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General Questions

What is the SANS Technology Institute?

The SANS Technology Institute is a master's level graduate school focused exclusively on cybersecurity degree programs and research. It was founded in 2005 as an independent subsidiary of the SANS Institute, with its own Board of Directors, Faculty, staff, and programs. The SANS Technology Institute aspires to be the preeminent graduate institution translating contemporary information security practice and scholarship into effective educational experiences.

What degrees are offered by the SANS Technology Institute?

The SANS Technology Institute is accredited to offer master's degrees and post-baccalaureate certificates. It is authorized to grant Master of Science degrees in Information Security Engineering (MSISE) and Information Security Management (MSISM), and to grant three graduate certificates: Cybersecurity Engineering Core, Penetration Testing & Ethical Hacking, and Incident Response. These are all described in greater detail below.

What is the SANS Institute?

The SANS Institute (www.sans.org) is the oldest and by far the largest and most trusted research and cybersecurity training organization in the world. Since 1989, the SANS Institute has trained over 120,000 information security professionals, including the leaders of cybersecurity for the biggest and most important government agencies, defense institutions, and commercial entities – from the world's largest banks and technology companies to healthcare organizations and power companies.

Is the SANS Technology Institute accredited?

The SANS Technology Institute is accredited by the Middle States Commission on Higher Education (3624 Market Street, Philadelphia, PA 19104, 267-284-5000), which is the institutional agency recognized by the U.S. Secretary of Education to conduct accreditation activities for Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, and the U.S. Virgin Islands, including distance and correspondence education programs offered at those institutions. The Middle States Commission on Higher Education is also recognized by the Council for Higher Education Accreditation.

What is the importance of regional accreditation?

Accreditation by the Middle States Commission on Higher Education is an expression of confidence in an institution's mission and goals, its performance, and its resources. Accreditation is typically a prerequisite condition for corporate tuition reimbursement plans or other funding sources. Because of the strength of the peer review process and the quality standards required of members, many employers and consultants consider it a best practice to offer reimbursement only when the educational institution is regionally accredited, rather than just nationally accredited, and many institutions will only accept credit for transfer when the credits were earned at an institution that is also regionally accredited.

SANS Technology Institute

Who are the faculty of the SANS Technology Institute?

The approximately fifty members of the [teaching faculty](#) of the SANS Technology Institute are some of the most important practitioner-scholars in the cybersecurity field today. Most faculty spend the majority of their time active in their roles as trusted advisors to the White House, government agencies, and major corporations, or working at senior-level information security jobs.   They are the authors of authoritative books, they engage in information security research, speak at conferences to share their work, and they are called in for many of the most high-profile incidents – in short, they have the front-line, in-the-trenches experience doing the types of jobs that you will seek or be required to do or oversee as a graduate. As importantly, new faculty are not appointed until they have proven themselves as highly rated teachers in a multi-year competition to become a SANS Certified Instructor. Many experts cannot teach, but the SANS faculty development process ensures that the faculty are gifted teachers as well as being exceptional security technologists.

Engaging in the Programs

Are courses taken live in classrooms, online, or both?

Students enrolled in a SANS Technology Institute graduate program may generally choose a mix of live and online instruction, allowing enormous flexibility to manage the timing, locations, and travel costs associated with a course of studies. A majority, though not 100%, of the master's courses may be completed at-a-distance - some elements of the program require a graduate student to be present at a live event, graded by faculty, typically at least once a year. It is possible for a student to complete all of the requirements of the certificate programs at-a-distance. Generally, most students desire to maximize the opportunity for live instruction, but the program accommodates different preferences. Most technical courses in the program may be taken either at events in live classrooms or online; assessments and exams are frequently taken at proctored locations near where you live; presentations are graded both live and virtually; some projects require you to work in virtual groups, while another requires that two or more people are physically present for a 24-hour period.

Do you have a campus? Where do graduate students receive live classroom instruction?

