COMPUTER SCIENCE - BACHELOR OF SCIENCE/ MASTER OF SCIENCE

5 Year Dual Degree BS+MS Program

The dual degree program combines some of the requirements of the Bachelor of Science (BS) and the Master of Science (MS) in Computer Science. It is very important for the student to apply to the BS+MS program before they take any 400-level C S courses. Full details of the program can be found at http://www.cs.nmsu.edu (https://www.cs.nmsu.edu).

Admission occurs in two steps.

1. First, students will apply to the Computer Science department to receive approval for the BS+MS program. The student submits the pre-application when he/she is within 48 credits of earning a BS in Computer Science; an application form is provided on the department website. Qualification for the BS+MS program will be based on the cumulative (non-grade replaced) grade point average in Computer Science and Math courses taken up to that point (at least 3.5), including at least two of the following: C S 370 Compilers and Automata Theory, C S 371 Software Development and C S 372 Data Structures and Algorithms, and recommendations by faculty members listed on the departmental application. Additional factors might be taken into account when available (e.g., GRE scores). Students having a grade point average below 3.5 may be admitted to the combined program on a case-by-case basis, depending on faculty recommendations and evaluations of the individual academic and professional history.
2. Once the Computer Science department has notified the applicant of acceptance in the combined BS+MS program, the applicant must then formally apply to the graduate school (https://apply.nmsu.edu/apply/?id=1c3c41ea-b5f9-48ef-83c3-b085794ba277) for formal admission to the graduate program. This application to the graduate school is made during the semester of graduation from the BS in Computer Science.

The curriculum for the first three years of the BS+MS program coincides with the requirements of the BS program. In particular; the general requirements include a grade of at least a C- in each course satisfying the departmental and non-departmental requirements. No course may be counted as satisfying both a departmental and non-departmental requirement. No course taken to satisfy either a departmental or non-departmental requirement may be taken S/U. The following are the departmental requirements for the degree (the non-departmental requirements are identical to those of the BS in Computer Science).

Prefix	Title	Credits
Departmental Requirements for Years 1 through 4		
C S 172	Computer Science I	4
C S 271	Object Oriented Programming	4
C S 272	Introduction to Data Structures	4
C S 273	Machine Programming and Organization	4
C S 278	Discrete Mathematics for Computer Science	4
C S 370	Compilers and Automata Theory	4
C S 371	Software Development	4
C S 372	Data Structures and Algorithms	4
C S 419	Computing Ethics and Social Implications of Computing	1
C S 449	Senior Thesis	4
or C S 448	Senior Project	
C S 471	Programming Language Structure I	3
C S 474	Operating Systems I	3
C S 482	Database Management Systems I	3
Select one from the following:		3
C S 504	Computer Networks I	
C S 505	Artificial Intelligence I	
C S 506	Computer Graphics I	
C S 508	Introduction to Data Mining	
C S 509	Bioinformatics Programming	
C S 513	Computer Security	
C S 514	Introduction to Smart Grids	
C S 515	Human-Centered Computing	
C S 516	Bioinformatics	
C S 517	Digital Game Design	
C S 518	Visual Programming	
C S 519	Applied Machine Learning I	
C S 521	Parallel Programming	
C S 522	Cloud and Edge Computing	
Select one from the following:		3
C S 573	Architectural Concepts II	
C S 574	Operating Systems II	
C S 584	Computer Networks II	
Departmental Requirements for Year 5		
C S 510	Automata, Languages, Computability	3
C S 570	Analysis of Algorithms	3
One additional course numbered 550 or above		3
One additional course numbered 500 or above		3
C S 599	Master's Thesis [1]	6
or C S 598	Master's Project	
Select one from the following:		3
C S 575	Artificial Intelligence II	
C S 581	Advanced Software Engineering	
C S 582	Database Management Systems II	
Select one from the following:		3
C S 573	Architectural Concepts II	
C S 574	Operating Systems II	
C S 575	Artificial Intelligence II	
C S 581	Advanced Software Engineering	
C S 582	Database Management Systems II	
C S 584	Computer Networks II	
C S 586	Algorithms in Systems Biology	
Total Credits		**76**

1

In order to fulfill the degree requirement, the student must complete a total of 6 credits for either course.