

SENG Specialization Updates for Summer 2024

The specializations available to Software Engineering students have changed (effective May 2024) to reflect the following new courses.

- [CSC424 - Computational Complexity](#)
- [SENG404 - Data Science for Software Engineering](#)
- [SENG457 - Quantum Algorithms and Software Engineering](#)
- [SENG477 - Safety and Assurance](#)

The current rules around specializations are [on our website](#).

<i>Specializations as of January 2024</i>	<i>Changes effective Summer 2024</i>		
<p data-bbox="219 619 950 646">– Data mining and analysis, artificial intelligence, and machine learning</p> <div data-bbox="219 661 950 1155"> <table border="0"> <tr> <td data-bbox="219 672 568 1155"> <p data-bbox="235 682 552 714">Group 1</p> <ul style="list-style-type: none"> ▪ CSC431 - Machine Learning Theory ▪ ECE470 - Artificial Intelligence, OR CSC421 - Introduction to Artificial Intelligence ▪ ECE485 - Data Analysis and Pattern Recognition ▪ SENG474 - Data Mining </td> <td data-bbox="568 672 950 1155"> <p data-bbox="609 682 909 714">Group 2</p> <ul style="list-style-type: none"> ▪ CSC402 - Systems for Massive Datasets ▪ CSC412 - Computing for Cognitive Augmentation ▪ CSC425 - Analysis of Algorithms ▪ CSC427 - Advanced Topics in Bioinformatics ▪ CSC428 - Computational Biology Algorithms ▪ CSC349A - Numerical Analysis ▪ CSC445 - Operations Research: Linear Programming ▪ CSC446 - Operations Research: Simulation ▪ ECE403 - Optimization for Machine Learning ▪ ECE471 - Computer Vision </td> </tr> </table> </div>	<p data-bbox="235 682 552 714">Group 1</p> <ul style="list-style-type: none"> ▪ CSC431 - Machine Learning Theory ▪ ECE470 - Artificial Intelligence, OR CSC421 - Introduction to Artificial Intelligence ▪ ECE485 - Data Analysis and Pattern Recognition ▪ SENG474 - Data Mining 	<p data-bbox="609 682 909 714">Group 2</p> <ul style="list-style-type: none"> ▪ CSC402 - Systems for Massive Datasets ▪ CSC412 - Computing for Cognitive Augmentation ▪ CSC425 - Analysis of Algorithms ▪ CSC427 - Advanced Topics in Bioinformatics ▪ CSC428 - Computational Biology Algorithms ▪ CSC349A - Numerical Analysis ▪ CSC445 - Operations Research: Linear Programming ▪ CSC446 - Operations Research: Simulation ▪ ECE403 - Optimization for Machine Learning ▪ ECE471 - Computer Vision 	<p data-bbox="982 609 1096 640">Group 2:</p> <ul style="list-style-type: none"> • Add <ul style="list-style-type: none"> ○ SENG404 ○ SENG457 ○ CSC424
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<p data-bbox="219 1186 950 1213">– Cybersecurity and privacy</p> <div data-bbox="219 1228 950 1491"> <table border="0"> <tr> <td data-bbox="219 1239 568 1480"> <p data-bbox="235 1249 552 1281">Group 1</p> <ul style="list-style-type: none"> ▪ CSC429 - Cryptography, OR ECE406 - Applied Cryptography ▪ ECE448 - Cyber-System Security ▪ SENG460 - Practice of Information Security and Privacy </td> <td data-bbox="568 1239 950 1480"> <p data-bbox="609 1249 909 1281">Group 2</p> <ul style="list-style-type: none"> ▪ CSC463 - Wireless and Mobile Networks ▪ CSC466 - Overlay and Peer-to-Peer Networking ▪ CSC467 - Switching, Network Traffic and Quality of Service ▪ ECE463 - Design and Analysis of Computer Networks </td> </tr> </table> </div>	<p data-bbox="235 1249 552 1281">Group 1</p> <ul style="list-style-type: none"> ▪ CSC429 - Cryptography, OR ECE406 - Applied Cryptography ▪ ECE448 - Cyber-System Security ▪ SENG460 - Practice of Information Security and Privacy 	<p data-bbox="609 1249 909 1281">Group 2</p> <ul style="list-style-type: none"> ▪ CSC463 - Wireless and Mobile Networks ▪ CSC466 - Overlay and Peer-to-Peer Networking ▪ CSC467 - Switching, Network Traffic and Quality of Service ▪ ECE463 - Design and Analysis of Computer Networks 	<p data-bbox="982 1176 1096 1207">Group 1:</p> <ul style="list-style-type: none"> • Add SENG477
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