2018-2019 Graduate Handbook
Master of Science in Computer Vision (MSCV)
# Table of Contents

Welcome! ................................................................................................................................................................................ 5
A Note from the MSCV Program Director........................................................................................................................... 5
Degrees Offered........................................................................................................................................................................ 6
Graduate Student Handbook .............................................................................................................................................. 6
University Policies & Expectations ...................................................................................................................................... 6
Carnegie Mellon University Statement of Assurance ......................................................................................................... 6
The Carnegie Mellon Code .................................................................................................................................................. 7

1. Directory ......................................................................................................................................................................... 8
A. Faculty Contacts .......................................................................................................................................................... 8
B. Administrative Contacts .............................................................................................................................................. 8
C. University Contacts ..................................................................................................................................................... 8
D. Abbreviations .............................................................................................................................................................. 9

2. Departmental Policies ....................................................................................................................................................... 10
A. Department Directory ............................................................................................................................................... 10
B. Bulletin Boards and Email Distribution Lists ............................................................................................................. 10
C. Computing facilities .................................................................................................................................................. 10
D. Copy Machine and Fax Availability ........................................................................................................................... 10
E. Work Space ............................................................................................................................................................... 10
F. Key Distribution ............................................................................................................................................................. 10
G. Locker Rental ............................................................................................................................................................. 11
H. Purchasing and Reimbursement Procedures and Policies ............................................................................................... 11
I. Security, Repairs and Services........................................................................................................................................ 11
J. Graduate Student Organizations ...................................................................................................................................... 11
K. Community Spirit ...................................................................................................................................................... 11

3. Degree Attainment ....................................................................................................................................................... 12
A. Course Requirements................................................................................................................................................ 12
i. Sequence of Courses ............................................................................................................................................. 12
ii. Required Courses .................................................................................................................................................. 12
iii. Elective Courses .................................................................................................................................................... 13
iv. Project Requirement ............................................................................................................................................. 13
5. Additional Department and University Policies/Protocols ................................................................. 20
   A. Assistance for Individuals with Disabilities ...................................................................................... 20
   B. Protocol for Review of Academic Conflicts ...................................................................................... 20
   C. Policy Against Sexual Harassment and Sexual Assault ..................................................................... 20
   D. Maternity Accommodation Protocol ............................................................................................... 21
   E. Grandfather Policy ............................................................................................................................... 21
   F. Vacations and Time-Off ..................................................................................................................... 21

Appendix A ................................................................................................................................................... 22
   A. Key Offices for Graduate Student Support ......................................................................................... 22
      i. Office of the Assistant Vice Provost for Graduate Education ......................................................... 22
      ii. Office of the Dean of Student Affairs ............................................................................................. 22
      iii. Assistance for Individuals with Disabilities ................................................................................... 23
      iv. Eberly Center for Teaching Excellence & Educational Innovation ............................................... 23
      v. Carnegie Mellon Ethics Hotline ....................................................................................................... 23
     vii. Intercultural Communication Center (ICC) .................................................................................. 24
      viii. Office of International Education (OIE) ...................................................................................... 24
      ix. Veterans and Military Community ................................................................................................. 24
   B. Key Offices for Academic & Research Support ............................................................................... 24
      i. Computing and Information Resources ............................................................................................ 24
      ii. Research at CMU .............................................................................................................................. 25
     iii. Office of Research Integrity & Compliance ...................................................................................... 25
   C. Key Offices for Health, Wellness & Safety ...................................................................................... 25
      i. Counseling & Psychological Services ................................................................................................. 25
      ii. Health Services ................................................................................................................................. 25
     iii. University Police ................................................................................................................................ 26
   D. The WORD ............................................................................................................................................ 26
Welcome!

A Note from the MSCV Program Director:

Dear MSCV Students:

On behalf of the faculty, staff, and current students of The Robotics Institute (RI), I would like to welcome you to the family. The faculty and staff of RI will function not only as mentors and facilitators, but also as coworkers in this process.

The field of Computer Vision is advancing rapidly, and its applications continue to expand in areas of great societal value. The Master of Science in Computer Vision (MSCV) program is a unique advanced graduate degree that provides in-depth education and project experience in many areas of the field.

The MSCV program was created in 2014 to meet the growing demand for talent. It has been very exciting to watch the first three cohorts of MSCV students succeed throughout the program, during their internships, and now at their places of employment. I am thrilled to report that we had 100% placement for summer 2018 internships. Students were hosted by great companies, such as: Google (4), Amazon (4), A9 (3), NVIDIA (2), Adobe, Facebook, Microsoft, and Oculus, among many others.

RI is home to one of the largest academic groups in Computer Vision with ten faculty, many students, post-docs, and staff. We all look forward to getting to know each of you!

Warm Regards,

Kris Kitani
Director, MSCV Program
Professor, Robotics Institute
Degrees Offered
The Robotics Institute offers diverse educational opportunities at all levels.

Doctor of Philosophy (PhD)
- Doctor of Philosophy – Robotics

PhD Affiliated Programs
- MD / PhD – Robotics
- CNBC

Masters of Science (MS)
- Master of Science – Robotics
- Master of Science – Robotic Systems Development (MRSD)
- Master of Science – Computer Vision (MSCV)

Undergraduate Programs
- Additional Major – Robotics
- Minor – Robotics

This handbook focuses on the policies for the Master of Science in Computer Vision (MSCV) program. Information about the RI Academic programs can be found here.

Graduate Student Handbook
This handbook outlines the academic and departmental policies and procedures for students in the MSCV program. Students are encouraged to consult the handbook for guidance about degree attainment and other related topics. In addition to the handbook, MSCV students should familiarize themselves with the Roboguide (must be accessed within network).