The SANS Institute conducts more than 200 events ("Residential Institutes") at locations held throughout the world. There are many choices for the specific time, date, and location for live event attendance.   At any given Residential Institute, hundreds of individuals come together for up to a week and a half of intense, immersive training that spans cyber defense, penetration testing, forensics and incident response, secure software development, information security auditing, and many other topics. These events allow students to interact with the leaders in the field as they teach courses, lead labs and simulation exercises, and present their most current research and findings at evening briefings. Residential Institutes are a unique setting for learning, networking, and development. When a SANS graduate student needs to take one of these SANS Institute classes, he or she will be registered for the class at the desired Residential Institute upon registering for the associated course in their master's program. The student will then travel to the associated Residential Institute and take the class as a SANS graduate student. Afterwards, the graduate student continues to work on the associated exam or assessment, research paper or project, until the course requirements are completed, often in consultation with course faculty.

Can I take training from SANS online and at-a-distance?

When a student needs to take a SANS Institute class incorporated into a graduate course, they frequently choose to take it online and at-a-distance through our highly-rated OnDemand, vLive & Simulcast delivery formats. To mitigate constrained budgets or simply to fit a busy professional's schedule, SANS Institute classes may be accessed through these systems, where you see the same slides used in our classes and hear the same highly-rated instructors as they teach. For the OnDemand system, where the faculty instruction is recorded and not live, subject matter experts are available virtually to answer any questions. Because of the density of new information taught in our classes, many students actually prefer this format because they are able to 'replay' certain sections that otherwise might have been difficult to follow live. At prescheduled times, SANS classes are also available via vLive (virtual live), a format in which live classes are held over the internet, typically between 7-10pm ET on Tuesdays and Thursdays. During a vLive class, the instructor and all participants are online simultaneously, allowing for more direct interaction between our students and instructors, even though they remain in different locations.

How do the online classes compare to those at the live events?

Whether live or online, SANS' rigorous ratings and feedback system confirms that we maintain a superior student experience and consistently high levels of student satisfaction in all these modalities. Furthermore, SANS is unique in our ability to prove that there are no statistically significant differences in the tested learning outcomes of students who take our courses in a live setting versus those who take them via OnDemand (time delayed) or vLive (synchronous).   We encourage you to evaluate free demonstrations of OnDemand and vLive as you consider and explore the SANS master's program.

How does the SANS Technology Institute maintain such high quality?

Nearly all of SANS instruction is paid for by the very employers and government agencies that need a more skilled and capable workforce, requiring year after year that SANS classes justify the time, offer a high return on investment, and clearly impact the information defenses of those sponsoring organizations. Like our most successful clients, the SANS Institute is dedicated to excellence and continuous improvement. We constantly seek feedback to measure the value and applicability of our training, both the content of courses and the effectiveness of our SANS faculty. A rigorous, quantified, and ongoing quality measurement process driven by the ratings and comments of our students ensures that our instruction has currency in the constantly changing threat landscape, and that our instructors are both highly engaging in their class presentations and active, valued practitioners in the field.

The Master's Programs

What are the key qualities of the master's degree programs?

The SANS Technology Institute degree programs are comprised of world-class, cutting-edge technical courses, updated as often as three times per year, that establish and specialize your skills and develop you into an organizationally effective leader of information security. Our programs offer personal interaction with teaching faculty that have an unparalleled reputation for industry leadership and who bring the

material to life. Simulations and group projects teach students to write, present, and persuade effectively, and are often focused on employer-sponsored topics to align your work with your studies. The programs are designed for full-time, working information technology or information security professionals, with the flexibility to attend courses when and where you need them, either in live classrooms with faculty or online from home. Lastly, SANS is broadly known throughout the industry for the quality of our educational programs, and a SANS degree augments a graduate's own reputation.

What is the program leading to the M.S. degree in Information Security Engineering?

