## COMPUTER SCIENCE, CERTIFICATE

## Requirements

Code	Title	Hours
Upper Division Requirements		
CSC 311	Data Structures	3
CSC 321	Programming Languages	3
CSC 331	Computer Organization	3
Electives		
Select three courses from the following: 9		
CSC 337	Microcomputers	
CSC 341	Operating Systems	
CSC 353	File Processing	
CSC 361	Systems Programming	
CSC 395	Sel Topics in Computer Science	
CSC 401	Analysis Of Algorithms	
CSC 411	Artificial Intelligence	
CSC 421	Advanced Programming Languages	
CSC 431	Advanced Computer Organization	
CSC 441	Advanced Operating Systems	
CSC 451	Computer Networks	
CSC 453	Data Management	
CSC 455	WWW Design and Management	
CSC 459	Security Engineering	
CSC 461	Computer Graphics I	
CSC 463	Computer Graphics II	
CSC 471	Compiler Construction I	
CSC 490	Senior Seminar	
CSC 492	Senior Design	
CSC 495	Selected Topics:	
MAT 361	Finite Automata	
MAT 367	Numerical Analysis I	
MAT 369	Numerical Analysis II	
Total Hours		18

## Notes:

- Adequate preparation in terms of the completion of all lower division courses which are prerequisites of courses for this certificate is necessary.
- At least four of the six upper division courses must be taken at CSU Dominguez Hills.
- 3. None of the upper division courses may be taken as credit/no credit.
- 4. A minimum grade point average of 2.0 is required for all units taken for the certificate.