Dear Class of 2021,

On behalf of the faculty and staff of the School of Computing, I warmly welcome you to Clemson! We are excited to have you as a student in one of our undergraduate degree programs and look forward to helping you achieve your academic goals.

As you begin your first semester at Clemson, please be aware of the resources available to help you manage your academic workload. Every faculty member in the School of Computing has office hours to help answer questions that were not covered in class. Tutoring assistance for introductory courses is provided both by the School of Computing and the Academic Success Center. Your academic advisor will also be meeting with you to discuss immediate and long-term career goals.

As with any major life transition, your journey at Clemson involves a learning curve. Our undergraduate student services team has assembled this orientation manual to assist you in learning about the policies and procedures in the School of Computing. In addition, they offer tips and tricks to make the most of your experience at Clemson. Please do not hesitate to ask any one of our advising staff if you have any questions or concerns.

Go Tigers!

Dr. Eileen Kraemer
C. Tycho Howle Director
School of Computing
Clemson Terminology

Any organization will have terminology that differs from another. In this section, we introduce you to some terms you might encounter at Clemson or in this orientation manual.

<table>
<thead>
<tr>
<th>Term</th>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Success Center</td>
<td>ASC</td>
<td>Provides resources for tutoring, workshops, and supplemental instruction. Includes writing center and writing studio services.</td>
</tr>
<tr>
<td>Clemson Computing and Information Technology</td>
<td>CCIT</td>
<td>Clemson’s organization that administers and maintains email, internet, and other campus technology resources.</td>
</tr>
<tr>
<td>Course Map</td>
<td></td>
<td>Semester-by-semester listing of degree requirements including major and general education requirements.</td>
</tr>
<tr>
<td>Computer Science Requirement</td>
<td></td>
<td>Catalog term used to indicate a selected technical elective.</td>
</tr>
<tr>
<td>Cross Cultural Awareness</td>
<td>CCA</td>
<td>General education requirement to demonstrate the ability to critically compare and contrast cultures in historical and/or contemporary contexts</td>
</tr>
<tr>
<td>DegreeWorks</td>
<td></td>
<td>Degree auditing software used by advisors and students to monitor progress to degree completion.</td>
</tr>
<tr>
<td>Duo Security</td>
<td></td>
<td>Name of the two-factor authentication system used to gain access to iROAR and DegreeWorks. See: <a href="https://2fa.app.clemson.edu">https://2fa.app.clemson.edu</a></td>
</tr>
<tr>
<td>Distributed Competencies</td>
<td></td>
<td>Combination of General Education and major coursework to demonstrate critical thinking, ethical judgement, and both written and oral communication.</td>
</tr>
<tr>
<td>Enrolled Student Services</td>
<td>ESS</td>
<td>Department within the Office of the Registrar’s Office that processes course substitutions and performs degree certifications</td>
</tr>
<tr>
<td>iROAR</td>
<td></td>
<td>Name for the Web-based registration, catalog, and student account system, accessible through iROAR or <a href="http://my.clemson.edu">http://my.clemson.edu</a></td>
</tr>
<tr>
<td>Peer-Assisted Learning</td>
<td>PAL</td>
<td>Peer-led study sessions for students in historically difficult courses, provided via the ASC.</td>
</tr>
<tr>
<td>Science, Technology, and Society</td>
<td>STS</td>
<td>General education requirement to demonstrate an understanding of issues created by the complex interactions among science, technology, and society.</td>
</tr>
<tr>
<td>Student Accessibility Services</td>
<td>SAS</td>
<td>Campus resource that coordinates reasonable accommodations for students with identified disabilities</td>
</tr>
<tr>
<td>Transfer Course Evaluation Lookup Table</td>
<td>TCEL</td>
<td>Searchable Web-based interface that indicates evaluated transfer coursework.</td>
</tr>
<tr>
<td>Undergraduate Announcements</td>
<td></td>
<td>Clemson course catalog</td>
</tr>
</tbody>
</table>
GENERAL POLICIES

CONTACT INFORMATION

Each semester, verify that your contact information (including your home/permanent address, local address, and phone numbers) are accurate. You may access the contact information via iROAR or through the My.Clemson Web portal (http://my.clemson.edu). Clemson University and the School of Computing may need to use this information in order to notify you of important information.