The MSISE degree requires 36 credit hours of course work that spans core topics in information security engineering, advanced technical electives, and the management capabilities required for effective implementation. The curriculum is built in part on SANS classes, but the program also includes courses that were independently developed by SANS Technology Institute faculty and tailored to the goals of the master's program. Many courses in the program use GIAC certification exams as assessments of learning outcomes, and graduates of this degree program acquire more than seven GIAC certifications even before they graduate, including the GIAC Security Expert (GSE) certification, included as a capstone assessment. Applied research is emphasized, and master's students must produce several peer-reviewed research papers, present their research to faculty and peers at live events, and complete labs and simulations that ensure they possess mastery of the technical material and its use in the real world. You can learn more about the required and elective courses in the MSISE program at our website or by downloading the latest set of MSISE Course Descriptions.

What is the program leading to the M.S. degree in Information Security Management?

Similar to the MSISE degree, the MSISM program also requires 36 credit hours of course work. The core of the program is different in that it rebalances the focus on technical depth with an emphasis on the breadth of management, policy, and implementation topics. There are fewer elective choices in the MSISM degree program, but additional required courses covering topics in information security audit, as well as legal issues and policy. With a greater focus on communications skills, the Information Security Management program requires additional written research. You can learn more about the required and elective courses in the MSISM program at our website or by downloading the latest set of MSISM Course Descriptions.

How long does it take to complete the program?

The program is designed to take three years, on average, to complete. This timeline requires approximately 10 hours of work accomplished per week (again, on average, allowing for periods of more or less intense work). Over time, participation in the program is subject to a Satisfactory Academic Progress policy that requires students to complete at least eight (8) credit hours of work each year, consistent with the requirement that students complete the program within a maximum five years from the date of their matriculation.

Are there maximum time limits to complete individual courses?

Certain courses in the master's program have required maximum time limits. Typically, the requirements for a three or four credit course are expected to be completed by a student within four months of the class starting date, and must be completed within five months (subject to a failing grade). These time limits are sometimes different from what GIAC applies for test taking or completing a Gold paper, and in these cases the time limits of the master's program are what applies, regardless of the 'standard' messaging from SANS or GIAC.

Are there semesters and trimesters, or is the program 'open enrollment'?

The open enrollment nature of the program is another instance of flexibility. Accepted students may apply to and be accepted into the program at any time during the year, and each individual then works with an appointed academic advisor to schedule a plan of studies each twelve months. Students often match the times and locations of Residential Institutes with their work and personal schedules, and then plan which additional courses they'll take at-a-distance in order to maintain satisfactory academic progress.

The Post-baccalaureate Certificate Programs

What are post-baccalaureate certificates?

Post-baccalaureate certificates are self-contained credentials awarded after the completion of a program of studies designed to achieve a particular set of learning outcomes. They allow a) people who cannot otherwise engage in a full master's program engage in a subset of coursework leading to a more focused but shorter set of goals, and b) allow those who might already have a master's or other advanced degree to engage in a specialized set of studies to augment their knowledge base. As programs of study from an accredited institution, certificate programs (like master's degree programs) generally qualify for corporate tuition reimbursement plans and/or veteran's benefits.

What is the Cybersecurity Engineering Core Certificate Program?

The Cybersecurity Engineering Core Certificate program is built from the three courses at the technical core of the master's degree program in Information Security Engineering. It spans from an introductory survey of fundamental information security tools and techniques to a more advanced study of the inter-relationships between offensive (attack/penetration testing) and defensive (intrusion detection and incident response) information security best practices. Courses in the program familiarize the student with essential tools and techniques used in cybersecurity engineering, teach the student various cyber attack techniques which may be employed in penetration testing and incident response, and reinforce a practitioner's ability to detect attacks through packet analysis and intrusion detection. Student capabilities are reinforced through multiple hands-on labs and network simulations.

What is the Penetration Testing & Ethical Hacking Certificate Program?

