



Citywide Administrative Services

BILL DE BLASIO  
Mayor

DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES  
BUREAU OF EXAMINATIONS

LISETTE CAMILO  
Commissioner

## NOTICE OF EXAMINATION

### COMPUTER SYSTEMS MANAGER (CUNY)

Exam No. 9012

(For The City University of New York Only)

**WHEN TO APPLY:** From: October 3, 2018

**APPLICATION FEE:** \$82.00

To: October 23, 2018

If you choose to pay the application fee with a credit/debit/gift card, you will be charged a fee of 2.49% of the payment amount. This fee is nonrefundable.

**YOU ARE RESPONSIBLE FOR READING THIS ENTIRE NOTICE BEFORE YOU SUBMIT YOUR APPLICATION.**

#### WHAT THE JOB INVOLVES:

Computer Systems Managers (CUNY), under varying levels of administrative or executive direction, with varying degrees of latitude for independent initiative, judgment and decision making, perform difficult and responsible professional managerial work in the planning, organizing and controlling of the overall activities of an Information Technology (IT) area in a College or in a University. Computer Systems Managers (CUNY) manage and direct all aspects of an IT area in a College or in a University; supervise and oversee a full range of IT resources; utilize their general knowledge in areas such as, but not limited to, programming languages, operating systems, data base management systems, data communications systems, software development and analysis; instruct, direct and monitor the work of IT professionals and technical support personnel; and/or coordinate or direct a complex IT task force. All Computer Systems Managers (CUNY) perform related work.

#### Special Working Conditions:

Computer Systems Managers (CUNY) may be required to work various shifts including nights, Saturdays, Sundays, and holidays.

(This is a brief description of what you might do in this position and does not include all the duties of this position.)

#### THE SALARY:

Salaries will be commensurate with the level of responsibility of the managerial assignment and will be consistent with the Classified Managerial Pay Plan.

#### HOW TO QUALIFY:

You are responsible for determining whether or not you meet the education and experience requirements for this examination prior to submitting your application. If you are found "Not Qualified," your application fee will not be refunded and you may not receive a score.

You will **not** receive credit for education which you obtain after January 31, 2019 or experience which you obtain after the end of the Application Period (October 23, 2018).

#### EDUCATION AND EXPERIENCE REQUIREMENTS:

Six (6) years of progressively responsible full-time paid information systems technology experience, at least eighteen (18) months of which shall have been in an administrative or managerial capacity in the areas of computer applications programming, systems programming, information systems development, data telecommunications, data base administration or a closely related area.

Education at an accredited college or university may be substituted for the general information systems technology experience at the rate of one (1) year of college for six (6) months of experience up to a maximum of four (4) years of college for two (2) years of experience. In addition, a master's degree in computer science or a closely related field from an accredited college or university may be substituted for an additional year of the general information systems technology experience. **However**, all candidates **must** possess the eighteen (18) months of administrative or managerial experience described above.

Experience in an **administrative capacity** must include, but is not limited to, responsibilities such as: monitoring an IT budget; reviewing and approving IT procurement and invoice payments; reviewing and approving contracts with vendors; monitoring and approving IT projects; setting standards and best practices; risk evaluation (e.g., security, reputational, operational); organizational development; chairing or participating in IT Governance and Advisory committees; and/or overseeing vendor relationship management.

Experience in a **managerial capacity** must include, but is not limited to, responsibilities such as: strategic planning for an office/division; creating and implementing policies; setting standards and best practices;

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defining and documenting project scope; root cause analysis with recommendations; collaborating with other managers and executives to define future state of IT program; and/or forecasting.

The following types of experience are **not** acceptable: superficial use of preprogrammed software without complex programming, design, implementation or management of the product; use of a word processing package; use of a hand held calculator; data entry; operation of data processing hardware or consoles.

**The education requirement must be met by January 31, 2019. The experience requirement must be met by the last day of the Application Period (October 23, 2018).**

The high school diploma or its educational equivalent must be approved by a State's Department of Education or a recognized accrediting organization. The college or university must be accredited by regional, national, professional, or specialized agencies recognized as accrediting bodies by the U.S. Secretary of Education and by the Council for Higher Education Accreditation (CHEA).

If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. This is required **only** if you need credit for your foreign education in this examination. For more information see the Foreign Education Evaluation Guide in the Required Information section.

**You must clearly specify in detail all of your relevant education and experience on your Education and Experience Test and submit it by the end of the Application Period.** You will not receive credit for education which you obtain after January 31, 2019 or experience which you obtain after the end of the Application Period (October 23, 2018).

**Residency:**

City residency is not required for this position.

**English Requirement:**

You must be able to understand and be understood in English.

**Proof of Identity:**

Under the Immigration Reform and Control Act of 1986, you must be able to prove your identity and your right to obtain employment in the United States prior to employment with the City University of New York .

**HOW TO APPLY:**

If you believe you meet the requirements in the "How to Qualify" section, submit an application on the Online Application System (OASys) at [www.nyc.gov/examsforjobs](http://www.nyc.gov/examsforjobs). Follow the onscreen application instructions for electronically submitting your application and payment, and completing any required information. A unique and valid email address is required to file online. Several internet service providers, including but not limited to Google, Yahoo!, AOL, Outlook.com, and Mail.com offer free email addresses. **All new OASys accounts require verification before a candidate can submit an application to ensure the accuracy of candidate information. Verification is instantaneous for most accounts, but some accounts may require up to two (2) business days to be reviewed by a staff member and resolved. Email notification will be sent to those creating accounts that require additional documentation before they can be resolved. Please keep this information and the application period deadline in mind when creating your account.** The following methods of payment are acceptable: major credit card, bank card associated with a bank account, or a prepaid debit card with a credit card logo which you may purchase online or at various retail outlets.

If you are receiving or participating in certain forms of public assistance/benefits/programs, or are a veteran, you may qualify to have the application fee waived. For more information on eligibility for a fee waiver and documentation requirements, visit the Fee Waiver FAQ on the Online Application System at <https://a856-eeexams.nyc.gov/OLEE/oasys/FAQFeeWaiver.aspx>.

You may come to the DCAS Computer-based Testing & Applications Centers to file for this examination online and submit a money order payable to DCAS (Exams) or to submit documentation for a fee waiver. The centers will be open Monday through Saturday from 9:00 AM to 5:00 PM:

<b>Manhattan</b>	<b>Brooklyn</b>	<b>Queens</b>	<b>Staten Island</b>
2 Lafayette Street 17th Floor New York, NY 10007	210 Joralemon Street 4th Floor Brooklyn, NY 11201	118-35 Queens Boulevard 5th Floor Forest Hills, NY 11375	135 Canal Street 3rd Floor Staten Island, NY 10304

**The DCAS Computer-based Testing & Applications Centers will be closed on Saturday, October 6, 2018 and on Monday, October 8, 2018.**

**Special Circumstances Guide:** This guide is located on the DCAS website at [www.nyc.gov/html/dcas/downloads/pdf/misc/pdf\\_c\\_special\\_circumstances\\_guide.pdf](http://www.nyc.gov/html/dcas/downloads/pdf/misc/pdf_c_special_circumstances_guide.pdf) and available at the DCAS Computer-based Testing & Applications Centers. This guide gives important information about claiming Veterans' or Legacy credit, and notifying DCAS of a change in your mailing address. Follow all instructions on the Special Circumstances Guide that pertain to you when you complete your "Application for Examination."

**REQUIRED INFORMATION:**

- 1. Application for Examination:** Follow the online instructions, including those relating to the payment of fee and, if applicable, those found in the Special Circumstances Guide.
- 2. Affirmation Form:** The Affirmation Form, which is found online, must be printed, signed, dated and sent by mail to the address on the form. If DCAS does not receive your completed Affirmation Form, your application will not be considered complete, and your name will not appear on the eligible list for this examination.
- 3. Education and Experience Test:** Fill out **Sections A.1 (if applicable), A.2, A.4 (if applicable), A.5 (if applicable), B, and D (if applicable)**. This test must be filled out completely and in detail for you to receive your proper rating. Follow the online instructions.
- 4. Foreign Education Evaluation Guide: (Required only if you need credit for your foreign education to meet the education and experience requirements):** If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. The services that are approved to make this evaluation are listed on the Foreign Education Evaluation Guide located on the Department of Citywide Administrative Services (DCAS) website at

[www.nyc.gov/html/dcas/downloads/pdf/misc/foreigneducation.pdf](http://www.nyc.gov/html/dcas/downloads/pdf/misc/foreigneducation.pdf). When you contact the evaluation service, ask for a **"document-by-document" (general)** evaluation of your foreign education. You must have one of these services submit its evaluation of your foreign education directly to DCAS no later than eight weeks from January 31, 2019.