University Policies & Expectations
It is the responsibility of each member of the Carnegie Mellon community to be familiar with university policies and guidelines. In addition to this departmental graduate student handbook, the following resources are available to assist you in understanding community expectations:

- The Word/Student Handbook
- Academic Integrity Website
- University Policies Website
- Graduate Education Website

Carnegie Mellon University Statement of Assurance
Carnegie Mellon University does not discriminate in admission, employment, or administration of its programs or activities on the basis of race, color, national origin, sex, handicap or disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. Furthermore, Carnegie Mellon University does not discriminate and is required not to discriminate in violation of federal, state, or local laws or executive orders. Inquiries concerning the application of and compliance with this statement should be directed to the vice president for campus affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056. The Statement of Assurance can also be found on-line.
The Carnegie Mellon Code

Because they are members of an academic community dedicated to the achievement of excellence, students at Carnegie Mellon are expected to meet the highest standards of personal, ethical, and moral conduct possible. These standards require personal integrity, a commitment to honesty without compromise, as well as truth without equivocation and a willingness to place the good of the community above the good of the self. Once undertaken, obligations must be met and commitments must be kept.

As members of the Carnegie Mellon community, individuals are expected to uphold the standards of the community in addition to holding others accountable for said standards. It is rare that the life of a student in an academic community can be so private that it will not affect the community as a whole or that the above standards do not apply.

The discovery, advancement and communication of knowledge are not possible without a commitment to these standards. Creativity cannot exist without acknowledgment of the creativity of others. New knowledge cannot be developed without credit for prior knowledge. Without the ability to trust that these principles will be observed, an academic community cannot exist.

The commitment of its faculty, staff, and students to these standards contributes to the high respect in which the Carnegie Mellon degree is held. Students must not destroy that respect by failing to meet these standards. Students who cannot meet them should voluntarily withdraw from the university.

The Carnegie Mellon Code can also be found on-line.
1. Directory

A. Faculty Contacts

Dean, School of Computer Science
Andrew W. Moore

Associate Dean for MS Programs
David Garlan

Director, RI
Martial Hebert

Program Director, MSCV
Kris Kitani

Director of Education, RI
David Wettergreen

Professor
Srinivasa Narasimhan

Associate Research Professor
Simon Lucey

Associate Professor
Deva Ramanan

Associate Professor
Abhinav Gupta

Associate Research Professor
Yaser Sheikh

Associate Professor
Drew Bagnell

Assistant Professor
David Held

Assistant Professor
Ioannis Gkioulekas

Systems Scientist
John M. Galeotti

Assistant Research Professor
Michael Kaess

Assistant Professor
Matt O’Toole

Assistant Research Professor,
Computational Biology Department
Min Xu

Assistant Professor,
Machine Learning Department
Katerina Fragkiadaki

B. Administrative Contacts

Academic Program Manager
Sarah Conte

Academic Program Manager
Barbara Jean (BJ) Fecich

Senior Administrative Coordinator
Dan Getkin

Graduate Program Manager
Suzanne Lyons Muth

Assoc Dir Finance & Administration
Cheryl Wehre

Administrative Coordinator
Christine Downey

MSCV, MRSD; Admissions, Advising

MSR, IDEATE, Undergraduates; Admissions, Advising

PhD; Admissions, Advising

Administrative oversight

Purchasing

C. University Contacts

Office of the Assistant Vice Provost for
Graduate Education (AVPGE)
Suzie Laurich-McIntyre

Division of Student Affairs
Angela Lusk

Graduate Student Academic Support/
Advocacy, Diversity Recruitment and
Programming, Graduate Policy,
Graduate Student Service Awards,
Professional Development Seminars,
Conference Funding, Diversity
Programming, Graduate Women’s
Gatherings, General Graduate Student
Support/Advocacy

General Graduate Student Support/
Advocacy, Emergency Intervention
Office of International Education (OIE)  Alison Day
International Graduate Issues, Graduate Tax Workshop for International Students, Immigration Issues

Career and Professional Development Center  Julie Filonuk
Career Resources

Intercultural Communication Center (ICC)

Graduate Student Assembly (GSA)

Enrollment Services - The HUB

Health Services

Counseling and Psychological Services (CAPS)

University Police

D. Abbreviations

CIT     College of Engineering
CMU     Carnegie Mellon University
CSD     Computer Science Department
CV      Computer Vision
GHC     Gates Hillman Center
GPA     Grade Point Average
GSA     Graduate Student Assembly
ICC     Intercultural Communication Center
ITA     International Teaching Assistant
LOA     Leave of Absence
MLD     Machine Learning Department
MSCV    Master of Science in Computer Vision
NSH     Newell Simon Hall
OIE     Office of International Education
PCHE    Pittsburgh Council on Higher Education
RI      Robotics Institute
SCS     School of Computer Science
SIO     Student Information Online
TA      Teaching Assistant/Assistantship
2. Departmental Policies

A. Department Directory
A comprehensive listing of all Robotics Faculty, Staff and Students can be found on the People of RI website. General contact information for faculty, students and staff affiliated with CMU can be found via directory search.

B. Bulletin Boards and Email Distribution Lists
Students are welcome to post flyers, advertisements, etc. to any bulletin board in Newell Simon Hall (NSH) common spaces (i.e. outside of elevators). MSCV students may use e-mail distribution lists to communicate messages to one another. Information about email distribution lists can be found in the Roboguide.

C. Computing facilities
Students should use the on-campus computing facilities offered by Computing Services. Students should adhere to the Computing Policies and Guidelines.

D. Copy Machine and Fax Availability
As a courtesy, MSCV students have access to the machine on the 4th floor of NSH. Students must use their windows password to login, then they can print, make copies, scan documents, and send faxes. Any issues with the copy machine should be promptly reported to Dan Getkin. Questions about connecting to printing are to be directed to SCS Help.

Students may also use public “Andrew” printing. The Andrew Printing service makes printers available in cluster locations, university libraries and public areas across campus. These printers can be accessed from a cluster computer, Web Station or from your personal computer. All campus affiliates are allotted a per-semester print quota which is debited as you print. Some locations offer color printing and special paper sizes. Instructions on installing the print drivers can be found here. For help with printing, refer to the How to Print documents.

E. Work Space
Students are encouraged to use the following common spaces.
- Robolounge, NSH 1513
- Graduate Collaboration Suite, NSH 4228

The following study rooms are designated for student use.
- NSH 4224
- NSH 4228 A/B
- NSH 4501

Students are welcome to use SCS common space in NSH, EDSH, and GHC. Students may also access conference rooms after hours. Students are expected to return rooms to their original condition after use.

