# Computer Science, Bachelor of Science (BS, St. Joseph's College) and Master of Science (MS, Hofstra University), 5 Year Program

## 1. Program Description

The 5 Year program in computer science provides outstanding computer science students at St. Joseph's College an opportunity to earn both a bachelor's degree from St. Joseph's College and a master's degree from Hofstra University within approximately five years. Among the 30 semester hours of required graduate-level courses, 6 semester hours, taken at St. Joseph's College by qualified undergraduate students who have attained senior standing, can be used toward both the BS and MS degrees.

## 2. Admission Requirements for Currently Enrolled St. Joseph's Students

Eligible SJC undergraduate computer science majors may apply for admission to the program. The following requirements must be met:

1. Undergraduate GPA of at least 3.0.
2. Completion of core SJC COM courses: MAT 203, COM 152, 210, 370, 249.
3. Applicants must submit applications after snccessfully completing a minimum of 75 undergraduate credits but prior to enrolling in their last 12 credits of coursework toward the BS in computer science.

Overall GPA of at least 3.0 mnst be maintained after admission to the program. Students can start enrolling in CS graduate courses at Hofstra University upon graduation from St. Joseph.

## 3. Program Requirements

Students must meet all degree reqnirements as stated in the curricula of the BS program in computer science (SJC) and the MS program in computer science (Hofstra). The only exceptiou is that 6 semester hours of graduate work, consisting of SJC COM 304 and COM 310, may be used toward both degrees.

Students who have received a grade of B or above in either of SJC COM 310 or COM 304 should not take the corresponding graduate course at Hofstra: CSC 256 or CSC 204. In these cases, the student will select, under the advisement of the graduate director, alternative CSC graduate courses to fulfill degree requirements. A student who has earned a grade lower than B in SJC COM 310 or COM 304 must retake the corresponding graduate course (CSC 256 or CSC 204) in order to satisfy the MS degree requirements.

## 4. OTHER PROGRAM REQUIREMENTS – TOTAL SEMESTER HOURS 30

The Master of Science in Computer Science requires the satisfactory completion of a 30-semester hour program, including up to two undergraduate courses as described in section 3, and including either a 6-semester hour thesis (CSC 301 and 302) or a 3-semester hour project (CSC 300, 301 or 303). At least 24 semester hours must be in graduate computer science courses. At least 24 semester hours must be completed in residence at Hofstra. A minimum 3.0 grade point average with a grade of C or better in all courses is required.

The Master of Science in Computer Science Program requires the satisfactory completion of

1. three fundamental required courses (9 semester hours) and two thesis courses (6 semester hours) and 15 semester hours of elective courses, or

2. three fundamental required courses (9 semester hours) and one capstone project course (3 semester hours), and 18 semester hours of elective courses.

### Required Fundamental Courses - Semester Hours: 9

- CSC 204 or SJC's COM 304 – Algorithms Semester Hours: 3

- CSC 252 – Programming Language Concepts Semester Hours: 3

- CSC 256 or SJC's COM 310- Advanced Operating Systems Design Semester Hours: 3

### Electives

To complete the 30-semester hour program requirement, students select elective courses, including up to two independent study/research courses (CSC 290 A-Z). For the complete list of graduate courses see the course listings within this Bulletin.

### Concentrations

Interested students may fulfill their elective requirements by fulfilling the requirements for the following concentrations. Courses in the concentration can be substituted only with the permission of the graduate program director.

### Web Engineering

Choose any three courses from the following:

- CSC 283 - Web Application Development Semester Hours: 3

- CSC 285 - Mobile Device Programming Semester Hours: 3

- CSC 254 - Database Design Semester Hours: 3

- CSC 251 - Software Project Management Semester Hours: 3

**Networking and Security**

Choose any three courses from the following:

- CSC 284 - Computer Communication Networks and Distributed Processing Semester Hours: 3

- CSC 215 - Secure Systems/Ethical Hacking Semester Hours: 3

- CSC 288 - Network Security Semester Hours: 3

- CSC 203 - Privacy in a Wired World Semester Hours: 3

**Required Capstone Experience**

The capstone experience (thesis or project) should be in the chosen area of specialization. The thesis is a 6- credit undertaking, composed of a sequence of two courses (CSC 301 and 302). The project is a 3-credit course (CSC 300, 301 or 303). The thesis is research oriented, with a much larger scope and depth than the project and with a substantial writing component. Both the thesis and the project include a written body of work and a presentation. Students must have completed 18 semester hours of computer science graduate course work prior to beginning their thesis or master's project. Students should contact the graduate director as soon as they complete 18 semester hours and discuss a possible topic and elective courses that would prepare them for the capstone thesis or master's project. A student must have a thesis/project adviser and a thesis/project committee prior to registering for a thesis or a project. A thesis/project proposal on approval from the adviser must be submitted to the graduate director. A student defends a thesis at an individual one-hour presentation, whereas a project is presented in a 15-minute presentation as part of a departmental colloquium (or an online presentation is made publicly available on the departmental Web site).
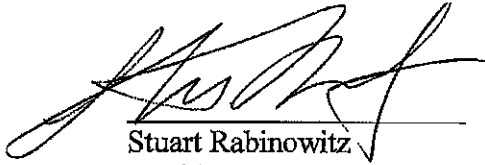
- CSC 300 - Independent Projects **Semester Hours: 3**

- CSC 301 - Thesis Background Research **Semester Hours: 3**

- CSC 302 - Thesis **Semester Hours: 3**

- CSC 303 - Graduate Capstone Project **Semester Hours: 3**

# 5. GRADUATION REQUIREMENTS

1. Completion of all program requirements.

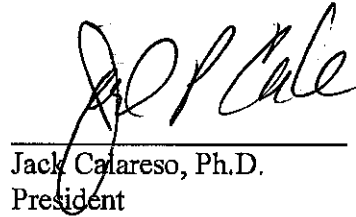2. A minimum grade point average of 3.0 in overall graduate course work.

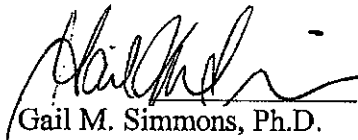**For Hofstra University:**

**For Saint Joseph's College:**

_____ 05/03/2017
Stuart Rabinowitz                    Date
President
Hofstra University
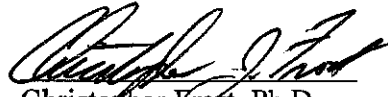
_____ 5/22/17
Jack Calareso, Ph.D.                Date
President
Saint Joseph's College

_____ 05/03/2017
Gail M. Simmons, Ph.D.             Date
rovost and Senior Vice President
for Academic Affairs

_____ 5-15-2017
Christopher Frost, Ph.D.            Date
Senior Vice President
for Academic Affairs