### THE TEST:

Your score will be determined by an education and experience test. You will receive a score of 70 points for meeting the education and experience requirements listed above. After these requirements are met, you will receive additional credit up to a maximum of 100 points on the following basis:

<b>If you have satisfactory, full-time paid experience in an administrative or managerial capacity in the areas of computer applications programming, systems programming, information systems development, data telecommunications, data base administration or a closely related area for:</b>	<b>You will receive:</b>
At least 1 year but less than 2 years	6 points
At least 2 years but less than 3 years	12 points
At least 3 year but less than 4 years	18 points
At least 4 years but less than 5 years	24 points
5 or more years	30 points

You will receive a maximum of one year of experience credit for each year you worked. If you have any of the above experience on a part-time basis, it will be credited according to the equivalent percent of full-time experience.

**You must clearly specify in detail all of your relevant experience on your Education and Experience Test and submit it by the end of the application period.** You will **not** receive credit for experience which you obtain **after** the end of the application period. Experience must be obtained **by the last day of the Application Period.**

**Experience used to meet the minimum requirements cannot be used to gain additional credit.**

### CHANGE OF MAILING AND/OR EMAIL ADDRESS:

It is critical that you promptly notify DCAS of any change to your mailing address and/or email address. If we do not have your correct mailing and/or email address, you will not receive information about your exam(s), consideration for appointment and/or important information that may require a response by a specified deadline. Change of mailing and/or email address requests submitted to any agency other than DCAS, such as to the United States Postal Service, will NOT update your records with DCAS.

To update your mailing and/or email address with DCAS, you must submit the change request by mail or in person. Your request must include your full name, social security number, exam title(s), exam number(s), previous mailing and/or email address, and your new mailing and/or email address. Your request can be mailed to DCAS Records Room, 1 Centre Street, 14th Floor, New York, NY 10007 or brought in person to the same address Monday through Friday from 9AM to 5PM. The following link will provide you with the DCAS Data Correction Form: <http://www.nyc.gov/html/dcas/downloads/pdf/misc/dp148a.pdf>.

### THE TEST RESULTS:

If you pass the education and experience test, your name will be placed in final score order on a CUNY eligible list, you will be given a list number and you will be notified by mail of your test results. The eligible list determines the order by which candidates will be considered for appointment. If you meet all requirements and conditions, you will be considered for appointment if your name is reached on the eligible list.

### ADDITIONAL INFORMATION:

#### **Appointment of New York City Civil Service Employees:**

Please note that CUNY is a separate municipal employer; therefore, employees of New York City agencies cannot transfer to CUNY. If an employee of a New York City agency accepts a position with CUNY, the employee's date of appointment for the purposes of salary, seniority, and time and leave accruals is his/her date of appointment to CUNY.

#### **Selective Certification for Certification and/or Special Experience:**

If you have the certification and/or experience listed in one or more of the areas listed below, you may be considered for appointment to positions requiring a certification and/or experience through a process called Selective Certification. If you qualify for Selective Certification, you may be given preferred consideration for positions requiring this certification and/or experience. Your certification(s) and/or experience will be checked by CUNY at the time of appointment.

**Note:** In Section D of the Education and Experience Test, please enter the 3-digit code which corresponds to the Selective Certification(s) you wish to be considered for, and separate each with a comma and no space. There should be no more than ten (10) Selective Certification entries per line. For example, if you wish to select Selective Certifications #1, #2, #3 and #4, enter the following in Section D of the Education and Experience Test: AAT,SUM,105,APS.

1. **Academic Advisement Tool:** At least two (2) years of satisfactory, full-time experience managing, administering and supporting an academic advisement audit tool such as but not limited to Banner and DegreeWorks. The experience **must** include working with SQL scripting language, automating processes and back-end jobs, and running reports and queries. **To add Selective Certification for Academic Advisement Tool, enter "AAT" in Section D of the Education and Experience Test.**
2. **Agile Scrum Certification:** A valid SCRUM certification (e.g., Certified Scrum Professional (CSP) from any institution, PMI Agile Certified Practitioner (PMI-ACP) from the Project Management Institute (PMI), or Certified Scrum Master (CSM) from any institution). **To add Selective Certification for Agile Scrum Certification, enter "SUM" in Section D of the Education and Experience Test.**

3. **Apple Certified Associate—Mac Integration 10.12 or Higher Certification:** A valid Apple Certified Associate—Mac Integration 10.12 or higher certification from an Apple authorized training provider. **To add Selective Certification for Apple Certified Associate—Mac Integration 10.12 or Higher Certification, enter "105" in Section D of the Education and Experience Test.**
4. **Apple Support Certification:** A valid Apple Certified Technical Coordinator (ACTC) certification from Apple or a valid Apple Certified Macintosh Technician (ACMT) certification from Apple. **To add Selective Certification for Apple Support Certification, enter "APS" in Section D of the Education and Experience Test.**
5. **Application Delivery Controllers (ADC)/Load Balancers:** At least two (2) years of satisfactory, full-time experience in designing and supporting the availability and performance of Application Delivery Controllers (ADC)/Load Balancers as provided by vendors such as F5, Citrix and A10 Networks. **To add Selective Certification for Application Delivery Controllers (ADC)/Load Balancers, enter "840" in Section D of the Education and Experience Test.**
6. **Backup Administration:** At least five (5) years of satisfactory, full-time experience in backup administration and management, including Veeam Backup and Replication and Dell/EMC Datadomain; in-depth installation, configuration, administration and tuning backup applications and systems. **To add Selective Certification for Backup Administration, enter "119" in Section D of the Education and Experience Test.**
7. **Batch Automation:** At least five (5) years of satisfactory, full-time experience with batch automation scheduling software to include, but not limited to: CA Technologies CA-7, CA Technologies AutoSys, MVP JAMS and/or BMC Control-M. **To add Selective Certification for Batch Automation, enter "841" in Section D of the Education and Experience Test.**
8. **Blackboard Administration:** At least two (2) years of satisfactory, full-time experience managing and administering Blackboard Learn and all related services/tools such as, but are not limited to: Building Blocks and Learning Tools Interoperability (LTI). The experience **must** include using scripting languages such as SQL, Perl and/or Python to develop integration of Blackboard Learn to other systems, the automation of processes and back-end jobs, and running reports and queries. **To add Selective Certification for Blackboard Administration, enter "842" in Section D of the Education and Experience Test.**
9. **BMC Control-M:** At least two (5) years of satisfactory, full-time experience in installing, maintaining, and configuring all Control-M Environments (EM, Servers, and Agents). **To add Selective Certification for BMC Control-M, enter "843" in Section D of the Education and Experience Test.**
10. **Business Intelligence (BI) Analysis:** At least two (2) years of satisfactory, full-time experience in the analysis, design and implementation of Business Intelligence (BI) applications and reporting solutions that includes tasks and activities utilizing BI concepts and Data Warehousing methodologies (e.g., Star Schemas, Dimensional Models, and Data marts), analyzing and designing solutions using BI Tools and/or data modeling, data copying/ETL (Extract, Transform and Load) design and developing and employing functional artifacts. Examples include, but are not limited to: BI Tools: OBIEE, Jasper, Tableau, Crystal Report, SSRS, Cognos; Data Copying: Informatica, SSIS, Talend, Pentaho, iWay; Functional artifacts: Requirements Definitions, Report Mockups, Report Designs, Data Dictionary, Conceptual data models, Glossary. **To add Selective Certification for Business Intelligence (BI) Analysis, enter "BIA" in Section D of the Education and Experience Test.**
11. **Certified Business Analysis Professional (CBAP) Certification:** A valid Certified Business Analysis Professional (CBAP) certification from International Institute of Business Analysis (IIBA). **To add Selective Certification for Certified Business Analysis Professional (CBAP) Certification, enter "CBA" in Section D of the Education and Experience Test.**
12. **Certified Business Continuity Professional (CBCP) Certification:** A valid Certified Business Continuity Professional (CBCP) certification from Disaster Recovery Institute International (DRI). **To add Selective Certification for Certified Business Continuity Professional (CBCP) Certification, enter "844" in Section D of the Education and Experience Test.**
13. **Certified Cloud Systems Professional (CCSP) Certification:** A valid Certified Cloud Systems Professional (CCSP) certification from (ISC)<sup>2</sup>. **To add Selective Certification for Certified Cloud Systems Professional (CCSP) Certification, enter "156" in Section D of the Education and Experience Test.**
14. **Certified Disaster Recovery Engineer C)DRE Certification:** A valid Certified Disaster Recovery Engineer C)DRE certification from Mile2. **To add Selective Certification for Certified Disaster Recovery Engineer C)DRE Certification, enter "DIR" in Section D of the Education and Experience Test.**
15. **Certified Ethical Hacker (CEH) Certification:** A valid Certified Ethical Hacker (CEH) certification from the International Council of E-Commerce Consultants (EC-Council). **To add Selective**

