UF UNIVERSITY of FLORIDA

Combined Bachelors and Masters Degree Request

A 3.2 UF GPA (some programs may require a higher GPA) is necessary to enroll in 12 hours (21 for certain programs) of graduate course work during the junior and/or senior year. To apply the graduate credit to a master's degree, you must meet admission requirments of the Graduate School and all graduate coursework must be completed with grades of B or better. Contact the graduate coordinator for details.

Student Information

UFID | Last Name | First Name | Middle Name

Email Address | Telephone

Local Mailing Address

Undergraduate Degree

Major

College

Degree

Signature of Undergraduate Department | Date

Graduate Degree

Major/Department

College

Degree

Signature of Graduate Department | Date

List the courses you wish to apply to both the undergraduate and graduate degrees.
A maximum of 12 credits (21 credits for certain programs) can apply dually to both degrees.

Course Prefix and Number	Course Title	Credits	Grade	Term Taken

Signature of Applicant | Date | Signature of Undergraduate Advising Dean | Date

Applicant: Submit the completed form with all signatures to the college undergraduate advising office.
College: Once approved, send a PDF of the approved form to Roxanne Barnett, rbarnett@ufl.edu

Procedures for Applying to the BS/MS CISE Programs

A student wishing to apply to the combined BS/MS CISE programs must satisfy the following minimum criteria:

1. Must have at least junior status
2. Must have an overall GPA of at least 3.3
3. Must have completed at least three of the following four courses with a minimum of 3.3 GPA:
   - COP 3504 – Advanced Programming Fundamentals for CISE majors (or equivalent: COP3502 **AND** COP3503)
   - COT 3100 - Applications of Discrete Structures
   - CDA 3101 - Introduction to Computer Organization
   - COP 3530 - Data Structures and Algorithms

   *Note: students transferring with courses from another institution must complete at least 6 hours of major coursework at UF before becoming eligible.
4. Must have received a GRE score (combined verbal + quantitative) of at least 300 (new scale).
   Note: tentative acceptance may be made if the applicant's SAT score is at least 1200.

The completed application should be returned to one of the CISE undergraduate advising offices.

Applicants will be notified of their status within 10 business days of the submission of their application. If approved, sign in at E405 to see Tina Stagliano for additional information.

Please note that pursuing this program of study will affect your Bright Futures Scholarship. Please check with Financial Aid for details.

IMPORTANT PLANNING NOTE:

Any grad-level course completed with a grade of "B" or better will be transferred to your graduate program.

Combined Bachelors/Masters Approved Electives

The following courses have been approved as electives to be taken by students in the Combined Bachelors/Masters program during the senior year. While these courses have been approved as elective, students are ***strongly encouraged*** to discuss their proposed course load with the Undergraduate ***and*** Graduate Advisers prior to registration.

CAP 5416 - Computer Vision (3) Prereq: MAC 2312, CGN 3421 or C-language. Introduction to image formation and analysis. Monocular imaging system, projections, camera model calibration, and binocular imaging. Low-level vision techniques, segmentation and representation techniques, and high-level vision.

CAP 5635 - Artificial Intelligence Concepts (3) Prereq: CIS 3020, COP 3530 or equivalent. Heuristic search, game theory, knowledge representation, logic, machine learning, AI language and tools. Applications such as planning, natural language understanding, expert systems, and computer vision.

CAP 5705 - Computer Graphics (3) Prereq: COP 3530. Display device characteristics; system considerations, display algorithms. Curve and surface generation. Lighting models and image rendering.

CAP 5805 - Computer Simulation Concepts (3) Prereq: COP 3530. Introduction to concepts in continuous and discrete simulation. Emphasis on fundamental concepts and methodology, using practical examples from a wide variety of disciplines.

CAP 6615 - Neutral Networks for Computing (3) Prereq: CAP 6635. Neural network models and algorithms. Adaptive behavior, associative learning, competitive dynamics and biological mechanisms. Applications include computer vision, cognitive information processing, control, and signal analysis.

CAP 6685 - Expert Systems (3) Prereq: CAP 6635. Production systems, meta-knowledge, heuristic discovery, in-depth examination of several expert systems including TEIRESIAS, AM, DENDRAL, MYCIN, IRIS, CASNET, INTERNIST, BACON, PROSPECTOR.

CAP 6836 - Advanced Concepts in Computer Simulation (3) Prereq: CAP 5805. Elements of simulation modeling and analysis. Discrete and continuous simulation methodology. Incorporation of computer animation and physically based modeling techniques.

CDA 5155 - Computer Architecture Principles (3) Prereq: CDA 3101, COP 3530, and 4600. Fundamental design issues of processor and computer architecture, a variety of design approaches for CPU, memory and system structure.

CEN 5035 - Software Engineering (3) Prereq: CIS 3020 and COT 3100. Topics in projects organization, specification techniques, reliability measurement, documentation.

CEN 6070 - Software Testing and Verification (3) Prereq: CEN 5035. Concepts, principles, and methods for software testing and verification. Topics include human and machine-based testing strategies, formal proofs of correctness and software reliability.

CEN 6075 - Software Specification (3) Prereq: CEN 5035. Concepts, principles, and methods for practical software specification. System modeling, requirements exploration, validation and prototyping, and documentation techniques.

CEN 6081 - Software Engineering for Parallel and Distributed Systems (3) Prereq: CEN 5035. Characteristics of software for parallel processing and distributed computing systems as well as embedded systems. Development and maintenance methodologies for such software systems.

CEN 6082 - Software Maintenance and Reuse (3) Prereq: CEN 5035. Concepts, principles, and techniques for software maintenance and reuse. Using software reuse technologies to improve software development productivity and quality as well as to facilitate software maintenance.

CEN 6405 - Computer System Measurement and Evaluation (3) Prereq: COP 5615 and basic course in probability and statistics. Computer measurement tools and techniques, analytical techniques for computer system modeling and evaluation, simulation techniques, performance measurement and evaluation in performance improvement problems, and performance evaluation in compute comparison and selection problems.

CIS 6930 - Special Topics in CIS (3; max:9) Prereq: vary depending on topics.

CNT 6107 - Computer Communication Networks (3) Prereq: COP 5615 and 5536. Computer network architecture, including topologies, media, switching, routing, congestion control, protocols, and case studies.

COP 5536 - Advanced Data Structures (3) Prereq: COP 3530. Development of efficient data structures used to obtain more efficient solutions to classical problems, such as those based on graph theoretical model, as well as problems that arise in application areas of contemporary interest.

COP 5615 – Distributed Operating System Principles (3) Prereq: COP 4600. The concepts and techniques of efficient management of computer system resources.

COP 5725 - Database Management Systems (3) Prereq: COP 3530, 4600, or equivalent. An introduction to systems and procedures for managing large computerized databases.

COP 6715 - Database Design and Implementation (3) Prereq: COP 5725; a working knowledge of database system architecture, data models, sublanguages, storage structures and access techniques, file organizations, and access methods. Systematic, integrated database design and implementation including corporate requirement analysis, semantic modeling, view integration, data mapping to DBMS schema and subschema, physical database design and evaluation, and database restructuring and conversion. Term project.

COT 5405 - Analysis of Algorithms (3) Prereq: (3) COP 3530 or equivalent. Introduction and illustration of basic techniques for designing efficient algorithms and analyzing algorithm complexity.