COMPUTER SCIENCE - MASTER OF SCIENCE

The Master of Computer Science degree has two tracks, one with thesis or project track and a course-work only track. For all master's students, the following apply:

- Each master's student must complete 12 credits of the basic requirements (p. 1)(see table below).
- Each master's student is expected to register for C S classes numbered 500 or above, except for C S 469 Data Structure and Algorithms Transition or deficiencies which are 46x courses (Transition Courses) or C S 471 Programming Language Structure I or C S 474 Operating Systems I.
- Courses not in Computer Science can be included in the student's program of study only if prior written approval has been obtained from the student's advisor and the departmental Graduate Committee. Further details can be found in the on-line Graduate Handbook (https://computerscience.nmsu.edu/).
- **For Thesis/Project track's students**: each student following this track needs to complete the following three requirements:
  - ***Courses***: each student *needs to take*, in addition to the basic requirement, **15 credits** of Computer Science graduate courses (courses numbered > 500) with the following restrictions:
    - One course can only be used to satisfy one requirement (e.g., if C S 510 Automata, Languages, Computability is used to satisfy the requirement for the **Theories** category, it cannot be counted towards satisfying the requirements on ***Courses***).
    - At most 6 credits of C S 579 Special Topics with different topics (i.e., with different subtitles) can be counted towards the degree program of the student.
    - At most 6 credits of C S 589 Special Research Problems can be counted towards the degree program of the student.
    - No credit of course numbered > 599 can be counted towards the degree program.
  - ***Thesis/Project***: each student *must write a thesis* (C S 599 Master's Thesis) or *undertake a research project* (C S 598 Master's Project) for **6 credits**.
  - ***Master Final Exam***: each student *is required to sustain a final exam,* covering the thesis/research project and the graduate course-work. The two parts of the exam bring equal weight.

- **For Course-Work Only track's students:** Each student following this track needs to take, in addition to the basic requirement, **24 credits** of Computer Science graduate courses (courses numbered > 500) with the following restrictions:
  - One course can only be used to satisfy one requirement (e.g., if C S 510 Automata, Languages, Computability is used to satisfy the requirement for the **Theories** category, it cannot be counted towards satisfying the requirements on **Courses**).
  - At most 6 credits of C S 579 Special Topics with different topics (i.e., with different subtitles) can be counted towards the degree program of the student.
  - No credit of course numbered > 588 can be counted towards the degree program.

Basic Requirements

Prefix	Title	Credits
Basic		**3**
C S 469	Data Structure and Algorithms Transition	
Theories		**3**
C S 510	Automata, Languages, Computability	
C S 570	Analysis of Algorithms	
C S 586	Algorithms in Systems Biology	
Systems		**3**
C S 574	Operating Systems II	
C S 582	Database Management Systems II	
C S 584	Computer Networks II	
Applications		**3**
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	
C S 525	Introduction to Cryptography	
C S 532	Modern Web Technologies	
C S 533	Introduction to Deep Learning	
C S 534	Graph Data Mining	
C S 575	Artificial Intelligence II	
C S 581	Advanced Software Engineering	
Total Credits		**12**