management domain.
* Analyze components of the Asset Security domain.
* Analyze components of the Security Engineering domain.
* Analyze components of the Communications and Network Security domain.
* Analyze components of the Identity and Access Management domain.
* Analyze components of the Security Assessment and Testing domain.
* Analyze components of the Security Operations domain.
* Analyze components of the Software Development Security domain.

Targeted Job Roles

* Security Auditors or Specialists
* Risk Management Professionals
* Network Admistrators
* Network Engineers

Admission Requirements

* Individuals applying for this program are required to:
* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Network +/Security + Certification or Equivalent Experience
* CyberSecurity Experience Highly Recommended
* Five Years Direct Work Experience Required for Certification

Tuition and labs

Registration: $0  
Base Tuition: $3,423  
Labs: $72  
Total Tuition: $3,495

course Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| CISSP | Certified Information Security Systems Professional | 40 |

The approximate time required to complete this program is five days for day students, and approximately 10 nights for evening students.

REQUIRED TEXTBOOK

Certified Information Systems Security Professional (CISSP): Fourth Edition

 093024SC (Rev 1.0)   
Print and Digital Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

course OUTLINE

**Lesson 1: Security and Risk Management**

* Security Governance Principles
* Compliance
* Professional Ethics
* Security Documentation
* Risk Management
* Threat Modeling
* Business Continuity Plan Fundamentals
* Acquisition Strategy and Practice
* Personnel Security Policies
* Security Awareness and Training

**Lesson 2: Asset Security**

* Asset Classification
* Privacy Protection
* Asset Retention
* Data Security Controls
* Secure Data Handling

**Lesson 3: Security Engineering**

* Security in the Engineering Lifecycle
* System Component Security
* Security Models
* Controls and Countermeasures in Enterprise Security
* Information System Security Capabilities
* Design and Architecture Vulnerability Mitigation
* Vulnerability Mitigation in Embedded, Mobile, and Web-Based Systems
* Cryptography Concepts
* Cryptography Techniques
* Site and Facility Design for Physical Security
* Physical Security Implementation in Sites and Facilities

**Lesson 4: Communications and Network Security**

* Network Protocol Security
* Network Components Security
* Communication Channel Security
* Network Attack Mitigation

**Lesson 5: Identity and Access Management**

* Physical and Logical Access Control
* Identification, Authentication, and Authorization
* Identity as a Service
* Authorization Mechanisms
* Access Control Attack Mitigation

**Lesson 6: Security Assessment and Testing**

* System Security Control Testing
* Software Security Control Testing
* Security Process Data Collection
* Audits

**Lesson 7: Security Operations**

* Security Operations Concepts
* Physical Security
* Personnel Security
* Logging and Monitoring
* Preventative Measures
* Resource Provisioning and Protection
* Patch and Vulnerability Management
* Change Management
* Incident Response
* Investigations
* Disaster Recovery Planning
* Disaster Recovery Strategies
* Disaster Recovery Implementation

**Lesson 8: Software Development Security**

* Security Principles in the System Lifecycle
* Security Principles in the Software Development Lifecycle
* Database Security in Software Development
* Security Controls in the Development Environment
* Software Security Effectiveness Assessment

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

## EC-COUNCIL CERTIFIED ENCRYPTION SPECIALIST (ECES)

### course DESCRIPTION

 If you think that there is only one type of encryption – think again!  Secure organizations employ multiple levels of encryption – database encryption, VoIP encryption, portable storage encryption, mobile devices encryption, Wi-Fi encryption, e-mail encryption, file encryption – server/desktop, network link encryption, web server encryption, tape backup encryption and many more.

Some of the most recent attacks that have had serious consequences share one thing in common – they all had either little or no effective encryption. This resulted in thousands of users being affected and hundreds of millions in losses. It resulted in serious decline of brand value and public embarrassment.  And these were not technically naïve companies by any means.  To name a few – SONY PS3, RSA, iPhone, LinkedIn.