**Certification for Certified Ethical Hacker (CEH) Certification, enter "175" in Section D of the Education and Experience Test.**

16. **Certified Expert Penetration Tester (CEPT) Certification:** A valid Certified Expert Penetration Tester (CEPT) certification from the Information Assurance Certification Review Board (IACRB). **To add Selective Certification for Certified Expert Penetration Tester (CEPT) Certification, enter "167" in Section D of the Education and Experience Test.**
17. **Certified Forensic Analyst (GIAC-GCFA) Certification:** A valid Certified Forensic Analyst (GIAC-GCFA) certification from the Global Information Assurance Certification (GIAC). **To add Selective Certification for Certified Forensic Analyst (GIAC-GCFA) Certification, enter "301" in Section D of the Education and Experience Test.**
18. **Certified Information Security Manager (CISM) Certification:** A valid Certified Information Security Manager (CISM) certification from the Information Systems Audit and Control Association (ISACA). **To add Selective Certification for Certified Information Security Manager (CISM) Certification, enter "400" in Section D of the Education and Experience Test.**
19. **Certified Information Systems Auditor (CISA) Certification:** A valid Certified Information Systems Auditor (CISA) certification from the Information Systems Audit and Control Association (ISACA). **To add Selective Certification for Certified Information Systems Auditor (CISA) Certification, enter "401" in Section D of the Education and Experience Test.**
20. **Certified Information Systems Security Professional (CISSP) Certification:** A valid Certified Information Systems Security Professional (CISSP) certification from (ISC)<sup>2</sup>. **To add Selective Certification for Certified Information Systems Security Professional (CISSP) Certification, enter "413" in Section D of the Education and Experience Test.**
21. **Certified Penetration Testing Engineer (C)PTE) Certification:** A valid Certified Penetration Testing Engineer (C)PTE) certification from Mile2. **To add Selective Certification for Certified Penetration Testing Engineer (C)PTE) Certification, enter "470" in Section D of the Education and Experience Test.**
22. **Certified Security Testing Associate (CSTA) Qualification:** A valid Certified Security Testing Associate (CSTA) qualification from 7Safe. **To add Selective Certification for Certified Security Testing Associate (CSTA) Qualification, enter "170" in Section D of the Education and Experience Test.**
23. **Cisco Catalyst Switches:** Successful and verifiable completion of comprehensive training in Cisco Catalyst Switches related to installation, configuration, monitoring, troubleshooting, and administration in Catalyst 3560 Series Switches; Catalyst 3750 Series Switches; Catalyst 3850 Series Switches; Catalyst 4500 Series Switches; Catalyst 6000 Series Switches; Catalyst 7000 Series Switches; and Catalyst 9000 Series Switches. **To add Selective Certification for Cisco Catalyst Switches, enter "845" in Section D of the Education and Experience Test.**
24. **Cisco Certified Network Associate (CCNA) Certification:** A valid Certified Cisco Network Associate (CCNA) certification from Cisco. **To add Selective Certification for Cisco Certified Network Associate (CCNA) Certification, enter "15C" in Section D of the Education and Experience Test.**
25. **Cisco Certified Network Associate (CCNA) Data Center Certification:** A valid Cisco Certified Network Associate (CCNA) Data Center certification from Cisco. **To add Selective Certification for Cisco Certified Network Associate (CCNA) Data Center Certification, enter "15D" in Section D of the Education and Experience Test.**
26. **Cisco Certified Network Professional Security (CCNP Security) Certification:** A valid Cisco Certified Network Professional Security (CCNP Security) certification from Cisco. **To add Selective Certification for Cisco Certified Network Professional Security (CCNP Security) Certification, enter "160" in Section D of the Education and Experience Test.**
27. **Cisco Nexus Series Switches:** Successful and verifiable completion of comprehensive training in Cisco Nexus Series Switches in areas such as: Nexus installation, configuration, monitoring, troubleshooting, and administration; Nexus 9000 Series; Nexus 7000 Series; Nexus 5000 Series; Nexus 2000 Series; Nexus 1000 Series; and Nexus FEX. **To add Selective Certification for Cisco Nexus Series Switches, enter "846" in Section D of the Education and Experience Test.**
28. **Cisco Routers:** Successful and verifiable completion of comprehensive training in Cisco Routers related to installation, configuration, monitoring, troubleshooting, and administration in Cisco ISR 2900 Series; Cisco ISR 4000 Series; Cisco ASR 1000 Series; and Cisco ASR 9000 Series. **To add Selective Certification for Cisco Routers, enter "847" in Section D of the Education and Experience Test.**

29. **Cisco Training:** Successful and verifiable completion of at least one (1) course from a Cisco authorized learning partner. **To add Selective Certification for Cisco Training, enter "848" in Section D of the Education and Experience Test.**
30. **Cloud Architecture:** At least two (2) years of satisfactory, full-time experience in the design, development and support working to design highly scalable, flexible, and resilient cloud architectures (IaaS, PaaS, SaaS), automation, orchestration, cost frameworks, and public/private/hybrid cloud architecture. **To add Selective Certification for Cloud Architecture, enter "CAH" in Section D of the Education and Experience Test.**
31. **CompTIA Advanced Security Practitioner (CASP) Certification:** A valid CompTIA Advanced Security Practitioner (CASP) certification from CompTIA. **To add Selective Certification for CompTIA Advanced Security Practitioner (CASP) Certification, enter "CAY" in Section D of the Education and Experience Test.**
32. **CompTIA Security+ Certification:** A valid CompTIA Security+ certification from CompTIA. **To add Selective Certification for CompTIA Security+ Certification, enter "230" in Section D of the Education and Experience Test.**
33. **Computer Hacking Forensic Investigator (CHFI) Certification:** A valid Certified Forensic Analyst (GIAC-GCFA) certification from the International Council of E-Commerce Consultants (EC-Council). **To add Selective Certification for Computer Hacking Forensic Investigator (CHFI) Certification, enter "CHF" in Section D of the Education and Experience Test.**
34. **Computer Telephony Integration Systems Administration:** At least two (2) years of satisfactory, full-time experience in administering, supporting, designing, developing, installing, configuring, implementing, maintaining and/or enhancing Computer Telephony Integration systems. Examples include, but are not limited to: Genesys, PBX, Nortel or/and Avaya Telephony system IIS, Siebel, MS Dynamics, Oracle CRM and Salesforce with strong knowledge of Unix, Linux and SQL. **To add Selective Certification for Computer Telephony Integration Systems Administration, enter "CTI" in Section D of the Education and Experience Test.**
35. **Configuration Management Development:** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance and enhancement of configuration management development in a web-based environment. The experience should include, but is not limited to: TeamCity, Hudson, Chef and TFS - Team Foundation Server, Ruby on Rail, Python, PHP, Git, Subversion, Unix and Windows. **To add Selective Certification for Configuration Management Development, enter "CMD" in Section D of the Education and Experience Test.**
36. **Content Management Systems Development:** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance and enhancement of content management systems development. The experience should include, but is not limited to: EMC Documentum, TeamSite/LiveSite, OpenDeploy, Java, ANT, TeamCity, Subversion, Rules Engine and Junit. **To add Selective Certification for Content Management Systems Development, enter "MSD" in Section D of the Education and Experience Test.**
37. **Data Center Operations Management:** At least five (5) years of satisfactory, full-time experience managing, designing and building data centers including rack layout, efficient cooling and high availability throughout. **To add Selective Certification for Data Center Operations Management, enter "849" in Section D of the Education and Experience Test.**
38. **Database Management Systems Certification:** A valid professional certification in one or more database management systems (e.g., Oracle 11g, Microsoft SQL Server, IBM DB2, Sybase, MySQL). **To add Selective Certification for Database Management Systems Certification, enter "219" in Section D of the Education and Experience Test.**
39. **DegreeWorks:** At least two (2) years of satisfactory, full-time experience managing, administering and supporting DegreeWorks, a degree audit and academic advising system, and all related services. **To add Selective Certification for DegreeWorks, enter "850" in Section D of the Education and Experience Test.**
40. **Desktop Support Management:** At least two (2) years satisfactory, full-time experience in management or administration of desktop support. **To add Selective Certification for Desktop Support Management, enter "851" in Section D of the Education and Experience Test.**
41. **Docker/Kubernetes:** At least two (2) years of satisfactory, full-time experience with Kubernetes based administration and/or engineering, including but not limited to: administering, structuring, architecting, and supporting Docker based applications in an enterprise Docker cluster. **To add Selective Certification for Docker/Kubernetes, enter "852" in Section D of the Education and Experience Test.**
42. **EC-Council Certified Security Analyst (ECSA) Certification:** A valid EC-Council Certified Security Analyst (ECSA) certification from the International Council of E-Commerce Consultants (EC-Council).

