

# COMPUTER SYSTEMS AND SOFTWARE DESIGN - INFORMATION SECURITY AND ASSURANCE (MASTER OF SCIENCE)

## Application Deadlines

Deadline dates for applications and receipt of all required application materials are:

| Date       | Event            |
|------------|------------------|
| May 1      | Fall Admission   |
| October 15 | Spring Admission |

There is no Summer Admission to this program. Applications received after the deadline will be considered for the following term.

## Application Materials Required for the MS with a Major in Computer Systems and Software Design - Information Security and Assurance

Applicants for the MS in CSSD must submit the following documentation to Graduate Admissions to be considered for admission:

Graduate Admissions  
Jacksonville State University  
700 Pelham Road North  
Jacksonville, Alabama 36265-1602

1. Completed JSU Graduate Application for Admission (<https://gr-recruiter.jsu.edu/Apply/Account/Login/>).
2. Non-refundable \$35.00 application processing fee.
3. Official transcripts from the baccalaureate degree awarding institution and **all** transcripts from institutions where post-baccalaureate work has been completed. To be considered for admission, applicants must hold a degree from an institutionally accredited institution or its foreign equivalent. (Students who have previously attended JSU do not need to request a transcript from the university).
4. Official test scores on the General Test of the Graduate Record Exam (GRE) (<https://www.ets.org/gre/>). The GRE must have been taken within the previous five years of enrollment. Note that JSU students who graduated from the MCIS Department with a BS in "Computer Science" or a BS in "Computer Information Systems" will be waived off the GRE requirement.
5. Three Graduate Reference Forms completed by individuals who can provide qualitative assessment of the applicant's potential for success in graduate coursework. Reference forms will be submitted electronically. Instructions for submission will be sent through email to the applicant upon submission of the online graduate application.
6. International student applicants must see the International Student Applicants (<https://catalog.jsu.edu/graduate/admission/>

international-student-applicants/) section of this catalog for other application and enrollment requirements.

## Application Materials Required for the MS with a Major in Computer Systems and Software Design - Information Security and Assurance

Applicants for the MS in Computer Systems and Software Design must meet at minimum one of the following two requirements to be considered for admission:

1. Have completed the equivalent of an undergraduate degree with a major in computer science, software engineering, or information systems as determined by the graduate computer science faculty.
2. Applicants with degrees in related fields with a minimum of three years' experience in systems and software design may be considered. These applicants should have the equivalent of a minor in computer science including courses equivalent to the following:

- CS 232 Computer Programming II (3)
- CS 310 Software Engineering I (3)
- CS 450 Computer Networking (3)
- CS 488 Database Systems (3)
- And either MS 120 Calculus and Its Applications (3) or MS 125 Calculus I (4)

Any applicant who is deficient in the minimum admission requirements specified above may be either denied admission or conditionally admitted. Conditionally admitted students must take and pass with a "C" grade or above the additional courses at the undergraduate level specified by the department. In addition, the conditionally admitted applicant must achieve a GPA of at least a 3.00 on the first 12 graduate hours attempted within the time frame specified by the graduate faculty and indicated in writing to the student. Failure to comply will result in the student being dropped from the program.

Admission to the MS in Computer Systems and Software Design is determined on a selective basis after careful review of all application materials. The strongest applicants will have a 3.50 or higher undergraduate GPA in computer science or a related topic and a GRE score of 300 or higher (verbal + quantitative). For purposes of computing the undergraduate GPA, a 4.00 grade-point scale is used. The plus (+) and minus (-) grades from undergraduate transcripts are not used in calculating GPA. Applicants may be required to interview with the Computer Science and Software Design Graduate Committee so that additional information can be gathered before a final admission decision is made. Meeting the minimum admission requirements as specified previously does not guarantee admission to the program.

All applications will be reviewed by the graduate faculty in the program. The faculty will submit to the Dean of the Graduate School their recommendation on the admission of each applicant. The Dean of the Graduate School will make the final decision on the admission of the student.

## Minimum Requirements for the MS with a Major in Computer Systems and Software Design - Information Security and Assurance

An overall 3.00 GPA is required on all coursework attempted for the master's degree. Transfer credit cannot be used to raise the GPA to the required 3.00.

