



Master's Degree M.S. in Information Security Engineering

Example Three-Year Academic Plan

YEAR 1

Graduate Course #	Course Name	SANS Class	Course Assessments	Course Term (Max.)	Credit Hours
ISE 5101	Enterprise Information Security	SEC 401	GSEC Exam	3 Months	3
ISE 5201	Hacking Techniques & Incident Response	SEC 504	GCIH Exam	3 Months	3
ISE 5300	Building Security Awareness	MGT 433	Written Security Awareness Plan	45 Days	1
ISE 5401	Advanced Network Intrusion Detection & Analysis	SEC 503	GCIA Exam	3 Months	3
ISE 5600	IT Security Leadership Competencies	MGT 514 (Days 3-5)	Policy Writing Assignment	45 Days	1

YEAR 2

Graduate Course #	Course Name	SANS Class	Course Assessments	Course Term (Max.)	Credit Hours
ISE 5501	Technical Research & Communication Practicum	—	White Paper; Presentation	4 Months	3
ISE 6__	Elective	SANS Class	GIAC Exam	3 Months	3
ISE 5700	Situational Response Practicum	—	24-Hour Group Project; Report/Presentation	30 Days	1
ISE 5800	IT Security Project Management	MGT 525	GCPM Exam	3 Months	3
ISE 6__	Elective	SANS Class	GIAC Exam	3 Months	3
ISE 6300	NetWars Continuous Practicum	—	Core NetWars Continuous	2 Months	1

YEAR 3

Graduate Course #	Course Name	SANS Class	Course Assessments	Course Term (Max.)	Credit Hours
ISE 6001	Standards-based Implementation of Security	SEC 566	GCCC Exam	3 Months	3
ISE 5901	Advanced Technical Research & Communication Practicum	—	White Paper; Presentation	4 Months	3
ISE 6__	Elective	SANS Class	GIAC Exam	3 Months	3
ISE 6100	Security Project Practicum	—	30-Day Group Project; Paper	30 Days	1
N/A	MSISE Capstone	—	GSE (Exam; Two-day Hands-on Lab)	2 days	1

This plan serves as an example but is subject to change based on curriculum adjustments and student's coursework.

Degree Total: 36 Credits



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Elective Options (9 Credit Hours)

Graduate Course #	Course Name	SANS Class	Course Assessments
ISE 6215	Advanced Security Essentials	SEC 501	GCED
ISE 6230	Securing Windows with the Critical Security Controls	SEC 505	GCWN
ISE 6235	Securing Linux/Unix	SEC 506	GCUX
ISE 6240	Continuous Monitoring & Security Operations	SEC 511	GMON
ISE 6315	Web App Penetration Testing & Ethical Hacking	SEC 542	GWAPT
ISE 6320	Network Penetration Testing & Ethical Hacking	SEC 560	GPEN
ISE 6325	Mobile Device Security	SEC 575	GMOB
ISE 6330	Wireless Penetration Testing	SEC 617	GAWN
ISE 6350	Automating Information Security with Python	SEC 573	GPYC
ISE 6360	Advanced Penetration Testing	SEC 660	GXPN
ISE 6420	Computer Forensics Investigations – Windows	FOR 500	GCFE
ISE 6425	Adv. Computer Forensic Analysis & Incident Response	FOR 508	GCFA
ISE 6440	Adv. Network Forensics & Analysis	FOR 572	GNFA
ISE 6445	Cyber Threat Intelligence	FOR 578	GCTI
ISE 6450	Advanced Smartphone Forensics	FOR 585	GASF
ISE 6460	Malware Analysis & Reverse Engineering	FOR 610	GREM
ISE 6515	ICS/SCADA Security Essentials	ISE 410	GICSP
ISE 6520	ICS Active Defense & Incident Response	ICS 515	GRID
ISE 6525	Essentials for NERC Critical Infrastructure Protection	ICS 456	GCIP
ISE 6615	Defending Web Applications Security Essentials	DEV 522	GWEB
ISE 6715	Auditing Networks, Perimeters & Systems	AUD 507	GSNA
ISE 6720	Law of Data Security & Investigations	LEG 523	GLEG

Each elective course is 3 credit hours and has a course term of 3 months.