The ECES course introduces students to modern symmetric key cryptography including the details of algorithms such as Feistel Networks, DES, and AES as well as an overview of many other algorithms such as Blowfish, Twofish, Skipjack, and others.  Other topic areas include the basics of information theory as it applies to cryptography; an introduction to hashing algorithms including MD5, MD6, SHA, Gost, RIPMD 256 and others; asymmetric cryptography including thorough descriptions of RSA, Elgamal, Elliptic Curve, and DSA; significant concepts such as diffusion, confusion, and Kerkcho’s principle.

### course OBJECTIVES

Students will learn:

* The basics of information theory as it applies to cryptography.
* An introduction to hashing algorithms including MD5, MD6, SHA, Gost, RIPMD 256 and others.
* Asymmetric cryptography including thorough descriptions of RSA, Elgamal, Elliptic Curve, and DSA.
* Significant concepts such as diffusion, confusion, and Kerkcho’s principle.
* Types of encryption standards and their differences.
* How to select the best standard for your organization.
* How to enhance your pen-testing knowledge in encryption.
* Correct and incorrect deployment of encryption technologies.
* Common mistakes made in implementing encryption technologies.
* Best practices when implementing encryption technologies.

### Targeted Job Roles

* Entry Level Penetration Testers
* Junior Computer Forensic Specialists
* Anyone involved in basic information security operations

### Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

### PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Basic IP addressing knowledge
* No prior knowledge of cryptography is assumed, and no mathematical skills beyond basic algebra are required.

### TUITION and Labs

 Registration: $0   
Base Tuition: $2,365  
Labs: $180   
Total Tuition: $2,545

### CLASS Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for three days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

### COURSE hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| ECES | EC-Council Certified Encryption Specialist | 24 |

 The approximate time required to complete this course is three days for day students and six nights for evening students.

### REQUIRED TEXTBOOK

Certified Encryption Specialist Vol. 1   
EC-Council Official Courseware

### INSTRUCTIONAL METHODS

* Lecture
* Overhead slides

### MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

### COURSE OUTLINE

**Day 1:**

* Introduction and History of Cryptography
* Symmetric Cryptography & Hashes

**Day 2:**

* Number Theory and Asymmetric Cryptography
* Applications of Cryptography

**Day 3:**

* Cryptanalysis

### GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

ITIL foundations

PROGRAM DESCRIPTION

This course will prepare you for the ITIL Foundation certification, introducing you to basic concepts used in IT service management. In this course, you will acquire the essential skills and information necessary to lead and manage an IT business service through every stage of its lifecycle.

Implementing and supporting IT services in the workplace can often be a daunting task since all organizations differ in key ways. Whether it's upgrading from one service to another, improving an existing service, or designing a service from scratch, business-focused leadership and management are crucial elements of services that your customers will perceive as valuable. The course will prepare you for the ITIL Foundation cert, introducing you to basic concepts used in IT service management.

COURSE OBJECTIVES

* Describe the history and basic concepts of ITIL.
* Describe Service Strategy in the IT Service Lifecycle.
* Describe Service Design in the IT Service Lifecycle.
* Describe Service Transition in the IT Service Lifecycle.
* Describe Service Operation in the IT Service Lifecycle.
* Describe the various functions of Service Operation Lifecycle in the IT Service Lifecycle.
* Describe Continual Service Improvement in the IT Service Lifecycle.

Targeted Job Roles

* IT Professionals with an interest in Service Management

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

Tuition and Labs

Registration: $0  
Base Tuition: $2,243  
Labs: $52  
Total Tuition: $2,295

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| ITL-FND | ITIL Foundations | 40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

IT Infrastructure Library (ITIL) Foundation Certification (2011 Lifecycle Edition)

 093030SC (Rev 2.0)   
Print and Digital Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1: Introduction to ITIL**

* ITIL Basics
* The Service Lifecycle

**Lesson 2: Service Strategy**

* Basic Concepts of Service Strategy
* The Financial Management Process
* The Service Portfolio Management Process
* The Demand Management Process
* The Business Relationship Management Process

**Lesson 3: Service Design**

* Basic Concepts of Service Design
* The Design Coordination Process
* The Service Level Management Process
* The Service Catalog Management Process
* The Availability Management Process
* The Capacity Management Process
* The Information Security Management Process
* IT Service Continuity Management
* The Supplier Management Process