F. Key Distribution
MSCV students have key access to NSH (004); this key works for the student conference rooms. If interested, ask the MSCV Program Manager for a key! It is up to the student to keep track of all keys and to return them when requested. Lost keys should be reported to the MSCV Program Manager right away.
G. Locker Rental
Students may rent a locker on the 4th floor of NSH to store their belongings. Students should contact Sarah Conte to complete a Locker Usage Agreement and to submit a cash deposit. RI is not liable for materials stored in the lockers. Students may not store open liquid containers, perishables, flame producing objects, or live animals in the lockers. The RI staff maintains keys to all lockers and has the right to open any locker at any time as deemed necessary.

H. Purchasing and Reimbursement Procedures and Policies
MSCV students will be provided with tools and supplies upon matriculation. If a student identifies the need for a tool or supply, he/she should speak to the MSCV Program Director. Students should not make MSCV purchases with personal funds without permission from the Program Director; this ensures that the business purpose is relevant and reimbursable. Once the purchase is approved, the student may move forward with the acquisition. Promptly following the purchase, the student should submit the original, itemized receipt for reimbursement.

I. Security, Repairs and Services
Students should inform the MSCV Program Manager of any non-emergency issues related to building security or repairs. If a student feels like he/she is in immediate danger, Campus Police should be called at 412-268-2323.

J. Graduate Student Organizations
The Graduate Student Assembly (GSA) is the branch of student government that represents all graduate students at CMU. GSA maintains an e-mail distribution list that students can subscribe to called GSA-Happenings. Women@SCS aims to create, encourage, and support academic, social, and professional opportunities for women in computer science and to promote the breadth of the field and its diverse community. Dec\5 is a social organization that encourages interaction between different Departments and Industry partners within SCS. RoboOrg is the graduate student organization of the RI. It organizes social events, trips, maintains the RoboLounge, and is also involved in the strategic long-term planning of the RI. MSCV students are encouraged to volunteer 1-2 representatives to work with RoboOrg in an active role.

K. Community Spirit
Our sense of community is a well-known, distinguishing aspect of studying robotics at CMU. RI is proud of our strong community spirit, which we foster through close working relationships between students, staff, and faculty. People volunteer their time, energy, intellect, and other skills to do many of the things that keep our environment running smoothly. These efforts include organizing seminars, serving on departmental committees, being a host during Open House, planning and running social activities, and giving tours. MSCV students are encouraged to get involved in the RI community!
3. Degree Attainment

A. Course Requirements
The degree requirements for students in the MSCV Program consist of required courses, elective courses, and an internship/practicum. To be eligible for degree certification, students must complete a minimum of 144 units of MSCV coursework as outlined in the curriculum. Detailed course descriptions can be found through the Schedule of Classes.

i. Sequence of Courses
It is recommended that students adhere to the following course sequence.

<table>
<thead>
<tr>
<th>1st Semester, Fall Term – 36 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course No.</td>
</tr>
<tr>
<td>16-720</td>
</tr>
<tr>
<td>16-811</td>
</tr>
<tr>
<td>10-601</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd Semester, Spring Term – 36 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course No.</td>
</tr>
<tr>
<td>16-824</td>
</tr>
<tr>
<td>16-621</td>
</tr>
<tr>
<td>xx-xxx</td>
</tr>
</tbody>
</table>

Summer Term: 36 units of CV-related internship

<table>
<thead>
<tr>
<th>3rd Semester, Fall Term – 36 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course No.</td>
</tr>
<tr>
<td>16-822</td>
</tr>
<tr>
<td>16-622</td>
</tr>
<tr>
<td>xx-xxx</td>
</tr>
</tbody>
</table>

ii. Required Courses
The courses listed below are required and must be completed by all students in the MSCV program with a grade of “B-” or better.

- Computer Vision (16-720)
- Mathematical Fundamentals of Robotics (16-811)
- Introduction to Machine Learning (10-601)
- Visual Learning and Recognition (16-824)
- Geometry Based Methods in Computer Vision (16-822)
- MSCV Project I (16-621)
- MSCV Project II (16-622)
iii. Elective Courses
MSCV students are required to complete a total of two (2) 12-unit electives. The electives listed on the MSCV Curriculum Webpage have been pre-approved for the MSCV degree; these do not require permission from the MSCV Program Director. Courses that are not included in the list require permission from the MSCV Program Director. To petition a course for degree inclusion, the student must send an email to the MSCV Program Manager that includes the course title, name of instructor, course description, and reasoning for requesting the course. With permission from the Program Director, MSCV students may be permitted to take up to 12 units of upper-level Undergraduate (XX-300/400 level) coursework for the degree. The MSCV program cannot guarantee the regularity in which electives will be offered – students should consult the Schedule of Classes to obtain this information. Students are required to earn a grade of “B-” or better in all elective courses.

iv. Project Requirement
Students must complete a substantial 2-semester capstone project to be eligible for degree certification (16-621/16-622). Project topics will be presented in the first semester at the MSCV seminar; students will be assigned to a project by the end of the first semester. Students are expected to devote part-time effort (12 hours per week) to the project in the Spring and second Fall semester. This project is separate from the internship/practicum that students complete during the Summer term.

v. Program Track
While the majority of MSCV projects are offered by RI and industry sponsors, should the opportunity present itself, students may complete a project offered by the Computer Science Department (CSD) or Lane Center for Computational Biology. Students who choose to complete a project offered by CSD or the Lane Center for Computational Biology will register for the MSCV Project Course under a course number specific to the home Department of the project. Students will be required to complete one of the two electives from the Department in which the project is being offered (i.e. students working on a CSD project must take one elective from CSD, 15-xxx).

B. Internship
The MSCV curriculum requires that students engage in a CV-related Internship during the summer between the 2nd and 3rd semester. The MSCV Program Office will work with industry partners in the computer vision field to identify and present internship opportunities to students.