As an independent offering, the graduate certificate in Penetration Testing & Ethical Hacking is a highly technical, 13 credit hour program with a cohesive and progressive set of learning outcomes focused on developing the student's capability to discover, analyze, and understand the implications of information

security vulnerabilities in systems/networks/applications in order to identify solutions before others exploit these flaws. The program begins with ISE 5200, our core course on Hacking Techniques that requires the student to take SANS SEC 504 and achieve the GCIH certification, while also succeeding at the hands-on NetWars Continuous simulation.   Students then advance through three additional advanced graduate courses that deepen their capabilities in the penetration testing of wired and wireless networks, web application and servers, and mobile devices.

What is the Incident Response Certificate Program?

The graduate certificate in Incident Response is a highly technical, 13 credit hour program with a cohesive and progressive set of learning outcomes focused on developing the student's capability to manage both a computer and network-based forensics investigation as well as the appropriate incident responses. Like the Penetration Testing & Ethical Hacking Certificate program, the Incident Response program also begins with ISE 5200, our core course on Hacking Techniques that requires the student to take SANS SEC 504 and achieve the GCIH certification, while also succeeding at the hands-on NetWars Continuous simulation. However, the remaining three courses in this program allow 'offense to inform defense', and students engage in three elective courses from the master's degree program that bolster their knowledge and hands-on capabilities in advanced computer and network forensics, and malware-reverse engineering.

Application and Tuition Questions – Master's Programs

What is the admissions process for the master's programs?

The admissions process for the master's programs begins when you submit a completed application, which requires you to:
- ✓ Complete the basic information request on the Application Information Form.
- ✓ Submit a copy of your recent resume.
- ✓ Have your official undergraduate or graduate transcripts sent to us (Evaluated by the World Education Services if from a non-US school).
- ✓ Write an Outcome Statement and Leadership Essay.
- ✓ Create a brief video presentation (see instructions).
- ✓ Submit a letter of recommendation from your employer, or customers if you are a consultant.
- ✓ Submit all of the above via email to admissions@sans.edu or, as appropriate, to:
  Master's Program Admissions
  SANS Technology Institute
  PO Box 130957
  Dallas, TX 75313

Once the application is deemed complete, the admissions committee reviews the candidate's application and compares it to that of former entrants and other applicants. This review process typically is completed within 30 days. If the applicant is invited to matriculate, they will then engage with a member of the faculty or academic advisor in order to plan their first year's course of studies and confirm that they have appropriate time and funding expectations. When this planning process is complete, the student is formally enrolled in the program.

What is the Application Fee for the master's program?

The application fee is $100, and is non-refundable. Applicants may either pay by credit card or mail their check to the following address (SANS Institute, 8120 Woodmont Ave, Ste. 310, Bethesda, MD, 20814), together with a copy of their application form.

What are the requirements or prerequisites for admission?

There are several requirements for admission, including that you must hold a bachelor's degree with at least a 2.8 GPA, and you must have a minimum of 12 months of work experience related to information technology, information security, or audit. The master's program requires excellent written and oral communications skills, so you must either be a native English speaker or be able to meet the requirements for non-native English speakers (see below).

What is the current cost per credit hour?

The cost per credit hour is currently $1,250, subject to change with a three-month notice period.

What is the total cost of the program?

Over 36 credit hours, the total cost of the program would be $45,000, plus certain fees, the cost of travel, and the cost of the capstone exams (currently, these are $2,098). Fees include a $100 application fee and other fees that might be associated with challenging qualifying exams in lieu of taking the full courses (waivers reduce the total cost of the program by the amount of the cost of the course which is waived).

How do I register and pay tuition for the program?

Graduate students pay for the individual courses they take as they register for them. For example, ISE 5100 Enterprise Security Essentials is a 4 credit hour course. A student would therefore pay $5,000 (4 x $1,250) when registering for this course, which would then cover the costs associated with enrolling in SANS Institute class SEC 401 either live or at-a-distance, scheduling and taking the GIAC GSEC certification exam, and the costs of advising and peer-review grading of the required research paper (in this case, a GIAC Gold Paper). The minimum academic progress required would indicate that a typical student pays $10,000 per year, while completing the program in three years would typically average $15,000 per year.