### Studio Option:

Students accepted into the MS in CSSD with the studio option must complete a six-hour studio component through which an exposition paper will be generated. The student must meet with a graduate faculty member who will select an Advisory Committee to supervise the studio component of the program. The advisor and committee are responsible for determining successful completion of the studio component of the program by evaluation of the exposition paper and the student's presentation of same. The studio defense may be presented online. Time will be allotted after all presentations for the faculty present to ask questions of the student.

| Course                                  | Title  | Credits   |
|---|--|-----------|
| <b>Required Core Courses</b>            |  |           |
| CS 501                                  | Database Management Systems                                    | 3         |
| CS 521                                  | Applied Software Engineering I                                 | 3         |
| CS 523                                  | Applied Software Engineering II                                | 3         |
| CS 550                                  | Distributed Computing Systems                                  | 3         |
| CS 570                                  | Advanced Computer Security                                     | 3         |
| CS 547                                  | Wireless Networking and Security                               | 3         |
| <b>Electives</b>                        |  |           |
| Select six semester hours of electives: |  | 6         |
| CS 502                                  | Research Methods and System Evaluation                         |           |
| CS 525                                  | Advanced Web Applications Using Web Services                   |           |
| CS 530                                  | Human-Computer Interaction                                     |           |
| CS 536                                  | Computational Intelligence                                     |           |
| CS 538                                  | Business Intelligence and Data Mining                          |           |
| CS 540                                  | Bioinformatics Algorithms                                      |           |
| CS 541                                  | Digital Media: Theory and Processing                           |           |
| CS 544                                  | Applied Artificial Intelligence                                |           |
| CS 546                                  | Advanced Management of Information Systems                     |           |
| CS 565                                  | Embedded and Real-Time Software Development                    |           |
| CS 591                                  | Special Topics in Computer Science                             |           |
| CS 592                                  | Special Topics in Computer Science                             |           |
| EM 505                                  | Foundations of Emergency Management                            |           |
| <b>Studio Option</b>                    |  |           |
| CS 595                                  | Studio Component (topic in Information Security and Assurance) | 3         |
| CS 596                                  | Studio Component (topic in Information Security and Assurance) | 3         |
| <b>Total Hours</b>                      |  | <b>30</b> |

**30 Graduate Semester Hours Required for this Degree**

### Non-Studio Option:

| Course   | Title  | Credits   |
|--|--|-----------|
| <b>Required Core Courses</b>   |  |           |
| CS 501   | Database Management Systems                  | 3         |
| CS 521   | Applied Software Engineering I               | 3         |
| CS 523   | Applied Software Engineering II              | 3         |
| CS 550   | Distributed Computing Systems                | 3         |
| CS 570   | Advanced Computer Security                   | 3         |
| CS 547   | Wireless Networking and Security             | 3         |
| <b>Electives</b>   |  |           |
| Select nine semester hours of the following courses related to Information Security and Assurance: |  | 9         |
| EM 505   | Foundations of Emergency Management          |           |
| CS 530   | Human-Computer Interaction                   |           |
| CS 538   | Business Intelligence and Data Mining        |           |
| CS 565   | Embedded and Real-Time Software Development  |           |
| Select six semester hours of the following:  |  | 6         |
| CS 502   | Research Methods and System Evaluation       |           |
| CS 525   | Advanced Web Applications Using Web Services |           |
| CS 536   | Computational Intelligence                   |           |
| CS 540   | Bioinformatics Algorithms                    |           |
| CS 541   | Digital Media: Theory and Processing         |           |
| CS 544   | Applied Artificial Intelligence              |           |
| CS 546   | Advanced Management of Information Systems   |           |
| CS 591   | Special Topics in Computer Science           |           |
| CS 592   | Special Topics in Computer Science           |           |
| <b>Total Hours</b>   |  | <b>33</b> |

**33 Graduate Semester Hours Required for this Degree**

## Graduation and Comprehensive Exam

No comprehensive exam is required for this degree. All students must apply for graduation (<http://www.jsu.edu/graduate/graduation.html>) by the given deadline of the semester (<http://www.jsu.edu/registrar/academic-calendar/>) in which they plan to graduate. Please see the Graduation and Comprehensive Exam (<https://catalog.jsu.edu/graduate/academic-policies-procedures/graduation-comprehensive-exam/>) section of this catalog for more information.