Students will be registered for 36 units of 16-991 "Internship." The 36 units will factor into the 144-unit total required for graduation. Internships are expected to fall within the summer term as outlined by the University Academic Calendar. The internship must be relevant CV. International students are required to consult with Office of International Education for eligibility before seeking an internship/co-op or signing an offer contract.

All interns are required to submit a final end-of-internship report documenting the work that they carried out as part of their internship. The MSCV Program Director will review the reports and assign a Pass/Fail grade at the end of the summer term.

C. Registration Process
MSCV students are responsible for managing their registration via Student Information Online (SIO). The MSCV Program Manager will assist students with registration for required courses. Students are responsible for registering themselves for elective courses.

i. Drop/Add Procedures
Students must adhere to the drop/add deadlines outlined by the University Academic Calendar.
ii. Withdrawing/Dropping Courses

Students at CMU may drop a course by accessing on-line registration on or before the drop deadline as published in the official university academic calendar. When a course is dropped by the designated deadlines, the course is removed and does not appear on the academic record. After the deadline to drop, students may withdraw from a course by accessing on-line registration on or before the last class day, prior to the beginning of final examinations. After the deadline to drop, a “W” (withdrawal) grade is assigned and appears on the student’s academic record.

Due to the structured curriculum for the MSCV program, it is not recommended that students drop or withdraw from courses. Students who drop/withdraw from a course should consult with the MSCV Program Director and Program Manager to confirm that this is the best option. Students will be required to make-up the dropped course at a later date.

iii. Courses Outside of the Curriculum

The MSCV curriculum is designed to occupy a student’s full-time effort. Students who wish to enroll for additional courses outside of the curriculum will be charged for the extra courses on a per-unit basis. Due to the intensive and collaborative nature of the program, the MSCV Program Office cautions students against enrolling in extra coursework.

iv. PCHE

CMU offers students the opportunity to take courses for credit through the Pittsburgh Council on Higher Education (PCHE) cross-registration program. Both CMU courses and courses taken through the university's cross-registration program will have grades recorded on the transcript and be factored into the QPA. University policy stipulates that students are not permitted to participate in the PCHE program during their final semester at CMU. With the approval of the Program Director, MSCV students are permitted to enroll in up to one relevant elective course through the PCHE program.

D. Advising

MSCV students are advised by the MSCV Program Director and Program Manager. Students are welcome and encouraged to seek faculty and/or other students for specific technical guidance if required.

E. Statute of Limitations

Per University Policy, students will complete all requirements for the Master’s degree within a maximum of seven years from original matriculation as a Master’s student. Once this time-to-degree limit has lapsed, the person may resume work towards a master’s degree only if newly admitted to a currently offered master’s degree program under criteria determined by that program.

Under extenuating circumstances, such as leave of absence, military or public service, family/parental leave, or temporary disability, a college/school may, upon the relevant department's recommendation and with the written approval of the dean (or designate), defer the lapse for a period commensurate with the duration of that interruption. Students pursuing the Master’s degree as part-time students for all semesters of their program, as approved by their program, may also appeal to their program or department for extension of the time to degree limit.

F. Full-time Status and Part-time Status

The MSCV program is designed to be completed full-time in 16 months. To maintain full-time status, the student must register for a minimum of 36 units per semester. Students with fewer than 36 units are considered part-time and will be assessed tuition on a per unit basis. Students who are registered full-time as of the 10th day of classes are expected to remain full-time for the duration of the semester.

The MSCV program offers part-time enrollment at the discretion of the Program Director. The part-time candidate must apply and be accepted into the MSCV program, and commit to completing the entire curriculum within the statute of limitations.
G. Residency Requirements
Students are required to complete the course requirements in their entirety at Carnegie Mellon University’s Pittsburgh campus. MSCV does not offer an option for distance learning. Students are required to be present on campus to complete all course requirements. In many cases, the optional internship will be carried out at an off-site location with an approved industrial partner.

H. Double Counting Courses
Students in the MSCV program are prohibited from double counting courses. A course that has been counted towards another degree cannot be counted towards fulfilling course requirements for MSCV. Courses may not count for more than one requirement within the Master’s program.

I. Waiver Policy
At the discretion of the MSCV Program Director, a student may be permitted to waive a core course requirement. Waivers will be considered if (1) the student provides sufficiently detailed descriptions of the previously taken course (syllabus, etc.), (2) the student can successfully pass a commensurate final exam in the offered MSCV course, as given by the course instructor, and (3) the student would be willing to successfully pass a verbal and interactive discussion/review/test on the various subjects taught in a particular course, as administered by the respective faculty instructor. Should a student obtain a waiver for a course, he/she will still be responsible for completing 144 units. Essentially, the student would be permitted to take an approved elective in place of the core course.

J. Transfer Courses
The MSCV program does not allow students to transfer previously taken courses from other Universities to meet the program requirements. The MSCV courses are tailored to a specific content not typically available in other courses, making it difficult to allow the transfer of previous coursework.

K. Grading Policy
The CMU grading policy is outlined on the University Grading Policy website. MSCV students will be awarded a letter grade for all required courses and electives. Students must earn a grade of “B-” or better in all courses in order for the course to count towards the MSCV degree requirements. Should a student receive a grade that is less than satisfactory in a required course, he/she will be required to retake the course at a later date. Students failing to obtain a satisfactory grade on the second attempt will be terminated from the MSCV program. Should a student receive a grade that is less than satisfactory in an elective class, he/she will be required to make up the units through another elective course. Pass/fail grades are not permitted for formal coursework used to satisfy MSCV requirements, except that students will earn a Pass/fail grade for internship. Audit grades are not permitted for courses used to satisfy MSCV requirements.

i. Academic Standing
At the end of each semester, the MSCV Program Office will review student grades to determine if program standards are being met. Students must maintain a GPA of 3.0 or higher to retain good academic standing in the program. Students dropping below a 3.0 will be required to meet with the MSCV Program Director to develop a plan for improvement. Students failing to rise above a 3.0 in the subsequent semester will be terminated from the MSCV program.

