

## CS (BS) Technical Track Form Academic Year 2021-2022

	Student Information					
Last Name		First Name				
GWID		GW Email	@gwmail.gwu.edu			
SEAS Major	Computer Science	Degree	B.S.			

As a student in the BS program, you must complete a technical track consisting of four courses (a minimum of 12 credits) as part of your degree requirements. You need to have your selections approved by your advisor (their signature is required below). A minimum of two of the four courses must be from the list on Page 2. All four must have CSCI 2113 as a prerequisite or within the prerequisite chain. For more information about technical track options and special rules, visit: https://www.cs.seas.gwu.edu/bachelor-science-technical-track-requirement-academic-years-2019-20-through-2021-22

	Technical Track Electives in Core Areas The two Core Area courses taken from the list on Page 2								
#	# Subject Course No. Course Title Credit Hrs Course In Progress Completed Course						Future Course		
1									
2									

	Other Technical Track Electives  Must have CSCI 2113 as a prerequisite or in the prerequisite chain. May be from the list on Page 2, if desired.								
# Subject Course No. Course Title Credit Hrs Course In Progress Cor					Course Completed	Future Course			
3									
4									

**Read before signing:** I have reviewed the requirements and I understand what I must do to complete these requirements. Any revisions must be approved in writing.

Required Signatures						
Student Signature				Date		
SEAS Faculty Advisor Signature		Last Name		Date		
CS Undergraduate Program Director Signature		Last Name		Date		

For Advising Office Use Only	

Submit forms to: SEAS Undergraduate Student Services and Advising seasadvising@gwu.edu

## Bachelor of Science Technical Track Requirement Academic Years 2019-20 through 2021-22

All students in the BS in computer science program (Academic Years 2019-20 through 2021-22) are required to take four technical courses (for a minimum of 12 credits) of computer science coursework for their technical track. Two of the four courses must be selected from the following list. We recommend that they both be taken from within the same subject area, but this is not necessary. The courses not from this list, generally, must have <u>CSCI 2113</u> as a prerequisite or within their prerequisite chain. The faculty advisor's documented approval is required before these latter two courses may be applied towards degree completion. Note that there is no requirement that all four courses be from the same general subject area.

Systems	<ul> <li>CSCI 6411 - Advanced Operating Systems</li> <li>CSCI 6421 - Distributed Systems</li> <li>CSCI 4431 or 6431 - Computer Networks</li> </ul>
Theory	<ul> <li>CSCI 4331 or 6331 - Cryptography</li> <li>CSCI 4364 or 6364 - Machine Learning</li> <li>CSCS 8331 Advanced Cryptography (and the 3907 version)</li> </ul>
AI	<ul> <li>CSCI 3907 Neural Networks Networks to be renamed CSCI 4366 Neural Networks and Deep Learning</li> <li>CSCI 3907 Big Data &amp; Analytics</li> <li>CSCI 4364 or 6364 - Machine Learning</li> <li>CSCI 4341 - Continuous Algorithms</li> <li>CSCI 4527 or 6527 - Introduction to Computer Vision</li> </ul>
Applications	<ul> <li>CSCI 6351 - Data Compression</li> <li>EMSE 6575 - Applied Machine Learning for Analytics</li> <li>CSCI 4554 - Computer Graphics</li> <li>CSCI 4237 - Software Design for Handheld Devices</li> </ul>
Security	<ul> <li>CSCI 3907 Usable Security and Privacy to be renumbered CSCI 4533 Usable Security and Privacy</li> <li>CSCI 4331 or 6331 - Cryptography</li> <li>CSCI 8331 Advanced Cryptography (and the 3907 version)</li> </ul>

https://www.cs.seas.gwu.edu/bachelor-science-technical-track-requirement-academic-years-2019-20-through-2021-22



## CS (BS) Non-Technical Elective Declaration Form Academic Year 2021-2022

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GWID		GW Email	@gwmail.gwu.edu				
SEAS Major	Computer Science	Degree	B.S.				

Each course listed on this form should be of 3 or more credits. A 6-credit course may be used across two slots if it qualifies for the slots, but credits may not be combined in any other manner.

	Humanities and Social Science Electives								
#	Requirement	Subject	Course No.	Course Title	Credit Hrs				
1	Humanities General Education Elective *								
2	Social Science General Education Elective *								
3	Social Science General Education Elective *								
4	Approved course from SEAS Humanities, Social Science or Non-Technical List **								
5	Approved course from SEAS Humanities, Social Science or Non-Technical List **								
6	Approved course from SEAS Humanities, Social Science or Non-Technical List **								
*	* University general education classes listed here: http://bulletin.gwu.edu/university-regulations/general-education/ ** SEAS Approved electives from Humanities, Social Science, or Non-Technical list								

As a student in the BS program, you must complete a non-technical track as part of your degree requirements. You need to declare your choice of topic area and have your selections approved by your advisor by signing this form. For more information and about track options and special rules, visit: <a href="https://www.cs.seas.gwu.edu/bachelor-science-curriculum-">https://www.cs.seas.gwu.edu/bachelor-science-curriculum-</a>

	Non-Technical Track Area						
#	Subject	Course No.	Course Title	Credit Hrs			
1							
2							
3							

academic-years-2019-20-through-2021-22.

Additionally, you must choose your Statistics and Linear Algebra electives and four (4) unrestricted/selected electives that must be approved by your faculty advisor. For more information about these electives visit: <a href="https://www.cs.seas.gwu.edu/bachelor-science-curriculum-academic-years-2019-20-through-2021-22">https://www.cs.seas.gwu.edu/bachelor-science-curriculum-academic-years-2019-20-through-2021-22</a>.

Statistics and Linear Algebra Electives					
#	Subject	Course No.	Course Title	Credit Hrs	
1					
2					

	Unrestricted/Selected Electives					
#	Subject	Course No.	Course Title	Credit Hrs		
1						
2						
3						
4						

NOTE: Please review all information in the University Bulletin and get approval from your faculty advisor before selecting unrestricted electives: <a href="http://bulletin.gwu.edu/archives/2019-2020/engineering-applied-science/computer-science/bs/#requirementstext">http://bulletin.gwu.edu/archives/2019-2020/engineering-applied-science/computer-science/bs/#requirementstext</a>

**Read before signing:** I have reviewed the requirements and I understand what I must do to complete these requirements. Any revisions must be approved in writing.

Required Signatures						
Student Signature			Date			
SEAS Faculty Advisor Signature		Last Name		Date		
CS Undergraduate Program Director Signature		Last Name		Date		

For Advising Office Use Only	SEAS Under

Submit forms to: SEAS Undergraduate Student Services and Advising seasadvising@gwu.edu