**To add Selective Certification for EC-Council Certified Security Analyst (ECSA) Certification, enter "236" in Section D of the Education and Experience Test.**

43. **Event Scheduling Tool:** At least two (2) years of satisfactory, full-time experience managing, administering and supporting an event scheduling tool such as, but not limited to: Resource 25 or similar software, and related services. **To add Selective Certification for Event Scheduling Tool, enter "853" in Section D of the Education and Experience Test.**
44. **F5 Training:** Successful and verifiable completion of at least one (1) course from an F5 authorized learning partner. **To add Selective Certification for F5 Training, enter "854" in Section D of the Education and Experience Test.**
45. **File Transfer:** At least two (2) years of satisfactory, full-time experience in File Transfer application administration, support and upgrade utilizing software such as OpenText Secure MFT, SEEBURGER, Primeur, Globalscape and IBM. **To add Selective Certification for File Transfer, enter "855" in Section D of the Education and Experience Test.**
46. **Firewall System Operations:** At least five (5) years of satisfactory, full-time experience maintaining responsibility for firewall operational security infrastructure through the identification and evaluation of security protection measures and controls around the technical operations infrastructure; responsible for the operations and maintenance of enterprise information security firewall controls; and responsible for ensuring the appropriate operational security procedure is maintained for information systems, programs and data. **To add Selective Certification for Firewall System Operations, enter "279" in Section D of the Education and Experience Test.**
47. **Front-End Development/Production:** At least two (2) years of satisfactory, full-time experience in HTML, HTML5, CSS, CSS Frameworks, Javascript Frameworks (e.g., AngularJS, React, etc.), CSS3, Javascript, Enterprise Content Management System, Photo/Graphics Editing Software, AJAX, XML, and/or JSON. **To add Selective Certification for Front-End Development/Production, enter "FED" in Section D of the Education and Experience Test.**
48. **GIAC Penetration Tester (GPEN) Certification:** A valid GIAC Penetration Tester (GPEN) certification from the Global Information Assurance Certification (GIAC). **To add Selective Certification for GIAC Penetration Tester (GPEN) Certification, enter "313" in Section D of the Education and Experience Test.**
49. **GIAC Security Essentials (GSEC) Certification:** A valid GIAC Security Essentials (GSEC) certification from the Global Information Assurance Certification (GIAC). **To add Selective Certification for GIAC Security Essentials (GSEC) Certification, enter "309" in Section D of the Education and Experience Test.**
50. **Graphics Design:** At least two (2) years of satisfactory, full-time experience in the design, development, implementation of marketing materials for the web, digital and print. Software experience must include, but is not limited to: Photoshop, Final Cut Pro X, Illustrator, InDesign, and/or Adobe Premiere. **To add Selective Certification for Graphics Design, enter "856" in Section D of the Education and Experience Test.**
51. **HDI Desktop Support Manager Certification:** A valid HDI Desktop Support Manager Certification from HDI. **To add Selective Certification for HDI Desktop Support Manager Certification, enter "857" in Section D of the Education and Experience Test.**
52. **HDI Support Center Manager Certification:** A valid HDI Support Center Manager Certification from HDI. **To add Selective Certification for HDI Support Center Manager Certification, enter "858" in Section D of the Education and Experience Test.**
53. **High Performing Computing Management (HPCC):** At least five (5) years of satisfactory, full-time experience in management or administration in the area(s) of cluster computing, virtual scientific storage, big data and security, and relational databases. **To add Selective Certification for High Performing Computing Management (HPCC), enter "859" in Section D of the Education and Experience Test.**
54. **HP Aruba Wireless Networking Training:** Successful and verifiable completion of at least one (1) course from a HP Aruba authorized learning partner. **To add Selective Certification for HP Aruba Wireless Networking Training, enter "860" in Section D of the Education and Experience Test.**
55. **IASSC Black Belt Certification:** A valid IASSC Black Belt Certification issued by the International Association for Six Sigma Certification (IASSC). **To add Selective Certification for IASSC Black Belt Certification, enter "861" in Section D of the Education and Experience Test.**
56. **IASSC Green Belt Certification:** A valid IASSC Green Belt Certification issued by the International Association for Six Sigma Certification (IASSC). **To add Selective Certification for IASSC Green Belt Certification, enter "LSS" in Section D of the Education and Experience Test.**

57. **Identity and Access Management:** At least five (5) years of progressively responsible full-time paid information systems technology experience, at least two (2) years of which **must** have been in Identity and Access Management (IDAM) or a related subfield. The experience **must** include one or a combination of the following: IDAM using Oracle Identity and Access Manager/Governance or equivalent applications; LDAP Directory Services using Oracle Internet/Virtual/Unified Directory or equivalent applications; Federation services using Shibboleth/SAML2.0 or equivalent standards; Application, service, system, and/or network (logical) architecture design; IT Service Management; Middleware administration and support (Apache and/or Oracle products—e.g. Apache Server, Tomcat, OHS); UNIX/Linux OS administration; Shell scripting for UNIX/Linux (e.g. BASH and KornShell); Database administration (SQL family); Application/service troubleshooting and integration; Production change control practices and processes; Business Analysis and Requirements Engineering; Process monitoring and automation; and/or Java programming. **To add Selective Certification for Identity and Access Management, enter "862" in Section D of the Education and Experience Test.**
58. **Infoblox Training:** Successful and verifiable completion of at least one (1) course from an Infoblox authorized learning partner. **To add Selective Certification for Infoblox Training, enter "863" in Section D of the Education and Experience Test.**
59. **Information Technology Infrastructure Library (ITIL) Foundation Certification:** A valid Information Technology Infrastructure Library (ITIL) Foundation certification from Axelos. **To add Selective Certification for Information Technology Infrastructure Library (ITIL) Foundation Certification, enter "39E" in Section D of the Education and Experience Test.**
60. **Information Technology Infrastructure Library (ITIL) Intermediate Certification:** A valid Information Technology Infrastructure Library (ITIL) Intermediate certification from Axelos. **To add Selective Certification for Information Technology Infrastructure Library (ITIL) Intermediate Certification, enter "864" in Section D of the Education and Experience Test.**
61. **Information Technology Infrastructure Library (ITIL) Practitioner Certification:** A valid Information Technology Infrastructure Library (ITIL) Practitioner certification from Axelos. **To add Selective Certification for Information Technology Infrastructure Library (ITIL) Practitioner Certification, enter "39F" in Section D of the Education and Experience Test.**
62. **Integrated Library System (ILS):** At least two (2) years of satisfactory, full-time experience managing and administering an Integrated Library System (ILS). **To add Selective Certification for Integrated Library System (ILS), enter "865" in Section D of the Education and Experience Test.**
63. **Intrusion Prevention System Operations:** At least five (5) year of satisfactory, full-time experience monitoring an enterprise network using Intrusion Prevention System (IPS) Technologies, for malicious activities such as security threats and policy violations. **To add Selective Certification for Intrusion Prevention System Operations, enter "39P" in Section D of the Education and Experience Test.**
64. **IP Services:** At least three (2) years of satisfactory, full-time experience in designing and supporting the availability and performance of IP services infrastructure such as DNS and DHCP as provided by vendors such as Infoblox, Cisco OpenDNS, Microsoft Windows and/or Bluecat DNA. **To add Selective Certification for IP Services, enter "866" in Section D of the Education and Experience Test.**
65. **IP Telephone Engineering:** At least two (2) years of satisfactory, full-time experience in designing and supporting the availability and performance of an IP Telephony system, which is considered mission-critical. This entails effectively applying technical skills and knowledge to specific projects and escalated problems from the Network Operations Center (NOC). The experience should include, but is not limited to: monitoring performance and diagnosing problems in all aspects of the IP Telephony system, so that acceptable levels of performance are maintained at all times, engineering and implementing IP Telephony solutions in a timely manner, connecting equipment, conducting tests, configuring equipment, and developing/updating procedures, updating documentation (drawings, spreadsheets, documents) of the IP Telephony system, producing reports in a fashion that is useful for peer and management review, and operating diagnostic tools to isolate IP Telephony system issues. Experience with integrating IP telephony systems with external applications like ticket management and fax services is also desired. **To add Selective Certification for IP Telephone Engineering, enter "867" in Section D of the Education and Experience Test.**
66. **IP Telephone Systems Architecture:** At least two (2) years of satisfactory, full-time experience in designing enterprise-class IP telephone systems such as those manufactured by companies such as Cisco and Avaya. Knowledge of designing analog and digital voice gateways along with technologies such as SIP is also required. Experience with integrating IP telephony systems with external applications such as ticket management and fax processing systems is desired. **To add Selective Certification for IP Telephone Systems Architecture, enter "868" in Section D of the Education and Experience Test.**
67. **IP Telephony Administration:** At least two (2) years of satisfactory, full-time experience in administering, supporting enterprise-class IP Telephone systems (VOIP) such as those manufactured