**Lesson 4: Service Transition**

* Basic Concepts of Service Transition
* The Transition Planning and Support Process
* The Change Management Process
* The Service Asset and Configuration Management Process
* The Release and Deployment Management Process
* The Knowledge Management Process

**Lesson 5: Service Operation**

* Basic Concepts of Service Operation
* The Event Management Process
* The Incident Management Process
* The Problem Management Process
* The Request Fulfillment Process
* The Access Management Process

**Lesson 6: Service Operation Functions**

* The Service Desk Function
* The Technical Management Function
* The IT Operations Management Function
* The Application Management Function

**Lesson 7: Continual Service Improvement**

* Basic Concepts of Continual Service Improvement
* CSI Principles

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

CAPM/PMP- Project Management Professional

PROGRAM DESCRIPTION

You can find PMPs leading projects in nearly every country and, unlike other certifications that focus on a particular geography or domain, the PMP® is truly global. As a PMP, you can work in virtually any industry, with any methodology and in any location. The PMP signifies that you speak and understand the global language of project management and connects you to a community of professionals, organizations and experts worldwide.

This course provides an intensive review of the course matter tested on the Project Management Institute’s Project Management Professional (PMP) certification. This course will provide a summary review of the nine knowledge areas and five process groups covered in A Guide to the Project Management Body of Knowledge (PMBOK® Guide). Participants will improve their test-taking skills by completing sample certifications totaling 200 questions and by discussing the rationale behind both correct and incorrect answers. The program is specifically designed to maximize the probability that you will succeed in passing the PMP the first time. Each student will receive a student manual including review materials, key definitions and formulas, sample questions and answers.

COURSE OBJECTIVES

Students will learn:

* Initiating Domains.
* Planning Domains.
* Executing Domains.
* Monitoring Domains.
* Closing Domains.

Targeted Job Roles

* Project Managers

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills

Tuition and labs

Registration: $0  
Base Tuition: $3,156  
Labs: $139  
Total Tuition: $3,295

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| PMP-EP | Project Management Professional | 40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

Project Management Institute

PMBOK 6th Edition

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1:**

Module 1: Project Management Fundamentals

* Key Project Management Definitions
* Role of the Project Manager
* Knowledge Areas and Process Groups
* Project Lifecycle Models
* Project Processes
* Organizational Influences on Project Management
* Project Maturity Models

Module 2: Project Initiation

* Project Selection Process
* Project Charter Elements
* Exercise 1: Prepare Project Charter and Milestone Schedule
* Stakeholder Identification
* Exercise 2: Identify Stakeholders

Module 3: Planning the Project

* Project Requirements
* Class Exercise: Define Case Study Requirements
* Scope Definition & Management
* Work Breakdown Structure
* Exercise 3: Prepare WBS
* Schedule Development
* Define Activities
* Sequence Activities
* Estimate Durations
* Develop Schedule
* Exercise 4: Prepare Project Schedule using Critical Path Method

**Lesson 2:**

Module 3: Planning the Project (continued)

* Cost Estimating and Budgeting
* Project Risk Management
* Risk Identification
* Risk Analysis
* Risk Response Planning
* Exercise 5: Prepare Risk Management Plan
* Project Communications
* Managing Expectations
* Stakeholder Communications
* Assigning Responsibilities using a RACI Chart
* Exercise 6: Prepare RACI Chart & Communications Plan

Module 4: Executing, Monitoring and Controlling the Project

* Integrated Change Control
* Exercise 7: Decide on Change Order Resolution
* Risk Monitoring and Control
* Exercise 8: Manage Risk Event

Module 5: Project Close-out

* Project Closing and Acceptance
* Project Archives and Lessons Learned

Course Wrap-up

* Review of Key Learning's & How to Apply to Projects

**Lesson 3:**

Module 6: Introduction and PMP® Program Overview

* Applying for and Taking the Certification
* Strategies: General and Question-by-Question

Module 7: Project Management Framework

* Project Life Cycles and Stakeholder Management
* The Triple Constraint and Organizational Issues