Should a student receive a grade that is less than satisfactory in a required course, he/she will be required to retake the course at a later date. Students are responsible for paying tuition for course retakes. Students failing to obtain a satisfactory grade on the second attempt will be terminated from the MSCV program. Should a student receive a grade that is less than satisfactory in an elective class, he/she will be required to make up the units through another course. Due to the sequential and interactive nature of the MSCV Capstone Course, there is not an opportunity for a retake. Any student failing to satisfactorily pass the Capstone Course will be terminated from the program.
ii. Incomplete Grades
MSCV students are expected to complete all courses during the academic semester in which the course is taken. However, if the instructor agrees, a grade of “I” (incomplete) may be given when a student, for reasons beyond his or her control, is unable to complete the coursework, but the work completed to date is of passing quality and the grade of incomplete provides no undue advantage to that student over other students.

In awarding an “I” grade, an instructor must specify the requirements for completing the work and designate a default letter grade that will be assigned if no further work is submitted. Students must complete the required coursework no later than the end of the following academic semester or sooner if required by prior agreement. The instructor must record the permanent grade by the last day of the examination period of that following semester. Failure to do so will result in Enrollment Services administratively assigning the default grade.

L. Academic Integrity
CMU, The Robotics Institute and MSCV program take a serious approach to academic integrity. RI adheres to the academic integrity policies set forth by CMU. Students should review and familiarize themselves with the University’s policy and expectations for Academic Integrity. Students accused of violating the Academic Integrity policy should review the Responding to Violations webpage to identify the best way to move forward.

The consequences of an academic integrity violation vary depending on the severity of the incident; however, there are several outcomes that impact students during their time on campus that are common to all cases, regardless of the particular details of the offense. Consequences for Academic Integrity violations are outlined here.

Withdrawal of a Degree
The university reserves the right to withdraw a degree even though it has been granted should there be discovery that the work upon which it was based or the academic records in support of it had been falsified. In such a case, the degree will be withdrawn promptly upon discovery of the falsification. The complete reference to this university policy is available here.

M. Teaching Assistantships
If approached by faculty, MSCV students are permitted (not required) to work as a TA in their 2nd and 3rd semester. Students receive a modest stipend as compensation for their work. All graduate students are required to have a certain level of fluency in English before they can instruct in Pennsylvania, as required by the English Fluency in Higher Education Act of 1990. Through this Act, all institutions of higher education in the state are required to evaluate and certify the English fluency of all instructional personnel, including teaching assistants and interns. Prior to working in the classroom, non-native English speakers are required to complete the International Teaching Assistant (ITA) exam via the Intercultural Communication Center (ICC).

N. Switching Programs
Admission to the MSCV program does not in any way signify admission to other RI degree programs. Each of RI’s graduate programs (MSR, MRSD, MSCV, PhD) are separate and have their own application steps, admission criteria, selection processes, and admission decisions. MSCV students may apply to other RI degree programs at any point in their academic career. The MSCV program should not be viewed as a preparatory program for the RI PhD program, but rather as a stand-alone degree program for those primarily interested in a professional career track.

O. Leave of Absence
CMU defines a Leave of Absence (LOA) as leaving the University temporarily with the firm and stated intention of returning (see Student Leave Policy). Students who wish to take a LOA must state their intentions in writing to the MSCV Program Director and Program Manager. Upon receiving the written request, the MSCV Program Office will contact the student to discuss their plans while on leave and to work out any conditions that may be necessary for a
smooth return to CMU. Once all parties are in agreement that LOA is the best way to move forward, the student will be required to complete a Leave of Absence (.pdf) form. The form must include all necessary signatures or the process will not be completed.

Students take a LOA before completing 60% of the semester will be charged tuition based on the number of days completed within the semester (see Tuition Adjustments). There is no tuition adjustment after 60% of the semester is completed. There is no adjustment of the media fee, transportation fee, technology fee, or student activities fee. Students needing an adjustment to the health assessment fee must contact Student Health Services.

Students wishing to return from LOA to resume their studies should follow the Return from Leave Policy and complete a Return from Leave of Absence (.pdf) form. All degree requirements must be completed before the Statute of Limitations for MS students.

P. Withdrawing from Degree Program
CMU defines a withdrawal as leaving the University with no intention of returning (see Student Leave Policy). Students who wish to withdraw from the MSCV program must state their intentions in writing to the MSCV Program Director and Program Manager. The student is then required to complete the Withdrawal (.pdf) form. The form must include all necessary signatures or the process will not be completed.

Students who withdraw before completing 60% of the semester will be charged tuition based on the number of days completed within the semester (see Tuition Adjustments). There is no tuition adjustment after 60% of the semester is completed. There is no adjustment of the media fee, transportation fee, technology fee, or student activities fee. Students needing an adjustment to the health assessment fee must contact Student Health Services.

Q. Enrollment Verification
Enrollment Services is the only University office that can provide an official letter of enrollment, official transcript, and enrollment verification. Enrollment verification can be requested online through The HUB at: http://www.cmu.edu/hub/transcripts/verifications/enrollment.html.

R. Degree Certification
Upon satisfactory completion of 144 units of degree requirements, the Master of Science (MS) degree will be certified by the MSCV Program Manager.
4. Financial Policies

A. Departmental Financial Support
RI does not currently offer any financial support to MSCV students. All accepted students are expected to be fully self-supported, including tuition, fees, health insurance, and any additional costs for books, supplies, room and board.

B. Student Fees
Students are responsible for paying all student fees in a timely manner. Failure to pay fees will result in the inability to register for subsequent semester and/or a hold on the student diploma.

C. Health Insurance
Students are required to maintain health insurance and are responsible for enrolling and paying the balance each year. Information can be found on the Health Services website.

D. Travel & Conference Funding
MSCV does not provide funds for travel or conferences. Students may obtain funding for such activities via an application process provided by GSA and the Provost’s Office for students, student work groups or groups to attend a conference, whether as a participant or as a presenter. The process is managed by the Office of the Assistant Vice Provost for Graduate Education. Students can find more information about the application process and deadlines at: www.cmu.edu/graduate.