by Cisco and Avaya. The experience should include, but is not limited to installing, removing and modifying IP telephones, processing service tickets relating to VOIP telephone and system changes, and implementing VOIP telephone and system adds/moves/changes. **To add Selective Certification for IP Telephony Administration, enter "869" in Section D of the Education and Experience Test.**

68. **IT Project Management:** At least five (5) years of satisfactory, full-time IT project management experience implementing a broad range of IT projects including full-life cycle of tactical and strategic systems and development initiatives through the application of project management tools and methodologies. IT project experience includes, but is not limited to the following: application development, software and hardware deployment and/or decommissioning, and/or implementation of off-the-shelf and custom software. **To add Selective Certification for IT Project Management, enter "870" in Section D of the Education and Experience Test.**
69. **IT Resiliency:** A valid Certified Business Continuity Professional (CBCP) certification from DRI International, Inc. **or** a valid Certification of the Business Continuity Institute (CBCI) from BCI **or** a valid Master Business Continuity Professional (MBCP) certification from DRI International, Inc. **or** a valid Certified Disaster Recovery Manager (CDR Manager) certification from BCM Institute **or** a valid Certified Business Continuity Manager (CBCM) certification from Certified Information Security (CIS) **or** a valid Certified Disaster Recovery Engineer (CDRE) certification from Mile2 **or** a valid Certified Business Continuity Auditor (CBCA) certification from DRI International, Inc. **or** a valid Certified Business Continuity Lead Auditor (CBCLA) certification from DRI International, Inc. **and** at least three (3) years of satisfactory, full-time experience directly supporting an enterprise organization's mission to build its adaptive capacity in a complex and changing environment, including but not limited to: strengthening the organizations efforts to resist being affected by an incident or event with the potential to impact IT operations or service delivery, supporting the return to an acceptable level of performance in an acceptable period of time after being affected by an incident or event, developing strategies and contingencies that ensure critical systems and applications can maintain their functions through internal and external change (planned or unplanned), and to gracefully failover systems when required through Business Continuity and Disaster Recovery management and planning. The experience **must** include compliance with U.S. Department of Homeland Security, Federal Continuity Directive 1 (Jan 2017 Resilience) and other governance directives. **To add Selective Certification for IT Resiliency, enter "871" in Section D of the Education and Experience Test.**
70. **Learning Management Systems (LMS):** At least two (2) years of satisfactory, full-time experience managing and administering a Learning Management System (LMS) to include but not limited to: Blackboard Learn, Canvas, Moodle, and/or Apple Technical Learning Administration System (ATLAS) and all related services. The experience should include related services/tools such as: Building Blocks and Learning Tools Interoperability (LTI), scripting languages such as SQL, Perl and/or Python to develop integration of a LMS to other systems, automation of processes and back-end jobs, and running reports and queries. **To add Selective Certification for Learning Management Systems (LMS), enter "872" in Section D of the Education and Experience Test.**
71. **Mainframe Development:** At least two (2) years of satisfactory, full-time experience developing applications in IBM Mainframe including but not limited to the following areas: z/OS environment DB2 Installs, SMP/E, DB2 Connect for Windows and Z/Linux, MQ Series, DB2 Utilities, DB2 Version 8 +), Assembler, TSO/ISPF, JCL, IDMS, PL/I, REXX, Wylbur, IBM utilities, CICS/COBOL and Z/Linux. **To add Selective Certification for Mainframe Development, enter "465" in Section D of the Education and Experience Test.**
72. **Master Business Continuity Professional (MBCP) Certification:** A valid Master Business Continuity Professional (MBCP) certification from Disaster Recovery Institute International (DRII). **To add Selective Certification for Master Business Continuity Professional (MBCP) Certification, enter "873" in Section D of the Education and Experience Test.**
73. **Messaging & Collaboration Engineering:** At least five (5) years of satisfactory, full-time experience working with MS Exchange, MS SharePoint, MS Lync, Storage Devices (including NetApp and EMC), BES, Windows Server, Archiving Solutions (including Enterprise Vault), eDiscovery, Scripting languages such as vbscript and PowerShell. **To add Selective Certification for Messaging & Collaboration Engineering, enter "467" in Section D of the Education and Experience Test.**
74. **Microsoft Certified Solutions Associate (MCSA) Certification:** A valid Microsoft Certified Solutions Associate (MCSA) certification from Microsoft. **To add Selective Certification for Microsoft Certified Solutions Associate (MCSA) Certification, enter "MCA" in Section D of the Education and Experience Test.**
75. **Microsoft Certified Solutions Expert (MCSE) Certification:** A valid Microsoft Certified Solutions Expert (MCSE) certification from Microsoft. **To add Selective Certification for Microsoft Certified Solutions Expert (MCSE) Certification, enter "MCE" in Section D of the Education and Experience Test.**