E-MAIL AND COMMUNICATION

Email is the official form of communications between you, Clemson University, and the School of Computing. Information about classes, meetings, bills, scholarships, social events, etc. will be sent to your university email address. The School of Computing also maintains email listservs for each major. These listservs are automatically generated each semester with currently enrolled students. Note, if you change your major into a School of Computing degree program later in the semester, your change of major does not typically take effect until the following semester. Be familiar with the following email policies:

- Make sure your Clemson email address is in top operational status (e.g., not over quota, not set up to incorrectly forward email).
- Check your Clemson email address at least once a day.
- Once an email is sent to your Clemson email address, it is considered received.
- All academic-related email between you and Clemson (including your professors, advisors, and administrators) should be sent from your official Clemson email address.

If you have trouble with your email account, contact the Help Desk at ITHELP@clemson.edu or 864-656-3494.

TWO-FACTOR AUTHENTICATION AND DUO

As part of Clemson University’s strategic plan to secure sensitive information, two-factor authentication is required in order for students, faculty, and staff to access registration and student record systems such as iROAR and Degree Works. Please make sure you have this completed prior to any times you will need to access these systems (such as for class registration). Visit https://2fa.app.clemson.edu for more information.

FINANCIAL DEADLINES

Pay close attention to paperwork and deadline requirements for Student Financial Services. If you do not pay all of your fees by the date due, the Registrar will cancel your entire schedule. You should also make sure that you have met all of the deadlines and paperwork requirements for scholarships – your schedule will be canceled if the scholarship is delayed. There is no guarantee that you will be able to get back into the same classes after your schedule is canceled. A canceled schedule will result in a major and stressful hassle that you want to avoid.

LAPTOP REQUIREMENT

Clemson University requires all students to have a laptop and Clemson’s Computer and Information Technology (CCIT) department publishes a list of recommended laptops (http://www.clemson.edu/ccit/help_support/laptops/). For the 2017-2018 academic year, any of the laptops (aside from the “value” Lenovo 13.3’’ laptop) will be appropriate for use with School of Computing courses. If you choose to buy a laptop outside of these recommendations, we generally
recommend a minimum of 8 GB of RAM, an Intel current generation i5-or-better processor, a 3 or 4-year warranty, and a display resolution of at least 1920 x 1080. Your course instructors will indicate their laptop usage policies in class.

STUDENT ISSUES / CONCERNS

Clemson University and the School of Computing have mechanisms to help resolve student concerns, which may include (but are not limited to):

- Academic Forgiveness
- Medical issues
- Withdrawing out of classes

The School of Computing advises students to schedule a meeting with their academic advisor or the Undergraduate Program Coordinator to discuss the issue and determine the best route of action to take. For issues with grade disputes, we recommend you first discuss your concerns with your course instructor first.

STUDENT ORGANIZATIONS

Students in the School of Computing have several extra-curricular organizations available to join. For more information on when meetings occur (or how to join an organization), please visit the Undergraduate Programs part of the School of Computing Website.

Clemson University’s ACM Chapter is a professional and social organization that works to bring the department together as a community and helps bring opportunities to its members. Members pay $20 a year for dues. The organization’s activities include company speakers, career workshops, social activities (such as barbecues, bowling, wings at Explorer’s, and more), and more. ACM is an excellent opportunity for freshmen to meet other students in their major. The people you meet in ACM will be more than willing to help you along the way to your degree, and you will have some fun in the process.

Students in the School of Computing are in the process of starting the ACM-W chapter for Clemson. ACM-W is a global organization that supports, celebrates and advocates for Women in Computing. Our local chapter will promote all these goals and build a community for female students in the School of Computing that fosters collaboration, mentorship programs and celebrates diversity.

The Clemson University Cyber Security team seeks to actively expand the resources available to students with an interest in Cyber Security providing the tools and skills used in the cyber security industry. We accomplish these goals by training in simulated environments to harden computer security utilizing real world stratagems and compete in “capture the flag” competitions that are an offensive assault on a computer network.