Module 8: Project Scope Management

* Initiating the Project: Project Plans
* Work Breakdown Structures

**Lesson 4:**

Module 9: Project Time Management

* Project Schedules and Logic Diagramming
* Critical Path Analysis and Performance Measurement

Module 10: Project Human Resource Management

* Project Manager Responsibilities
* Power & Conflict Management

Module 11: Project Quality Management

* Project Management and Quality management
* Statistical Process Control

Module 12: Project Cost Management

* Estimating versus Pricing
* Financial Analysis

**Lesson 5:**

Module 13: Project Procurement Management

* Procurement Planning
* Business Issues, Selection, and Evaluation

Module 14: Project Risk Management

* Expected Values
* Decision Trees and Cause and Effect

Module 15: Project Communication Management

* Tools and Techniques
* Reporting and Lessons Learned

Module 16: Professional Responsibility

* Professional Responsibility
* Ethics

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

CompTIA security +

PROGRAM DESCRIPTION

*CompTIA® Security+® (SY0-601)* is the primary course you will need to take if your job responsibilities include securing network services, devices, and traffic in your organization. You can also take this course to prepare for the CompTIA Security+ certification. In this course, you will build on your knowledge of and professional experience with security fundamentals, networks, and organizational security as you acquire the specific skills required to implement basic security services on any type of computer network.

 This course can benefit you in two ways. If you intend to pass the CompTIA Security+ (SY0-601) certification, this course can be a significant part of your preparation. But certification is not the only key to professional success in the field of computer security. Today's job market demands individuals with demonstrable skills, and the information and activities in this course can help you build your computer security skill set so that you can confidently perform your duties in any security-related role.

COurse OBJECTIVES

Students will learn:

* Identify the fundamental components of information security.
* Analyze risk.
* Identify various threats to information security.
* Conduct security assessments to detect vulnerabilities.
* Implement security for hosts and software.
* Implement security for networks.
* Manage identity and access.
* Implement cryptographic solutions in the organization.
* Implement security at the operational level.
* Address security incidents.
* Ensure the continuity of business operations in the event of an incident.

Targeted Job Roles

* IT Security Professionals

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* CompTIA A+ Certification is helpful but not required
* a fundamental understanding of computer and networking concepts
* six to nine months of helpdesk experience recommended

Tuition and Labs

Registration: $0  
Base Tuition: $2,713  
Labs: $182  
Total Tuition: $2,895

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, a half hour lunch break will be taken every day from 12:00PM to 12:30PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

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| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| SY0-601 | CompTIA Security + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Security+ SY0-601

Course Developer: CompTIA

Author: James Pengelly

Publish Date: 2020

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

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| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1: Security Fundamentals**

* Module A: Security concepts
* Module B: Risk management
* Module C: Vulnerability assessment

**Chapter 2: Understanding attacks**

* Module A: Understanding attackers
* Module B: Social engineering
* Module C: Malware
* Module D: Network attacks
* Module E: Application attacks

**Day 2:**

**Chapter 3: Cryptography**

* Module A: Cryptography concepts
* Module B: Public key infrastructure

**Chapter 4: Network fundamentals**

* Module A: Network components
* Module B: Network addressing
* Module C: Network ports and applications

**Chapter 5: Securing networks**

* Module A: Network security components
* Module B: Transport encryption
* Module C: Hardening networks
* Module D: Monitoring and detection

**Day 3:**

**Chapter 6: Securing hosts and data**

* Module A: Securing hosts
* Module B: Securing data
* Module C: Mobile device security

**Chapter 7: Securing network services**

* Module A: Securing applications
* Module B: Virtual and cloud systems

**Day 4:**

**Chapter 8: Authentication**

* Module A: Authentication factors
* Module B: Authentication protocols

**Chapter 9: Access control**

* Module A: Access control principles
* Module B: Account management

**Day 5:**

**Chapter 10: Organizational security**

* Module A: Security policies
* Module B: User training
* Module C: Physical security and safety

**Chapter 11: Disaster planning and recovery**

* Module A: Business continuity
* Module B: Fault tolerance and recovery
* Module C: Incident response

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

CompTIA Network +

PROGRAM DESCRIPTION

The *CompTIA® Network+®* course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present the fundamental skills and concepts that you will need to use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ certification.