76. **Microsoft IIS:** At least two (2) years satisfactory, full-time experience administrating Microsoft IIS servers. **To add Selective Certification for Microsoft IIS, enter "874" in Section D of the Education and Experience Test.**
77. **Microsoft Project Certification:** A valid International Institute for Learning Microsoft Project certification. **To add Selective Certification for Microsoft Project Certification, enter "46R" in Section D of the Education and Experience Test.**
78. **Microsoft SQL Database:** At least two (2) years satisfactory, full-time experience administrating Microsoft SQL Database. **To add Selective Certification for Microsoft SQL Database, enter "875" in Section D of the Education and Experience Test.**
79. **Microsoft Training:** Successful and verifiable completion of at least one (1) course from a Microsoft authorized learning partner. **To add Selective Certification for Microsoft Training, enter "876" in Section D of the Education and Experience Test.**
80. **Microsoft Visual Studio:** At least two (2) years of satisfactory, full-time experience maintaining a collection of applications and developing code utilizing designer tools in suite to include but not limited to: Windows forms designer, web designer/development and class designer. **To add Selective Certification for Microsoft Visual Studio, enter "877" in Section D of the Education and Experience Test.**
81. **Middleware Administration and Development:** At least two (2) years of satisfactory, full-time experience administering Middlewares to include but not limited to the following areas: J2EE, Tomcat, WebLogic, and WebSphere. **To add Selective Certification for Middleware Administration and Development, enter "878" in Section D of the Education and Experience Test.**
82. **Mobile Application Development - Android:** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance and enhancement of mobile application development. Experience should include, but is not limited to: Objective-C, Java, Android APIs such as JSON, REST, XML, and SOAP, and UI/UX design. **To add Selective Certification for Mobile Application Development - Android, enter "879" in Section D of the Education and Experience Test.**
83. **Mobile Application Development - iOS:** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance and enhancement of mobile applications. **To add Selective Certification for Mobile Application Development - iOS, enter "880" in Section D of the Education and Experience Test.**
84. **Monitoring Tools:** At least two (2) years of satisfactory, full-time experience with utilizing monitoring tools including, but not limited to: Solarwinds, SevOne NMS, HP Sidescope and Nagiosill to support an enterprise monitoring environment. The experience should include the evaluation and purchase of application tools, troubleshooting performance issues and collaborating with respective IT units for problem resolution in a linux and windows server environment. **To add Selective Certification for Monitoring Tools, enter "881" in Section D of the Education and Experience Test.**
85. **NetApp:** At least five (5) years of satisfactory, full-time experience in design, deployment, administration, and operations of Enterprise level SAN and NAS solutions. The experience should include, but is not limited to: all levels of the project cycle from architecting to deployment to day to day operations including troubleshooting Enterprise class data storage systems in multiple OS environments. At least three (3) years of satisfactory, full-time experience in managing a clustered, ONTAP 8 or higher environment. In depth knowledge of FC, ISCSI, NFS and CIFS protocols. Experience with Snapmanager, Snapmirror, Snapvault suite of products. ONTAP NCDA administrator certification a plus. **To add Selective Certification for NetApp, enter "882" in Section D of the Education and Experience Test.**
86. **NetApp Certified Data Administrator (NCDA) Certification:** A valid NetApp Certified Data Administrator (NCDA) certification from Network Appliance. **To add Selective Certification for NetApp Certified Data Administrator (NCDA) Certification, enter "490" in Section D of the Education and Experience Test.**
87. **Network Architecture:** At least (2) years of satisfactory, full-time experience with designing large (50+ device) enterprise networks, including the understanding of the requirements to choose the correct hardware, software and feature sets to solve a need, and be able to create network diagrams that are easily understood and updated. **To add Selective Certification for Network Architecture, enter "883" in Section D of the Education and Experience Test.**
88. **Network Management:** At least (5) years of satisfactory, full-time experience supporting all aspects of a large (50+ device) enterprise network, including designing, enhancing, troubleshooting and implementing enterprise-class wired, wireless, optical and VOIP networks. At least three (3) years of which must be experience directly or indirectly managing a team of network engineers. **To add Selective Certification for Network Management, enter "884" in Section D of the Education and Experience Test.**

89. **Object Storage:** At least two (2) years of satisfactory, full-time experience in Object Storage. **To add Selective Certification for Object Storage, enter "885" in Section D of the Education and Experience Test.**
90. **Offensive Security Certified Professional (OSCP) Certification:** A valid Offensive Security Certified Professional (OSCP) certification from Offensive Security. **To add Selective Certification for Offensive Security Certified Professional (OSCP) Certification, enter "568" in Section D of the Education and Experience Test.**
91. **Office 365 Messaging and Collaboration Engineering:** At least two (2) years of satisfactory, full-time experience developing, implementing and/or administering Microsoft Office 365 cloud technologies, which must include developing, implementing and administering Microsoft Azure solutions, configuring and operating a hybrid cloud with Microsoft Azure stack, and managing Microsoft Office 365 identities and requirements. The experience must include Microsoft Windows Server, Active Directory, Azure Active Directory, VMware/Microsoft virtualization platforms, eDiscovery, federation, email hygiene and email archiving technologies and and scripting languages to include PowerShell, Javascript, and VBscript. **To add Selective Certification for Office 365 Messaging and Collaboration Engineering, enter "886" in Section D of the Education and Experience Test.**
92. **OPNET Training:** Successful and verifiable completion of at least one (1) course from an OPNET authorized learning partner. **To add Selective Certification for OPNET Training, enter "887" in Section D of the Education and Experience Test.**
93. **Oracle Database:** At least two (2) years of satisfactory, full-time experience administrating Oracle Database. **To add Selective Certification for Oracle Database, enter "888" in Section D of the Education and Experience Test.**
94. **Oracle DBA:** At least two (2) years of satisfactory, full-time experience as an Oracle DBA implementing and managing Oracle RAC environments, implementing Grid Infrastructure release 11.2 or higher on a Unix/Linux environment, implementing and maintaining ASM cluster Filesystem, patching grid infrastructure software, and implementing instance caging. **To add Selective Certification for Oracle DBA, enter "580" in Section D of the Education and Experience Test.**
95. **Oracle Training:** Successful and verifiable completion of at least one (1) course from an Oracle authorized learning partner. **To add Selective Certification for Oracle Training, enter "889" in Section D of the Education and Experience Test.**
96. **PeopleSoft - Accounts Payable:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Accounts Payable module. **To add Selective Certification for PeopleSoft - Accounts Payable, enter "891" in Section D of the Education and Experience Test.**
97. **PeopleSoft - Activity Guides:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Activity Guides module. **To add Selective Certification for PeopleSoft - Activity Guides, enter "892" in Section D of the Education and Experience Test.**
98. **PeopleSoft - Administrative Tools:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Administrative Tools module. **To add Selective Certification for PeopleSoft - Administrative Tools, enter "893" in Section D of the Education and Experience Test.**
99. **PeopleSoft - Application Designer:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Application Designer module. **To add Selective Certification for PeopleSoft - Application Designer, enter "894" in Section D of the Education and Experience Test.**
100. **PeopleSoft - Application Engine:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Application Engine module. **To add Selective Certification for PeopleSoft - Application Engine, enter "895" in Section D of the Education and Experience Test.**
101. **PeopleSoft - Approval Workflow Engine (AWE):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Approval Workflow Engine (AWE) module. **To add Selective Certification for PeopleSoft - Approval Workflow Engine (AWE), enter "896" in Section D of the Education and Experience Test.**
102. **PeopleSoft - Asset Management:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Asset Management module. **To add Selective Certification for PeopleSoft - Asset Management, enter "897" in Section D of the Education and Experience Test.**

103. **PeopleSoft - Benefits Administration:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Benefits Administration module. **To add Selective Certification for PeopleSoft - Benefits Administration, enter "898" in Section D of the Education and Experience Test.**
104. **PeopleSoft - Budgeting:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Budgeting module. **To add Selective Certification for PeopleSoft - Budgeting, enter "899" in Section D of the Education and Experience Test.**
105. **PeopleSoft - Campus Solutions (CS):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Campus Solutions (CS) module. **To add Selective Certification for PeopleSoft - Campus Solutions (CS), enter "900" in Section D of the Education and Experience Test.**
106. **PeopleSoft - Cash Management:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Cash Management module. **To add Selective Certification for PeopleSoft - Cash Management, enter "901" in Section D of the Education and Experience Test.**
107. **PeopleSoft - Commitment Control:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Commitment Control module. **To add Selective Certification for PeopleSoft - Commitment Control, enter "902" in Section D of the Education and Experience Test.**
108. **PeopleSoft - Component Interface:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Component Interface module. **To add Selective Certification for PeopleSoft - Component Interface, enter "903" in Section D of the Education and Experience Test.**
109. **PeopleSoft - CRM:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - CRM module. **To add Selective Certification for PeopleSoft - CRM, enter "904" in Section D of the Education and Experience Test.**
110. **PeopleSoft - Curriculum Management:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Curriculum Management module. **To add Selective Certification for PeopleSoft - Curriculum Management, enter "905" in Section D of the Education and Experience Test.**
111. **PeopleSoft - Direct Connect:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Direct Connect module. **To add Selective Certification for PeopleSoft - Direct Connect, enter "906" in Section D of the Education and Experience Test.**
112. **PeopleSoft - Enterprise Learning Management:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Enterprise Learning Management (ELM) module. **To add Selective Certification for PeopleSoft - Enterprise Learning Management, enter "907" in Section D of the Education and Experience Test.**
113. **PeopleSoft - Enterprise Performance Management (EPM):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Enterprise Performance Management (EPM) module. **To add Selective Certification for PeopleSoft - Enterprise Performance Management (EPM), enter "908" in Section D of the Education and Experience Test.**
114. **PeopleSoft - Enterprise Portal:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Enterprise Portal module. **To add Selective Certification for PeopleSoft - Enterprise Portal, enter "909" in Section D of the Education and Experience Test.**
115. **PeopleSoft - eProcurement:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - eProcurement module. **To add Selective Certification for PeopleSoft - eProcurement, enter "910" in Section D of the Education and Experience Test.**
116. **PeopleSoft - Excel to CI:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Excel to CI module. **To add Selective Certification for PeopleSoft - Excel to CI, enter "911" in Section D of the Education and Experience Test.**
117. **PeopleSoft - Financials:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Financials module. **To add Selective Certification for PeopleSoft - Financials, enter "912" in Section D of the Education and Experience Test.**
118. **PeopleSoft - General Ledger:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - General Ledger module. **To add Selective Certification for PeopleSoft - General Ledger, enter "913" in Section D of the Education and Experience Test.**