Once admitted, how quickly do I need to start the program?

Within sixty days of matriculation, a new student must register and pay for a minimum of three credit hours, commensurate with the academic plan they established with a member of the faculty or their academic advisor.

Do SANS Institute classes and GIAC exams I've taken in the past apply to the program?

If you've taken relevant SANS Institute classes in the past, or if you currently hold relevant GIAC certifications, you may receive waivers for related course elements that will afford you advanced standing in the program upon matriculation. Because of the ever-changing nature of the information security techniques and associated threats, SANS Institute class experiences that are more than two years old or GIAC exam scores that are more than three years old will not typically qualify for a waiver in the master's program, in order to ensure new students have current skills and capabilities. The determinations of whether and how these apply does require a more in-depth evaluation of the specifics for each individual than is described here. To evaluate how your own past experiences may apply, download the Guide to Waivers found on our website.

Application & Tuition Questions – Certificate Programs

What is the admissions process for the Post-baccalaureate Certificate programs?

Before you complete the application materials, please confirm you meet the criteria required of all applicants:
- You have earned a bachelor's degree from a regionally accredited college or university (or the international equivalent).
- You have at least 12 months of professional work experience in information technology, information security, or audit.

The following are the required steps to complete your application to enroll in a graduate certificate program of the SANS Technology Institute:

1. Fill out the Graduate Certificate Program - Application Form, indicating which post-baccalaureate certificate you seek. Note that you may request waivers only for graduate course components (SANS training/GIAC exam/gold paper) from within your selected program. See below.
2. Update your resume to include your current position.
3. If you seek to enroll in the Cybersecurity Engineering Core graduate certificate program, write a single-page, single-spaced, typed "Outcomes Statement" Essay describing how the certificate program will fit within your career development. We will evaluate your "Outcomes Statement" primarily to evaluate the quality of your writing, relative to the requirements in the Cybersecurity Engineering Core program for two 15-20 page research project/papers.
4. Submit the above items to **admissions@sans.edu**
5. Request that your college/university submit official transcripts directly to:
   > The SANS Technology Institute
   > Attn: Graduate Certificate Program Admissions
   > PO Box 130957
   > Dallas, TX 75313

*International Students must first have their transcripts evaluated by World Education Services.

After you submit your completed application, you will receive a notification via email when we establish that your application is complete. Typically, we will be able to inform you of your admissions status within 30 days.

How do prior SANS Institute classes and GIAC exams apply to the Certificate programs?

As an accredited institution, the SANS Technology Institute is privileged to offer post-baccalaureate certificates. However, because of that accreditation, there are limits on the amount of prior work that was done prior to being enrolled in a program from an accredited institution. This is typically set at 25% of total credit hours. Since any past or existing credentials are fully valid, these new certificate programs do not take anything away, but they do add a new path for those interested in a further academic credential.

Within and respecting these limits, the following waivers may be applied to the requirements of any certificate program relative to prior SANS Institute classes taken or GIAC exams passed:

1. Class waiver: If an applicant has taken a SANS Institute class from a member of our faculty within the past two years, but has not yet taken the associated GIAC exam, the requirement to take this class when enrolled in the certificate program will be waived (a "class waiver"). A student may qualify for up to two class waivers in a certificate program. The student will need to complete all other course component requirements for each graduate course to which a class waiver is applied in order to complete the course and earn credit.
2. GIAC exam waiver: If an applicant has, within the past three years, passed a GIAC exam relevant to the certificate program, then the requirement to take both that GIAC exam and the associated SANS Institute class will be waived. Only one GIAC exam waiver may be granted per certificate program. The student will need to complete any remaining course components required by the graduate course to which a GIAC exam waiver is applied in order to complete the course and earn credit. If a GIAC exam waiver is granted, no other waiver may be granted for a certificate program.
3. NetWars Continuous waiver: If, within the past three years, a student has both passed the GCIH certification exam and scored sufficiently high on the NetWars Continuous simulation, that student will qualify for a waiver from taking ISE 5200 in their certificate program. If a NetWars Continuous waiver is granted, no other waiver may be granted.
4. Gold Paper waiver: If a student has successfully written and published a GIAC Gold paper associated his or her GSEC or GCIA, that student will qualify for a waiver from taking either ISE 5100 or ISE 5400. Only one Gold Paper waiver may be granted for a certificate program, and if granted, no other waiver may be granted.