E. Additional Sources for Financial Support
MSCV students can apply to be a teaching assistant (TA) for a course if they have taken that class previously and have shown evidence of exceptional mastery of the subject. To show exceptional mastery, an MSCV student should rank within the top 20% of all students in the course. This standard will ensure that students are fully equipped to handle the extra workload of being a TA, in addition to their capstone project. Beyond serving as a TA, part-time jobs and paid side projects are discouraged during the second and third semesters (the duration of the capstone project), as it can adversely affect the quality of student work and, thus, the capstone project. Most summer internships are paid positions.

F. Scholarship/Fellowship Opportunities
Since RI is not able to provide financial assistance, students are encouraged to identify scholarship and/or fellowship opportunities from external agencies. In particular, we encourage students to review and apply for SMART Scholarships funded by the Department of Defense. Students may also review the on-line information provided by the Fellowship and Scholarship Office. This website is an excellent resource for locating an abundance of information regarding available funding for students.
G. Outside Employment
Due to the time consuming curriculum of the MSCV program, students are not advised to accept employment while enrolled in the program as a full-time student. International students must contact the Office of International Education regarding ability to hold employment.

H. University Financial Aid
Graduate students should consult the graduate student financial aid information found here. Graduate students who find themselves in need of immediate funds for emergency situations should contact the Office of the Dean of Student Affairs to inquire about a short-term Emergency Student Loan for supplies, medication, food or other unexpected circumstances. The emergency-based loan is an interest-free loan repayable within 30 days. Students seeking to make payments to their student account in intervals should consult the CMU Payment Plan website.

I. Per Unit Tuition Rate for Additional Courses
The MSCV Program Office discourages students from enrolling in additional coursework. The curriculum is designed to occupy full-time effort and the tuition is based on the standard curriculum. Students interested in enrolling in courses beyond the curriculum must receive Director approval and will be automatically assessed additional tuition for the extra courses. The rate for the 2018-2019 academic year is $660 per unit.
A. Assistance for Individuals with Disabilities
The Office of Disability Resources at Carnegie Mellon University has a continued mission to provide physical and programmatic campus access to all events and information within the Carnegie Mellon community. We work to ensure that qualified individuals receive reasonable accommodations as guaranteed by the Americans with Disabilities Act (ADA) and Sections 503 and 504 of the Rehabilitation Act of 1973. Students who would like to receive accommodations can begin the process through Disability Resources secure online portal or email access@andrew.cmu.edu to begin the interactive accommodation process.

Students with disabilities are encouraged to self-identify with the Office of Disability Resources by contacting Catherine Getchell, 412-268-6121, getchell@cmu.edu to access the services available at the university and initiate a request for accommodations.

B. Protocol for Review of Academic Conflicts
Graduate students should refer to the Graduate Student Appeal and Grievance Procedures for a summary of processes available to graduate students who seek review of academic and non-academic issues. Graduate students are expected to seek informal resolution of all concerns within the Department, unit or program before invoking formal processes. When an informal resolution cannot be reached, a graduate student who seeks further review of the matter is to follow the formal procedures as outlined. The appeal and grievance procedures shall apply to students in all graduate programs of the University. Students should refer to the department specific information in this handbook for department and college information about the administration and academic policies of the program. Students may confer with the graduate student ombudsman, Suzie Laurich-McIntyre, slaurichmcintyre@cmu.edu, on issues of process or other concerns as they navigate conflicts.

C. Policy Against Sexual Harassment and Sexual Assault
Sexual harassment and sexual assault are prohibited by CMU, as is retaliation for having brought forward a concern or allegation in good faith. The policy can be viewed in its entirety at: http://www.cmu.edu/policies/documents/SA_SH.html

If you believe you have been the victim of sexual harassment or sexual assault, you are encouraged to make contact with any of the following resources:

- Sexual Harassment Advisors, found in appendix A of the Policy Against Sexual Harassment and Sexual Assault;
- Survivor Support Network, found in appendix B of the Policy Against Sexual Harassment and Sexual Assault;
- Sexual Harassment Process and Title IX Coordinators, found in section II of the Policy Against Sexual Harassment and Sexual Assault;
- University Police, 412-268-2323
- University Health Services, 412-268-2157
- Counseling & Psychological Services, 412-268-2922

D. Maternity Accommodation Protocol
Students whose anticipated delivery date is during the course of the semester may consider taking time away from their coursework and/or research responsibilities. All female students who give birth to a child while engaged in coursework or research are eligible to take either a short-term absence or formal leave of absence. Students in course work should consider either working with their course instructor to receive incomplete grades, or elect to drop to part-time status or to take a semester leave of absence. Students engaged in research must work with their faculty to develop plans for the research for the time they are away.
Students are encouraged to consult with relevant university faculty and staff as soon as possible as they begin making plans regarding time away. Students must contact the Office of the Dean of Student Affairs to register for Maternity Accommodations. Students will complete an information form and meet with a member of the Dean’s Office staff to determine resources and procedures appropriate for the individual student. Planning for the student’s discussion with her academic contact(s) (advisor, associate dean, etc.) will be reviewed during this meeting.

E. Grandfather Policy
When policies are changed it is because the department believes the new rules offer an improvement. Currently enrolled students whose degree program is affected by a change in policy may choose to be governed by the old policy that was in place at the time of their matriculation or the new policy. In case degree requirements are changed and certain courses are no longer offered, the department will try to find some compromise that allows those students to satisfy the original requirements.

F. Vacations and Time-Off
Students are expected to follow the academic calendar to determine appropriate vacation time.
Appendix A

A. Key Offices for Graduate Student Support
   i. Office of the Assistant Vice Provost for Graduate Education

   www.cmu.edu/graduate; grad-ed@cmu.edu

   The Office of the Assistant Vice Provost for Graduate Education, AVPGE, directed by Suzie Laurich-McIntyre, Ph.D., Assistant Vice Provost for Graduate Education, provides central support for graduate students in a number of roles. These include: being an ombudsperson and resource person for graduate students as an informal advisor; resolving formal and informal graduate student appeals; informing and assisting in forming policy and procedures relevant to graduate students; and working with departments on issues related to graduate students and implementation of programs in support of graduate student development.