 Also, if your job duties include network troubleshooting, installation, or maintenance, or if you are preparing for any type of network-related career, it provides the background knowledge and skills you will require to be successful.

COURSE OBJECTIVES

Students will learn:

* Identify basic network theory concepts and major network communications methods.
* Describe bounded network media.
* Identify unbounded network media.
* Identify the major types of network implementations.
* Identify TCP/IP addressing and data delivery methods.
* Implement routing technologies.
* Identify the major services deployed on TCP/IP networks.
* Identify the infrastructure of a WAN implementation.
* Identify the components used in cloud computing and virtualization.
* Describe basic concepts related to network security.
* Prevent security breaches.
* Respond to security incidents.
* Identify the components of a remote network implementation.
* Identify the tools, methods, and techniques used in managing a network.
* Describe troubleshooting of issues on a network.

Targeted Job Roles

* Entry-level IT Professional

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score of 17 on the Wonderlic Scholastic Level Exam.

PREREQUISITES

* Basic computer literacy
* Basic PC Operating System navigation skills
* Basic Internet usage skills
* Professional Helpdesk or Computer Support Experience
* CompTIA A+ Certification is helpful but not required

Tuition and Labs

Registration: $0  
Base Tuition: $2,713  
Labs: $182  
Total Tuition: $2,895

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 7:00 PM to 11:00PM. For day students, an hour lunch break will be taken every day from 11:30AM to 12:30PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

COURSE hours

|  |  |  |
| --- | --- | --- |
| **Subject Number** | **Subject Title** | **Contact Hours** |
| N10-007 | CompTIA Network + | 40 |

The approximate time required to complete this program is ten days for day students, and approximately 10 nights for evening students.

REQUIRED TEXTBOOK

CompTIA Network + N10-007

Course Developer: 30 Bird Media

Author: Clifford J. Coryea, Donald P. Tremblay, Adam A. Wilcox

Publish Date: 2017

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Day 1:**

**Chapter 1: Fundamentals**

* Module A: Networking concepts
* Module B: Classifying networks
* Module C: Network models
* Module D: The troubleshooting process

**Chapter 2: Physical networks**

* Module A: Connection technologies
* Module B: Network devices
* Module C: Copper media
* Module D: Optical media
* Module E: Ethernet standards

**Day 2:**

**Chapter 3: TCP/IP networks**

* Module A: IP addressing
* Module B: Core protocols
* Module C: Network ports and applications

**Chapter 4: Internetworking**

* Module A: Switching
* Module B: Routing

**Chapter 5: Wireless LANs**

* Module A: Wireless networks
* Module B: Wireless LAN standards

**Day 3:**

**Chapter 6: Wide area networks**

* Module A: Internet connections
* Module B: WAN infrastructure

**Chapter 7: Cybersecurity principles**

* Module A: Goals and threats
* Module B: Digital security
* Module C: Transport encryption

**Day 4:**

**Chapter 8: Defending networks**

* Module A: Network security components
* Module B: Network authentication systems
* Module C: Hardening networks

**Chapter 9: Evolving network technologies**

* Module A: Network convergence
* Module B: Virtual and cloud systems

**Day 5:**

**Chapter 10: Network operations**

* Module A: Monitoring and optimization
* Module B: Fault tolerance and disaster recovery
* Module C: Incident response

**Chapter 11: Network planning**

* Module A: Network policy design
* Module B: Network installation
* Module C: Maintenance and upgrades

GRADING

Grading will be assigned as follows:

* Attendance: 50%
* Participation: 50%

Comptia Server +

PROGRAM DESCRIPTION

The *CompTIA® Server+®* course builds on your existing professional experience with personal computer hardware support to present the next tier of skills and concepts that you will use on the job when administering any type of network server. If your job duties include server troubleshooting, installation, or maintenance, or if you are preparing for any type of network server-related career, it provides the primary knowledge and skills you will require to be successful. The *CompTIA® Server+®* course can also benefit you if you are preparing to take the CompTIA Server+ certification.