Tuition and Funding Questions – General

Can I utilize my company's tuition reimbursement benefit?

The SANS Technology Institute is regionally accredited, and this status typically qualifies our programs for inclusion in corporate tuition reimbursement plans. Each company's policies and practices are different, and you should check with your company's HR department or other authoritative source to determine if you would be eligible for tuition reimbursement once enrolled in our master's program.

Can I utilize 'GI Bill' funds to pay for my education?

The SANS Technology Institute is applying to enable current and prospective students to employ their veteran's benefits for purposes of funding their SANS Technology Institute education. Though we are regionally accredited, the rules governing approval for these benefits distinguish between public, non-profit schools and private, for-profit schools, and require us to be reviewed and approved in each U.S. State

where a student seeks to attend a class (and not specifically where they reside).   We are applying first in the State of Maryland, which if approved would enable our students to use their Veteran's benefits to pay for all courses taken via our at-a-distance mechanisms (e.g. OnDemand, vLive, and Simulcast), as well as their attendance at SANS Institute classes held in the State of Maryland (e.g. classes at SANSFIRE 2014, June 19-30). If this is an important benefit to you, please let us know at info@sans.edu so that we can inform you of any changes in our status, if and when we are approved.

Can I apply for and use federal student loans to pay for my education?

The SANS Technology Institute does not participate in any federal Title IV student aid or other aid/loan programs. Most graduate students are either reimbursed by their employers or are self-funded.

Questions for non-US citizens or non-native English speakers

Do I need to be an American citizen in order to apply to the Master's program?

We are an international program, so you do not need to be an American citizen nor do you need security clearance. We welcome students from all over the world.

How do I present non-US Transcripts for an application?

When presenting a non-US transcript for admissions, candidates must first have their transcripts evaluated by World Education Services before completing their application.

What if English is not my Native Language?

Admission to the master's degree programs at the SANS Technology Institute requires that applicants are not merely proficient, but fluent, in standard written and spoken English. Certain courses include long-form research papers – written and graded in English – and public, oral presentations at SANS conferences where the effective communication of often subtle technical and non-technical topics is critical to success. Generally, because we are not equipped to accommodate papers or presentations that are written in a foreign language, we typically dissuade non-native speakers from applying when they are notably shy of fluency. We wish that we were able to offer our programs in different languages, but our faculty is made up of primarily native English speakers, which precludes us from working with students who may in all other respects be a good match.

The Test of English as a Foreign Language (TOEFL) is required for applicants whose native language is not English. We require a minimum score requirement of 100 (Internet-based test) over-all with each of the sub-categories (Reading, Listening, Speaking, Writing) preferred to be at a minimum of 25 each. The test scores must be sent to us directly by the testing agency.

IELTS can be used as a substitute for TOEFL. We require a minimum score requirement of 7.5 over-all with each of the sub-categories in IELTS preferred to be at a minimum of 7.5 each. IELTS scores must be sent to us directly by the testing agency.

We ask for two essays as part of the application process to supplement the submission of TOEFL scores in part because we have found that TOEFL scores are not always consistent with graduate-level writing skills required by our program. We encourage non-native English speakers to consider the strength of their written English skills as well as their oral communication capabilities.

Learning More about the SANS Master's Programs

Where can I get more information?

Please learn more at www.sans.edu. If you are unable to find an answer to a question, please inquire via email to info@sans.edu or admissions@sans.edu.