   The Office of the AVPGE often partners with the division of Student Affairs to assist graduate students with their Carnegie Mellon experience. Senior members of the student affairs staff are assigned to each college (college liaisons) and are often consulted by the Assistant Vice Provost for Graduate Education and departments on an individual basis to respond to graduate student needs.

   The Office of the Assistant Vice Provost for Graduate Education (AVPGE) offers a robust schedule of professional development opportunities. Some are geared towards a specific population (master’s students, PhD students at the beginning of their program, graduate students seeking tenure track positions, etc.) and others are open to all graduate students (time management, balancing, staying healthy). A full schedule of programs can be found at: http://www.cmu.edu/graduate/.

   The Office of the AVPGE also coordinates several funding programs, and academically focused seminars and workshops that advise, empower and help retain all graduate students, particularly graduate students of color and women in the science and technical fields. The fundamental goals of our programs have been constant: first, to support, advise and guide individual graduate students as they work to complete their degrees; second, to contribute to the greatest degree possible to the diversification of the academy. Visit the Graduate Education website for information about:

   • Conference Funding Grants
   • Graduate Small Project Help (GuSH) Research Funding
   • Graduate Student Professional Development: seminars, workshops and resources
   • Graduate Women Gatherings (GWG)
   • Inter-university Graduate Students of Color Series (SOC)

   ii. Office of the Dean of Student Affairs

   www.cmu.edu/student-affairs/index.html

   The Office of the Dean provides central leadership of the metacurricular experience at Carnegie Mellon. The offices that fall under the division of Student Affairs led by Vice President and Dean of Student Affairs Gina Casalegno, include (not an exhaustive list):

   • Career and Professional Development Center
   • Cohon University Center
   • Counseling & Psychological Services (CAPS)
   • Dining Services
• Housing Services
• Office of Integrity and Community Standards
• Office of International Education (OIE)
• Student Activities
• University Health Services

Graduate students will find the enrollment information for Domestic Partner Registration and Maternity Accommodations in the Office of the Dean of Student Affairs and on the website. The Office of the Dean of Student Affairs also manages the Emergency Student Loan (ESLs) process. The Emergency Student Loan service is made available through the generous gifts of alumni and friends of the university. The Emergency Student Loan is an interest-free, emergency-based loan repayable within 30 days. Loans are available to enrolled students for academic supplies, medication, food or other expenses not able to be met due to unforeseeable circumstances. The Office of Integrity and Community Standards also provides consultation, support, resources and follow-up on questions and issues of Academic Integrity: www.cmu.edu/academic-integrity.

iii. Assistance for Individuals with Disabilities
www.cmu.edu/hr/eos/disability/
Students with disabilities are encouraged to self-identify with Equal Opportunity Services by contacting Larry Powell, 412-268-2013, lpowell@andrew.cmu.edu to access the services available at the university and initiate a request for accommodations.

iv. Eberly Center for Teaching Excellence & Educational Innovation
www.cmu.edu/teaching
Support for graduate students who are or will be teaching is provided in many departments and centrally by the Eberly Center for Teaching Excellence & Educational Innovation. The Eberly Center offers activities for current and prospective teaching assistants as well as any graduate students who wish to prepare for the teaching component of an academic career. The Center also assists departments in creating and conducting programs to meet the specific needs of students in their programs. Specific information about Eberly Center support for graduate students can be found at: www.cmu.edu/teaching/graduatestudentsupport/index.html.

v. Carnegie Mellon Ethics Hotline
The health, safety and well-being of the university community are top priorities at Carnegie Mellon University. CMU provides a hotline that all members of the university community should use to confidentially report suspected unethical activity relating to financial matters, academic and student life, human relations, health and campus safety or research.

Students, faculty and staff can anonymously file a report by calling 877-700-7050 or visiting www.reportit.net (user name: tartans; password: plaid). All submissions will be reported to appropriate university personnel.
The hotline is NOT an emergency service. For emergencies, call University Police at 412-268-2323.

vi. Graduate Student Assembly
www.cmu.edu/stugov/gsa/index.html
The Carnegie Mellon Student Government consists of an Executive Branch and a Legislative Branch. This is the core of traditional student government, as governed by the Student Body Constitution. The Executive Branch serves the entire student body, graduate and undergraduate, and consists of one president and four vice-presidents. The Legislative Branch for graduate students, The Graduate Student Assembly (GSA) passes legislation, allocates student activities funding, advocates for legislative action locally and in Washington
D.C. on behalf of graduate student issues and needs, and otherwise acts on behalf of all graduate student interests. GSA also contributes a significant amount of funding for conferences and research, available to graduate students through application processes managed by the Office of the Assistant Vice Provost for Graduate Education. GSA also plans various social opportunities for graduate students and maintains a website of graduate student resources on and off-campus, www.cmu.edu/stugov/gsa/Resources. Each department has representation on GSA and receives funding directly from GSA’s use of the student activities fee for departmental activities for graduate students. The department rep(s) is the main avenue of graduate student representation of and information back to the graduate students in the department.

vii. Intercultural Communication Center (ICC)
www.cmu.edu/icc/
The Intercultural Communication Center (ICC) is a support service offering both credit and non-credit classes, workshops, and individual appointments designed to equip nonnative English speakers (international students as well as international students who attended high school and/or undergraduate programs in the U.S.) with the skills needed to succeed in academic programs at Carnegie Mellon. In addition to developing academic literacy skills such as speaking, reading and writing, students can learn more about the culture and customs of the U.S. classroom. The ICC also helps international teaching assistants (ITAs) who are non-native English speakers develop fluency and cultural understanding to teach successfully at Carnegie Mellon and provides ITA testing, required testing indicating a nonnative speaking student has a language proficiency required before being allowed to work with undergraduates in classes, labs or individual meetings.

viii. Office of International Education (OIE)
www.studentaffairs.cmu.edu/oie/
Carnegie Mellon hosts international graduate and undergraduate students who come from more than 90 countries. Office of International Education (OIE) is the liaison to the University for all non-immigrant students and scholars. OIE provides many services including: advising on personal, immigration, academic, social and acculturation issues; presenting programs of interest such as international career workshops, tax workshops, and cross-cultural and immigration workshops; supporting international and cultural student groups such as the International Student Union and the International Spouses and Partners Organization; maintaining a resource library that includes information on cultural adjustment, international education and statistics on international students in the United States; posting pertinent information to students through email and the OIE website, and conducting orientation programs.

ix. Veterans and Military Community
http://www.cmu.edu/veterans/
Military veterans are a vital part of the Carnegie Mellon University community. Graduate students can find information on applying veteran education benefits, campus services, veteran’s groups at CMU, non-educational resources and international military service information through the Veterans and Military Community website. There are also links and connections to veteran resource in the Pittsburgh community. The Naval ROTC and Veteran Affairs Offices are located at 4615 Forbes Avenue, uro-vaedbenefits@andrew.cmu.edu, 412-268-8747.