COURSE OBJECTIVES

Students will learn:

* Manage server hardware.
* Install server hardware and operating systems.
* Configure networking hardware and protocols.
* Perform basic server configuration tasks.
* Create a virtual server environment.
* Administer servers.
* Implement server storage solutions.
* Secure the server.
* Plan and test disaster recovery.
* Troubleshoot server issues.

Targeted Job Roles

* IT professionals such as PC, desktop, and help desk technicians who have experience supporting PC hardware who wish to make the transition to become server hardware and support specialists.

Admission Requirements

Individuals applying for this program are required to:

* Interview with a Career Training Consultant
* Be at least 18 years of age
* Present proof of secondary education (high school diploma or GED certificate)
* In the event the applicant is unable to provide proof of secondary education, achieve a passing score on the Wonderlic Basic Skills Test.

PREREQUISITES

* 18 to 24 months of hands-on experience with installation, configuration, diagnosis, and troubleshooting of PC hardware and network operating system issues
* CompTIA A+
* CompTIA Network +

Tuition and Labs

Registration: $0  
Base Tuition: $2,513  
Labs: $182  
Total Tuition: $2,695

Class Schedule

Day students will attend weekday classes from 8:00AM to 5:00PM for five days. Classes for evening students will be held Monday through Friday from 6:00 PM to 10:00 PM. For day students, an hour lunch break will be taken every day from 12:00PM to 1:00PM with four 10 minute breaks dispersed throughout the day. For evening students, there will be no meal time allowed but there will be two 10 minute breaks taken throughout the evening.

course hours

|  |  |  |
| --- | --- | --- |
| **Course Number** | **Course Title** | **Contact Hours** |
| SK0-004 | CompTIA Server + | 40 |

The approximate time required to complete this program is five days for day students, and approximately ten nights for evening students.

REQUIRED TEXTBOOK

CompTIA Server +

093007S (Rev 1.1)   
Print and Digital Courseware

INSTRUCTIONAL METHODS

* Lecture
* Overhead slides
* Labs

|  |  |
| --- | --- |
| Lab Time | 20 hours |
| Lecture Time | 20 hours |

MAXIMUM STUDENT TO INSTRUCTOR RATIO

20:1

COURSE OUTLINE

**Lesson 1: Managing Server Hardware**

* Server Components
* Server Power
* Server Cooling
* Asset Management

**Lesson 2: Installing a Server**

* Prepare an Installation Plan
* Prepare the Server Hardware
* Set Up the Server Hardware
* Install an Operating System

**Lesson 3: Configuring Networking**

* Manage Network Cabling
* Configure Network Interface Cards
* Implement IP Addressing and Network Infrastructure Services

**Lesson 4: Creating a Virtual Environment**

* Create Virtual Servers
* Create Virtual Switches

**Lesson 5: Performing Basic Server Configuration**

* Configure Local Server Properties
* Configure Server Roles
* Set Up IP Addressing Service Roles

**Lesson 6: Administering the Server**

* Update the Server
* Server Administration Access and Control Methods
* Create Service Level Agreements
* Monitor Server Performance

**Lesson 7: Implementing Storage Solutions**

* Perform Capacity Planning
* Deploy Primary Storage Devices
* Storage Technologies
* Configure RAID

**Lesson 8: Securing the Server**

* Configure Firewalls
* Configure Security Protocols
* Implement Intrusion Detection Systems
* Implement Logical Access Control Methods
* Implement Data Security Methods
* Apply Server Hardening Techniques
* Implement Physical Security
* Create Virtual Networks

**Lesson 9: Planning and Testing Disaster Recovery**

* Implement Environmental Controls
* Manage Documentation for the Server and the Network
* Create A Disaster Recovery Plan
* Perform Backup and Restoration

**Lesson 10: Troubleshooting Server Issues**

* Troubleshoot Theory and Methods
* Troubleshoot Hardware Issues
* Troubleshoot Software Issues
* Troubleshoot Networking Issues
* Troubleshoot Storage Issues
* Troubleshoot Security Issues

GRADING

Grading will be assigned as follows:

* Attendance: 50%