

Computer-related Majors and Careers

Jan Plaza, Ph.D.

Associate Professor and Chair
Computer Science Department
SUNY Plattsburgh

(518) 564-2788

(800) 256-6796

jan.plaza@plattsburgh.edu

<http://www.cs.plattsburgh.edu/~plazaja/department/handbook/>

April 7, 2018

Majors

- **Computer Science, BS** (61-71 cr.) – programming, software methodology, theory, math, principles, basis for innovation, preparation for graduate studies.
- **Computer Security, BS** (54-65 cr.) – problem solving, principles, software, configuration, administration, organizational issues.
- **Information Technology, BS** (55-63 cr.) – application, deployment, configuration, administration, technical support, organizational issues.
- **Robotics, BS** (67-76 cr.) – programming and hardware.

Bachelor of Science – as above, recommended;

Bachelor of Arts – less credits, for double majors, etc.

Theoretical and applied courses, and **internships**.

Second major possible, in area other than computing; CS and Robotics can be combined. Multiple minors are encouraged.

Minors

30 cr. - Gen Eds

60 cr. - Major

30 cr. - College Electives, **Minors**

120 cr. - TOTAL required for the diploma.

Computing Minors:

- **Computer Science** (add 12 cr.)
- **Computer Security** (add 15 cr.)
- **Information Technology** (add 12 cr.)
- **Data Analytics** (add 15 cr.)

Interdisciplinary Minors:

- **Bio-informatics** (add 18-21 cr.)
- **Robotics** minor (add 16 cr.)
- **Web Design and Programming** minor (add 12-15 cr.)

Jobs

- Information security analysts (SEC + cs/it/da)
- Computer programmers, software engineers and software developers (CS + sec)
- Computer scientists - Graduate school, education and research (CS + math)
- Database administrators (IT + sec)
- Computer support specialists and technicians, (IT + sec)
- System and network administrators (IT + sec)
- Network architects (IT + sec)
- Computer systems analysts (IT + sec/da)
- Web developers (CS/IT + web)
- Robotics programmer (RBT-PROG + cs)
- Robotics/electromechanics, autonomic vehicle or automation specialist/developer (RBT-HARDWARE + cs)

Bureau of Labor Statistics

Occupational Outlook Handbook

Computer and Information Technology

[http://www.bls.gov/ooh/
computer-and-information-technology/home.htm](http://www.bls.gov/ooh/computer-and-information-technology/home.htm)

10 occupation areas:

- 2 areas – Associate degree or none, median pay \$52,000-66,000,
- **7 areas – Bachelor's degree, median pay \$80,000 - 101,000**,
2016-2026 – DB faster than average,
Security and Software Development much faster than the average
- 1 area – advanced degree, median pay \$112,000.

Our former students

- Earned graduate degrees in computer science at Cornell, Oxford, U Delaware, Tufts, Emory and other leading universities.
- Alumnus (class of 2006) Mike Farley is a company co-owner and a co-designer of a device and an app, **Tile**, which promises an effective approach to lost and found items
<http://www.thetileapp.com>
- Alumna Cheryl McIntyre is Corporate Engineering Director of Complex Systems for Lockheed Martin Corporation.
- Alumna Diane Delaney (class of 1985) is IBM Security World Wide Talent Manager and IBM Executive Project Manager.
- CSC alumni visit the campus and department to talk to current students, about the realities of jobs and the job market.

SUNY Plattsburgh advantage

- Modern computer labs; more space available soon in Baumont;
- Will accommodate students with varying backgrounds;
- Small class sizes,
- Most CSC courses taught by full time faculty with doctoral degrees;
- Individual attention and help: instructors, academic advisors, Tutoring Center, Student Support Services, Career Development Center, ...;
- Computer Science Department, established in 1970, has the experience of keeping the curriculum current and preparing thousands of students for careers in computing;
- Many years in a row, SUNY Plattsburgh is among US News' top public regional universities in the North.

Preparing for Plattsburgh

- AP courses and most college courses can be transferred.
- Completing **Precalculus** is a plus
 - it is a prerequisite for core CSC courses at SUNY Plattsburgh.However you can take MAT 102 Precalculus here,
or you can take a test to demonstrate equivalent knowledge.

Computers

- Campus labs (Windows) – 7 days a week.
- Departmental lab and Project Room (Linux) – 7 days a week.
- Linux server available on the network/internet.
Very fast campus network.
- Hackerspace - Center for Cybersecurity and Technology.
- Computer at home (not required) – any OS: Windows, MacOS or Linux.
- iOS and Android tablets not enough for programming.

Conclusions

CS, CSec and IT majors prepare for careers which offer great pay, influence the future and spread innovation in all sectors of public life.

SUNY Plattsburgh Computer Science Department offers friendly, professional environment and support in achieving your goals.

For more information email the Department Chair, Dr. Jan Plaza:
jan.plaza@plattsburgh.edu