Upsilon Pi Epsilon (UPE) is the international honor society for the computing sciences. The organization is invitation only and does inductions each semester. The requirements differ for each class. As a sophomore, you must have an overall GPA of 3.0 or higher, a computer science GPA of 3.75 or higher, and at least 15 hours of computer science credit. As a junior, you must have an overall GPA of 3.00 or higher, a computer science GPA of 3.50 or higher, and at least 15 hours of computer science credit. For seniors, you must have an overall GPA of 3.0 or higher, a computer science GPA of 3.50 or higher, and at least 15 hours of computer science credit.
ACADEMIC POLICIES

MANAGING YOUR ACADEMIC CAREER

Advisors from the School of Computing’s Academic Services help you with course and career planning, but ultimately you are responsible for your academic careers. That is, you as a student are responsible for fulfilling the relevant requirements of your degree, which includes required coursework and grade requirements (typically C or higher in major coursework—please see the Undergraduate Announcements for the exact requirements for your degree).

① Pro-Tip: Use this folder to store your important registration/academic information. Keep it in a safe place. Each semester, as you prepare to register for the following semester, all your materials will be in one place.

ACADEMIC ADVISING POLICY

The School of Computing requires all of its declared majors to meet with an academic advisor prior to being cleared for class registration. Students should come to their academic advising appointments prepared (e.g., reviewed their DegreeWorks progress, assembled a list of potential courses to take). Due to a limited number of advising appointments, any student who fails to show up to a scheduled advising appointment may be restricted from scheduling any other appointments and will need to come during their advisor’s walk-in/office hours. If you know in advance that you are unable to make your appointment, please cancel the appointment and notify your advisor ahead of time. Academic and career advisement requires a dialog between the advisor and advisee; as a result, students are required to be advised in-person.

SHADOW MAJOR POLICY

While the School of Computing major is considered an “open major”, several other majors on campus are “closed”, such as economics or mechanical engineering. If you decide that a School of Computing major is not the right fit for you and wish to change majors to a closed major, you will still need to be cleared for registration by your School of Computing advisor until you are admitted into the major. Your advisor will not clear you unless you provide evidence that you have spoken to someone in your intended major for advisement.

ADVISING STAFF

<table>
<thead>
<tr>
<th>Advisor</th>
<th>Role &amp; Academic Advisor</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Chris Plaue</td>
<td>Undergraduate Program Coordinator &amp; Academic Advisor</td>
<td><a href="mailto:cplaue@clemson.edu">cplaue@clemson.edu</a></td>
</tr>
<tr>
<td>Dr. Yvon Feaster</td>
<td>Lecturer &amp; Academic Advisor</td>
<td><a href="mailto:yfeaste@clemson.edu">yfeaste@clemson.edu</a></td>
</tr>
<tr>
<td>Mrs. Gail Grieger</td>
<td>Associate Coordinator &amp; Academic Advisor</td>
<td><a href="mailto:ggriege@clemson.edu">ggriege@clemson.edu</a></td>
</tr>
<tr>
<td>Dr. Rose Lowe</td>
<td>Senior Lecturer &amp; Academic Advisor</td>
<td><a href="mailto:rlowe@clemson.edu">rlowe@clemson.edu</a></td>
</tr>
<tr>
<td>Mr. Kevin Plis</td>
<td>Lecturer &amp; Academic Advisor</td>
<td><a href="mailto:kplis@clemson.edu">kplis@clemson.edu</a></td>
</tr>
<tr>
<td>Mr. Sal LaMarca</td>
<td>Lecturer &amp; Academic Advisor</td>
<td><a href="mailto:slamarc@clemson.edu">slamarc@clemson.edu</a></td>
</tr>
</tbody>
</table>
The advising team for the School of Computing is listed above. To view your assigned advisor, log into DegreeWorks via iROAR and check the Advisor field. As you progress along your degree, we may reassign you to a new advisor who can offer you additional insight into your intended career path.

Each semester, we notify students via email of when to start signing up for advising appointments. Refer to the directions in the email on how to use the online appointment system to schedule an appointment.

If you need to schedule an appointment outside of pre-registration advising, you may email your advisor at the address above.

REGISTERING FOR CLASSES

Students are assigned specific days and times (“time tickets”) in which they may use iROAR to register for classes. You are able to check your time by logging into iROAR, clicking on Student, then Registration. Time tickets are determined on earned credit hours plus the hours in which you are currently enrolled in.

