# Major Course Requirements (30-31 Units)

**CORE**† (18 units total, minimum 3 units and maximum 6 units per core category)

<table>
<thead>
<tr>
<th>Computing Systems</th>
<th>Software Systems</th>
<th>Theory and Algorithms</th>
<th>Applications</th>
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<tr>
<td>525 Principles of Computer Networks</td>
<td>520 Program Languages</td>
<td>545 Design and Analysis of Algorithms</td>
<td>533 Computer Graphics</td>
</tr>
<tr>
<td>552 Adv OS</td>
<td>522 Parallel and Distributed Computing</td>
<td>573 Computation</td>
<td>537 Computational Geometry</td>
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<td>553 Compilation</td>
<td>560 Database Systems</td>
<td></td>
<td>577 Introduction to Computer Vision</td>
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<tr>
<td>576 Computer Architecture</td>
<td>Implementation</td>
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</table>

**ADVANCED TOPICS:**‡ (3 units)

(620, 630, 645, 650, 652)

**NON-THESIS OPTION**

Electives (9 units ≥ 500)

**THESIS OPTION**

Electives (3 units ≥ 500)

910 Thesis (6 units)

*Final Oral Exam*

**Deficiency**

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‡Advanced Topic requirement is not met by Seminar, Colloquium, Internship, Practicum, Workshop or Independent Studies courses.

†Courses taken to fulfill Core requirements cannot also be used to fulfill other course requirements

*Enrollment for 1 unit of C SC 695A colloquium and attendance of at least 10 colloquia talks.
Overall Course Requirements

- 30–31 units total, divided into core courses (18 units), advanced topics (3 units), and electives (9 units). See Thesis Option described below.
- At least half the required units (5 courses) must be in courses graded A,B,C,D,E. That is, no more than half can be graded S/P,C,D,E or S/P,E (typically Independent Study or Thesis courses). No "Pass/Fail" courses allowed.
- Specific course requirements summarized on reverse side. Specific courses can be waived if equivalent material has been taken elsewhere, and the required units can be made up by electives.
- Elective courses must be approved by your advisor, and must contribute to a degree in Computer Science. Up to two electives can be approved from courses outside this Department; any more requires approval of the Department Head.
- The Graduate College permits at most six units of 400-level (non-graduate) courses to be part of the degree program; such units must be in courses outside of the major department.
- Deficiencies must be cleared by advisor.
- Cumulative graduate Grade Point Average (GPA) to graduate is $\geq 3.00$. Grade replacement (GRO) on one CS course for which a D or E was received is permitted.
- Grades in core courses must be either an A or a B.

Non-Thesis Option

- Requires 1 unit of C SC 695a and attendance of 10 colloquia. Colloquia attendance can take place at any time during the program of study and is highly recommended that students do not wait until the final semester to start fulfilling this requirement. Student does not need to be enrolled in 695A to attend and receive credit for attendance.

Thesis Option

- 30 units as above, but 6 units of Thesis (910) replace 6 elective units, and the Final Examination is an oral thesis defense.
- This program option requires approval by faculty. Approval is granted only to the most qualified and well-prepared students.
- The thesis research must be a contribution to knowledge; routine projects do not qualify.
- Prospective Thesis students must form a Master’s Committee consisting of a thesis advisor and two additional faculty members. At least two members must be from Computer Science.
- The Final Examination is an oral defense of the thesis work, administered by the student’s Committee. Results must be submitted to the Graduate College.

Transfer of Work from Elsewhere

- At least 24 units of graduate credit must be completed at Arizona.
- Transfer courses must be approved by advisor if listed on Master’s Plan of Study.
- Only grades of A or B can be transferred. Only graduate courses can be transferred. Extension courses cannot be transferred. Quarter system units will be proportionally converted to semester units.

Enrollment Policies

- All requirements must be completed within a 6-year period (including transferred work).
- A minimum number of units are required each semester. See http://grad.arizona.edu/Current_Students/Policies/Full-Time_Status.php and http://internationalstudents.arizona.edu/immigration_info.shtml
- Residency requirements enforced by Degree Check at submission of Completion Form.
- Student must be registered in all semesters in which exams are taken.

Other Requirements

- Refer to the Graduate College document A Handbook for Completing the Steps to Your Degree (http://grad.admin.arizona.edu/degreecert/handbooks/masters/) for other Graduate College requirements and due dates.
- Refer to the section on Degree Certification Procedures in the Department’s Graduate Student Handbook (http://www.cs.arizona.edu/programs/graduate/handbook/) for other Computer Science Department requirements and due dates. The "Master’s Degree Checklist" itemizes procedures and deadlines for filing the Master’s Plan of Study, for submitting the completed thesis and for taking the Final Thesis Defense.