119. **PeopleSoft - Human Capital Management (HCM):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Human Capital Management (HCM) module. **To add Selective Certification for PeopleSoft - Human Capital Management (HCM), enter "914" in Section D of the Education and Experience Test.**
120. **PeopleSoft - Integration Broker:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Integration Broker module. **To add Selective Certification for PeopleSoft - Integration Broker, enter "915" in Section D of the Education and Experience Test.**
121. **PeopleSoft - Integration Tools:** At least three (3) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Integration Tools module. **To add Selective Certification for PeopleSoft - Integration Tools, enter "916" in Section D of the Education and Experience Test.**
122. **PeopleSoft - MarketPlace:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - MarketPlace module. **To add Selective Certification for PeopleSoft - MarketPlace, enter "917" in Section D of the Education and Experience Test.**
123. **PeopleSoft - North American Payroll:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - North American Payroll module. **To add Selective Certification for PeopleSoft - North American Payroll, enter "918" in Section D of the Education and Experience Test.**
124. **PeopleSoft - nVision:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - nVision module. **To add Selective Certification for PeopleSoft - nVision, enter "919" in Section D of the Education and Experience Test.**
125. **PeopleSoft - Payroll Interface:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Payroll Interface module. **To add Selective Certification for PeopleSoft - Payroll Interface, enter "920" in Section D of the Education and Experience Test.**
126. **PeopleSoft - Punchout:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Punchout module. **To add Selective Certification for PeopleSoft - Punchout, enter "921" in Section D of the Education and Experience Test.**
127. **PeopleSoft - Purchasing:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Purchasing module. **To add Selective Certification for PeopleSoft - Purchasing, enter "922" in Section D of the Education and Experience Test.**
128. **PeopleSoft - Query:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Query module. **To add Selective Certification for PeopleSoft - Query, enter "923" in Section D of the Education and Experience Test.**
129. **PeopleSoft - Structured Query Report (SQR):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Structured Query Report (SQR) module. **To add Selective Certification for PeopleSoft - Structured Query Report (SQR), enter "924" in Section D of the Education and Experience Test.**
130. **PeopleSoft - Student Admissions:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Student Admissions module. **To add Selective Certification for PeopleSoft - Student Admissions, enter "925" in Section D of the Education and Experience Test.**
131. **PeopleSoft - Student Financial Aid:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Student Financial Aid module. **To add Selective Certification for PeopleSoft - Student Financial Aid, enter "926" in Section D of the Education and Experience Test.**
132. **PeopleSoft - Student Financials:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Student Financials module. **To add Selective Certification for PeopleSoft - Student Financials, enter "927" in Section D of the Education and Experience Test.**
133. **PeopleSoft - Student Records:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Student Records module. **To add Selective Certification for PeopleSoft - Student Records, enter "928" in Section D of the Education and Experience Test.**
134. **PeopleSoft - Supply Chain Management (SCM):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Supply Chain Management module.

**To add Selective Certification for PeopleSoft - Supply Chain Management (SCM), enter "929" in Section D of the Education and Experience Test.**

135. **PeopleSoft - Talent Acquisition Management (TAM):** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Talent Acquisition Management (TAM) module. **To add Selective Certification for PeopleSoft - Talent Acquisition Management (TAM), enter "930" in Section D of the Education and Experience Test.**
136. **PeopleSoft - Travel and Expenses:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Travel and Expenses module. **To add Selective Certification for PeopleSoft - Travel and Expenses, enter "931" in Section D of the Education and Experience Test.**
137. **PeopleSoft - Upgrade Assistant:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - Upgrade Assistant module. **To add Selective Certification for PeopleSoft - Upgrade Assistant, enter "932" in Section D of the Education and Experience Test.**
138. **PeopleSoft - XML/BI Publisher:** At least two (2) years of satisfactory, full-time experience in the management or administration of PeopleSoft - XML/BI Publisher module. **To add Selective Certification for PeopleSoft - XML/BI Publisher, enter "933" in Section D of the Education and Experience Test.**
139. **PeopleSoft Application Development:** At least two (2) years of satisfactory, full-time experience with developing, administering, supporting and enhancing PeopleSoft application modules including identifying, implementing and maintaining custom applications based on analysis of business owner needs; analyzing, identifying and implementing requested upgrades, enhancements, and changes within respective PeopleSoft pillars. The experience **must** include, but not limited to: Application Designer, Application Engine, PeopleTools, PeopleCode, PeopleSoft Integration Broker, SQR, Change, Assistant, DataMover, Component Interface, Process Schedule, PeopleSoft Portal, EPM, web server applications, Oracle relational database management systems and SQL. **To add Selective Certification for PeopleSoft Application Development, enter "934" in Section D of the Education and Experience Test.**
140. **PeopleSoft IT Security:** At least two (2) years of satisfactory, full-time experience managing, developing, maintaining and executing security administration processes and procedures for PeopleSoft application security. PeopleSoft IT security experience will include but not limited to the following PeopleSoft pillars: Human Capital Management (HCM), Campus Solutions, Financials, Enterprise Planning Module (EPM), Reporting Financials, and/or Reporting HCM. Experience will also encompass development and maintenance of PeopleSoft application security, while operating and maintaining application security in a production environment for functional areas. **To add Selective Certification for PeopleSoft IT Security, enter "935" in Section D of the Education and Experience Test.**
141. **PeopleSoft Training:** Successful and verifiable completion of at least one (1) course from a PeopleSoft authorized learning partner. **To add Selective Certification for PeopleSoft Training, enter "936" in Section D of the Education and Experience Test.**
142. **PeopleTools:** At least two (2) years of satisfactory, full-time experience with PeopleTools to build, deploy, and maintain PeopleSoft applications. The experience must include developing new applications and/or customizing existing applications using development, administration, analytic, integration and lifecycle management tools. **To add Selective Certification for PeopleTools, enter "937" in Section D of the Education and Experience Test.**
143. **PeopleTools Training:** Successful and verifiable completion of comprehensive training in PeopleTools from Oracle or an Oracle authorized education partner. **To add Selective Certification for PeopleTools Training, enter "938" in Section D of the Education and Experience Test.**
144. **PMI Certified Associate in Project Management (CAPM) Certification:** A valid certification as a Certified Associate in Project Management (CAPM) from the Project Management Institute (PMI). **To add Selective Certification for PMI Certified Associate in Project Management (CAPM) Certification, enter "CAP" in Section D of the Education and Experience Test.**
145. **PMI Program Management Professional (PgMP) Certification:** A valid Program Management Professional (PgMP) certification from the Project Management Institute (PMI). **To add Selective Certification for PMI Program Management Professional (PgMP) Certification, enter "591" in Section D of the Education and Experience Test.**
146. **Project Management Professional (PMP) Certification:** A valid Project Management Professional (PMP) certification from the Project Management Institute (PMI). **To add Selective Certification for Project Management Professional (PMP) Certification, enter "PMP" in Section D of the Education and Experience Test.**