B. Key Offices for Academic & Research Support
i. Computing and Information Resources
www.cmu.edu/computing
Computing Services provides a comprehensive computing environment at Carnegie Mellon. Graduate students should seek Computing Services for information and assistance with your Andrew account, network access, computing off-campus, campus licensed software, email, calendar, mobile devices, computer security, cluster services and printing. Computing Services can be reached at it-help@cmu.edu.
The Carnegie Mellon Computing Policy establishes guidelines and expectations for the use of computing, telephone and information resources on campus. The policy is supported by a number of guidelines graduate students should know. The policy and guidelines are available at: www.cmu.edu/computing/guideline/index.html.

ii. Research at CMU
www.cmu.edu/research/index.shtml
The primary purpose of research at the university is the advancement of knowledge in all fields in which the university is active. Research is regarded as one of the university’s major contributions to society and as an essential element in education, particularly at the graduate level and in faculty development. Research activities are governed by several university policies. Guidance and more general information is found by visiting the Research at Carnegie Mellon website.

iii. Office of Research Integrity & Compliance
www.cmu.edu/research-compliance/index.html
The Office of Research Integrity & Compliance (ORIC) is designed to support research at Carnegie Mellon University. The staff work with researchers to ensure research is conducted with integrity and in accordance with federal and Pennsylvania regulation. ORIC assists researchers with human subject research, conflicts of interest, responsible conduct of research, export controls, intellectual property rights and regulations, and institutional animal care & use. ORIC also consults on, advises about and handles allegations of research misconduct.

C. Key Offices for Health, Wellness & Safety

i. Counseling & Psychological Services
www.studentaffairs.cmu.edu/counseling
Counseling & Psychological Services (CAPS) affords the opportunity for students to talk privately about issues that are significant for them in a safe, confidential setting. Students sometimes feel confused about why they are feeling upset and perhaps confused about how to deal with it. An initial consultation with a CAPS therapist will clarify options and provide a recommendation to the appropriate mental health resource at Carnegie Mellon or the larger Pittsburgh community. CAPS services are provided at no cost. Appointments can be made in person or by telephone, 412-268-2922.

ii. Health Services
www.cmu.edu/HealthServices/
University Health Services (UHS) is staffed by physicians, advanced practice clinicians and registered nurses who provide general medical care, allergy injections, first aid, gynecological care and contraception as well as on-site pharmaceuticals. The CMU student insurance plan covers most visit fees to see the physicians and advanced practice clinicians & nurse visits. Fees for prescription medications, laboratory tests, diagnostic procedures and referral to the emergency room or specialists are the student’s responsibility and students should review the UHS website and their insurance plan for detailed information about the university health insurance requirement and fees. UHS also has a registered dietician and health promotion specialists on staff to assist students in addressing nutrition, drug and alcohol and other healthy lifestyle issues. In addition to providing direct health care, UHS administers the Student Health Insurance Program. The Student Health Insurance plan offers a high level of coverage in a wide network of health care providers and hospitals. Graduate students should contact UHS to discuss options for health insurance for spouses, domestic partners and dependents. Appointments can be made by visiting UHS’s website or by telephone, 412-268-2157.
iii. University Police
http://www.cmu.edu/police/
412-268-2323 (emergency only), 412-268-6232 (non-emergency)
The University Police Department is located at 300 South Craig Street, Room 199 (entrance is on Filmore Street). The department’s services include police patrols and call response, criminal investigations, shuttle and escort services, fixed officer and foot officer patrols, event security, and crime prevention and education programming. Visit the department’s website for additional information about the staff, escort and shuttle, emergency phone locations, crime prevention, lost and found, finger print services, and annual statistic reports.

Shuttle and Escort Services
University Police coordinates the Shuttle Service and Escort Service provided for CMU students, faculty, and community. Full information about these services, stops, routes, tracking and schedules can be found online at: http://www.cmu.edu/police/shuttleandescort/

Carnegie Mellon University publishes an annual campus security and fire safety report describing the university’s security, alcohol and drug, sexual assault, and fire safety policies and containing statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. Graduate students can obtain a copy by contacting the University Police Department at 412-268-6232. The annual security and fire safety report is also available online at www.cmu.edu/police/annualreports.

D. The WORD
http://www.cmu.edu/student-affairs/theword//

The WORD is Carnegie Mellon University’s student on-line handbook and is considered a supplement to the department (and sometimes college) handbook. The WORD contains campus resources and opportunities, academic policy information and resources, community standards information and resources. It is designed to provide all students with the tools, guidance, and insights to help you achieve your full potential as a member of the Carnegie Mellon community. Information about the following is included in The WORD (not an exhaustive list), so graduate students are encouraged to bookmark this site and refer to it often. University policies can also be found in full text at: http://www.cmu.edu/policies/.

Carnegie Mellon Vision, Mission
Carnegie Code
Academic Standards, Policies and Procedures
   Educational Goals
   Academic and Individual Freedom
   Statement on Academic Integrity
   Standards for Academic & Creative Life
Assistance for Individuals with Disabilities
Master’s Student Statute of Limitations
Conduct of Classes
Copyright Policy
Cross-college & University Registration
Doctoral Student Status Policy
Evaluation & Certification of English Fluency for Instructors