

1/21/09

**ROOSEVELT UNIVERSITY**  
**Master of Science in Computer Science**

**Admit Term:**

Student \_\_\_\_\_ Advisor \_\_\_\_\_ Phone \_\_\_\_\_  
E-mail \_\_\_\_\_ SID \_\_\_\_\_ Date \_\_\_\_\_

**Prerequisites for the MS in Computer Science:**

Accredited Bachelors Degree: \_\_\_\_\_ TOEFL/ELP \_\_\_\_\_

\_\_\_\_\_ CS-I (CST 150)

\_\_\_\_\_ CS-II (CST 250)

\_\_\_\_\_ CS-III (CST 280)

\_\_\_\_\_ Assembler (CST 260 or 261)

\_\_\_\_\_ Calculus I (MATH 231)

\_\_\_\_\_ Discrete Str.(MATH 245)

\_\_\_\_\_ Linear Alg.(MATH 300) or Probab. & Stats (Math 217)

\_\_\_\_\_ Calculus II (recommended)

**Graduate Level Requirements for the MS in Computer Science** (36 semester hours, with at least 18 s.h. at the advanced core/electives/capstone courses list):

**I. Ten courses (30 sh) chosen in consultation with your advisor:**

**A. Required Courses:**

CST 405 Adv. Data Structures, CST 408 Advanced Algorithms

**B1. Beginning Core List** -- Courses from the Beginning Core list must be taken as part of the program if not part of the undergraduate degree:

CST 417 Operating Systems, CST 433 Database Systems, CST 440 Computer Architecture

**B2. Advanced Core List** -- At least two courses must be chosen from the Advanced Core list:

CST 410 Formal Lang. & Automata, CST 415 Parallel & High Performance Computing, CST 420 Analysis of Algorithms, CST 471 Distributed DBs, CST 486 Info. Retrieval

**C1. Beginning Electives**

CST 427 Combinatronics, CST 430 Numerical Analysis, CST 444 OOP and the .NET Framework, CST 450 Boolean Alg. & Switch. Theory, CST 451 Bioinformatics, CST 452 Network Design, CST 454 Local Area Networks, CST 457 Systems Prog., CST 465 Network Applications Prog., CST 468 Internet Security, CST 472 Progr. Lang., CST 478 Pattern Recognition, CST 482 Computer Graphics

**C2. Advanced Electives**

CST 428 Linear Progr. & Optimization, CST 446 Coding Theory, CST 455 Graduate Seminar, CST 466 Cryptography, CST 467 WEB DB App., CST 476 Dist. App., CST 480 Special Topics in CS., CST 481 Artificial Intelligence

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**II. Capstone Project/Thesis or Comprehensive Exam (6 sh):**

**A. Capstone Project/Thesis:**

CST 485 Thesis/Project Research (second to last semester) \_\_\_\_\_ (graded)  
and CST 490 Thesis or 499 Project (last semester) \_\_\_\_\_ (pass/fail)

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**B. Comprehensive Exam:**

Two more courses from advanced core/advanced electives lists: \_\_\_\_\_  
and Comprehensive exam: \_\_\_\_\_ (pass/fail)