147. **Red Hat Certified Engineer (RHCE) Certification:** A valid Red Hat Certified Engineer (RHCE) certification from Red Hat. **To add Selective Certification for Red Hat Certified Engineer (RHCE) Certification, enter "605" in Section D of the Education and Experience Test.**
148. **Red Hat Certified Specialist in Virtualization Certification:** A valid Red Hat Certified Specialist in Virtualization Certification from Red Hat. **To add Selective Certification for Red Hat Certified Specialist in Virtualization Certification, enter "939" in Section D of the Education and Experience Test.**
149. **Red Hat Certified System Administrator (RHCSA) Certification:** A valid Red Hat Certified System Administrator (RHCSA) Certification from Red Hat. **To add Selective Certification for Red Hat Certified System Administrator (RHCSA) Certification, enter "603" in Section D of the Education and Experience Test.**
150. **ServiceNow Development:** At least two (2) years of satisfactory, full-time experience in analysis, design, development, implementation and maintenance of ServiceNow-based applications and environments. **To add Selective Certification for ServiceNow Development, enter "61M" in Section D of the Education and Experience Test.**
151. **ServiceNow Training:** Successful and verifiable completion of at least one (1) course from a ServiceNow authorized learning partner. **To add Selective Certification for ServiceNow Training, enter "940" in Section D of the Education and Experience Test.**
152. **Software Architecture Professional Certification:** A valid Software Architecture Professional certification from Software Engineering Institute (SEI). **To add Selective Certification for Software Architecture Professional Certification, enter "61Q" in Section D of the Education and Experience Test.**
153. **SolarWinds:** At least two (2) years of satisfactory, full-time experience installing SolarWinds suite, including but not limited to SAM, NPM, NCM, LEM and patch manager. The experience should include, but is not limited to: implementation of a large number of devices into the different suites of SolarWinds, setup and configuration of alerting policies for large scale environments, architect monitoring solutions, troubleshoot and collaborate with support to resolve issues, and ensure devices are discovered and removed as needed in topology and dashboards. **To add Selective Certification for SolarWinds, enter "941" in Section D of the Education and Experience Test.**
154. **SQL DBA:** At least two (2) years of satisfactory, full-time experience in Microsoft SQL Server Administration and Development. **To add Selective Certification for SQL DBA, enter "718" in Section D of the Education and Experience Test.**
155. **Storage Engineering:** At least two (2) years of satisfactory, full-time experience in Storage Area Network design, configuration and administration, including technical knowledge of major storage platforms and switches, and OS environments including Windows, UNIX and Linux. **To add Selective Certification for Storage Engineering, enter "SAN" in Section D of the Education and Experience Test.**
156. **Storage Engineering - Network Attached Storage (NAS):** At least two (2) years of satisfactory, full-time experience in Network Attached Storage (NAS) design, configuration and administration, including technical knowledge of major storage platforms and switches, and OS environments including Windows, UNIX and Linux. **To add Selective Certification for Storage Engineering - Network Attached Storage (NAS), enter "942" in Section D of the Education and Experience Test.**
157. **Storage Engineering - Storage Area Network (SAN):** At least two (2) years of satisfactory, full-time experience in Storage Area Network (SAN) design, configuration and administration, including technical knowledge of major storage platforms and switches, and OS environments including Windows, UNIX and Linux. **To add Selective Certification for Storage Engineering - Storage Area Network (SAN), enter "943" in Section D of the Education and Experience Test.**
158. **Subversion Administration:** At least two (2) years of experience maintaining Subversion for a collection of applications and supporting deployments of code through the SDLC process. **To add Selective Certification for Subversion Administration, enter "944" in Section D of the Education and Experience Test.**
159. **Systems Security Certified Practitioner (SSCP) Certification:** A valid Systems Security Certified Practitioner (SSCP) certification from (ISC)<sup>2</sup>. **To add Selective Certification for Systems Security Certified Practitioner (SSCP) Certification, enter "412" in Section D of the Education and Experience Test.**
160. **The Open Group Certification:** A valid Open Group Architecture Framework (TOGAF) certification or a Certified Architect (CA) certification from The Open Group. **To add Selective Certification for The Open Group Certification, enter "727" in Section D of the Education and Experience Test.**

161. **Tumbleweed Administrator:** At least two (2) years of satisfactory, full-time experience administering, supporting and upgrading Tumbleweed file transfer software. **To add Selective Certification for Tumbleweed Administrator, enter "945" in Section D of the Education and Experience Test.**
162. **UNIX Server Administration:** At least two (2) years of satisfactory, full-time experience in UNIX System administration; in-depth installation, configuration, administration and tuning enterprise class servers; performing system administration in Solaris 8, 9, 10 platforms; in large scale data center operations support function. **To add Selective Certification for UNIX Server Administration, enter "946" in Section D of the Education and Experience Test.**
163. **User Experience Design Management:** At least two (2) years of satisfactory, full-time experience working on software interaction design (also called user experience design or information architecture) and graphic/visual design using communication and visual design software (e.g., OmniGraffle, Visio, Adobe Creative Cloud, Microsoft Office, Apple productivity applications); front-end coding (e.g., HTML5, CSS3, JS, JQuery); and Agile and Waterfall software development methodologies. **To add Selective Certification for User Experience Design Management, enter "730" in Section D of the Education and Experience Test.**
164. **Video and Photo Editing Developer:** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance and enhancement of video production and photo editing software. Examples of software include but are not limited to: Photoshop, Final Cut Pro X, Adobe Premiere, and Lightroom. **To add Selective Certification for Video and Photo Editing Developer, enter "74B" in Section D of the Education and Experience Test.**
165. **Virtualization Engineering:** At least five (5) years of satisfactory, full-time experience in virtualization technologies, including but not limited to: vSphere 4.x, 5.x & 6.x, vRA, vROPS, VCO, NSX, Converged Network Architectures, 10 GB, NFS and Cisco Nexus (1k,2k,5k,7k). **To add Selective Certification for Virtualization Engineering, enter "74C" in Section D of the Education and Experience Test.**
166. **VMware Certified Professional (VCP) Certification:** A valid VMWare Certified Professional (VCP) certification from VMware. **To add Selective Certification for VMWare Certified Professional (VCP) Certification, enter "750" in Section D of the Education and Experience Test.**
167. **VMWare Training:** Successful and verifiable completion of at least one (1) course from a VMWare authorized learning partner. **To add Selective Certification for VMWare Training, enter "947" in Section D of the Education and Experience Test.**
168. **Web Design:** At least two (2) years of satisfactory, full-time experience in web design, photo and graphics editing, user experience design, user interaction design, and information architecture design, responsive web design, HTML5 and CSS3. **To add Selective Certification for Web Design, enter "WDE" in Section D of the Education and Experience Test.**
169. **Windows Systems Administration:** At least five (5) years of satisfactory, full-time experience in Windows Administration. The experience **must** include the administration and management of large physical and virtual Microsoft Windows environment, including file servers, print servers, web servers, and other servers; experience with Active Directory objects including domain controllers, users, groups, and GPOs. The experience should include, but is not limited to: deployment and updating physical and virtual servers; monitoring and troubleshooting system issues, installing and managing software for anti-virus, backup, monitoring, and other required Microsoft or third-party applications; developing, maintaining, and following systems policies, procedures, documentations, and diagrams; maintaining, testing, and executing plans for disaster recovery and business continuity; supporting ticket and email resolutions; providing consultation and technical guidance to end users and represent the team during meetings, discussions, and projects. **To add Selective Certification for Windows Systems Administration, enter "792" in Section D of the Education and Experience Test.**

**The above Selective Certification requirements may be met at anytime during the duration of the list.** If you meet this requirement at some future date, please submit a request by mail to: DCAS Bureau of Examinations - Exam Development Group, 1 Centre Street, 14th Floor, New York, NY 10007. Please include the examination title and number, your social security number, and the Selective Certification you are requesting on your correspondence.

**List Termination:**

The eligible list resulting from this examination will be terminated one year from the date it is established, unless extended by CUNY.

**Application Receipt:**

You will be emailed a receipt immediately after you have applied for the examination. If you do not receive this receipt, contact DCAS at [OASys@dcas.nyc.gov](mailto:OASys@dcas.nyc.gov). Include the last four digits of your social security number or the OASys confirmation number and the examination number and title in your email.

**Concurrent Examination:**

This examination is for positions with The City University of New York (CUNY) only. If you would like to apply for Computer Systems Manager in New York City agencies you **must** submit a separate application and fee for Exam. No. 9011 from October 3, 2018 through October 23, 2018.



**PENALTY FOR MISREPRESENTATION:**

Any intentional misrepresentation on the application or examination may result in disqualification, even after appointment, and may result in criminal prosecution.

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**The General Examination Regulations of the Department of Citywide Administrative Services (DCAS) apply to this examination and are part of this Notice of Examination. They are posted at [nyc.gov/dcas](http://nyc.gov/dcas) and copies are available at the DCAS Computer-based Testing & Applications Centers.**

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**For information about other exams, call 212-669-1357.  
Internet: [nyc.gov/dcas](http://nyc.gov/dcas); for CUNY: [cuny.edu](http://cuny.edu)**