Before you attempt to register for classes, you should log into iROAR and check your “Registration Status” to determine if you have any holds that prevent you from registration. Holds may result from not paying your tuition and fees, a health services bill, an unpaid parking ticket, or similar situation. Typically, a contact phone number is displayed next to the hold.

Please note that once you register for your classes, academic departments (including the School of Computing) reserve the right to manage enrollment. This means that courses can be canceled for low enrollment, an over-enrolled course may be split into multiple sections, an instructor can be reassigned to a different course, etc. Signing up for a class section with an instructor is not a guarantee of that instructor teaching the course. In extremely rare instances, a class time may need to be changed due to a mitigating circumstance.

In exceptional situations involving an over-enrolled course, we may create an additional section of the class at an alternate time. We may first ask for volunteers to move to the new section but the School of Computing does reserve the right to move you into a new section if your schedule permits. Our goal is to ensure that all students are provided access to required courses to graduate on-time and to reduce class sizes if possible.

CREATING YOUR ACADEMIC SCHEDULE

CHOOSING YOUR COMPUTER SCIENCE COURSE

Your CMPT score, AP or transfer credit, and background determine your first course in Computer Science:

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
<th>Course</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP Computer Science AB</td>
<td>5</td>
<td>CPSC 2120</td>
<td>Data structures – assumes proficiency in C/C++.</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>CPSC 1070</td>
<td>Accelerated course in C/C++.</td>
</tr>
<tr>
<td>AP Computer Science A</td>
<td>3-5</td>
<td>CPSC 1070</td>
<td>Accelerated course in C/C++.</td>
</tr>
</tbody>
</table>
CHOOSING YOUR COURSES

MATHEMATICS

Your selection of the first math class to start with is determined by:
1. score on the Clemson Math Placement Test (CMPT)
2. choice of major (CS versus CIS or BA)
3. AP and/or transfer courses
4. SAT Score

There are two calculus tracks available depending on your major:
- MATH 1060 & MATH 1080: calculus oriented towards science & engineering problems
- MATH 1020 & MATH 2070: calculus oriented towards business applications

Students who are in the Bachelor of Science in Computer Science (BS-CS) degree MUST take the MATH 1060 & 1080 track. Students enrolled in the Bachelor of Science in Computer Information Systems (BS-CIS) or the Bachelor of Arts in Computer Science (BA-CS) degree may take either track. A BA-CS or BS-CIS student who wants to keep his/her options open for transferring to the BS-CS major, or a BA-CS or BS-CIS student who may later take the graphics courses and/or who is interested in the graduate program in Digital Production Arts should also take the MATH 1060/1080 track.

Based on your CMPT score you may need to take a preparatory course before starting MATH 1020 (e.g. MATH 1990) or 1060 (e.g. MATH 1040 or 1050).

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
<th>MTHS 1060/1080 Track (CS/CIS/BA)</th>
<th>MTHS 1020/2070 Track (CIS/BA Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus AB</td>
<td>4-5</td>
<td>MATH 1080</td>
<td>MATH 2070</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>MATH 1060</td>
<td>MATH 2070</td>
</tr>
<tr>
<td>CMPT</td>
<td>80-100</td>
<td>MATH 1060</td>
<td>MATH 1020</td>
</tr>
<tr>
<td></td>
<td>65-79</td>
<td>MATH 1040</td>
<td>MATH 1020</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>MATH 1050</td>
<td>MATH 1020</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>MATH 1050</td>
<td>MATH 1010</td>
</tr>
<tr>
<td></td>
<td>0-49</td>
<td>MATH 1050</td>
<td>MATH 1990</td>
</tr>
</tbody>
</table>

The Orientation Planning Sheet will assist you in determining which fall math course you should register.
NATURAL SCIENCE COURSES

Your natural science options are related to your major. If you are a BS-CIS or BA-CS major but later switch to the CS degree program, the science you select now can be used as part of the 14 hours of natural science required by the CS program – so you do not need to worry about that at this point. If you are interested in eventually entering the Digital Production Arts graduate program, the Physics with Calculus sequence is recommended, which starts with PHYS 1220/1240.

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BS-CS)

The BS-CS requires 8 hours selected from the same science with labs, and an additional 6 hours selected from the same or other sciences. You must select the first course of the 8-hour sequence from the following:

<table>
<thead>
<tr>
<th>Science</th>
<th>Lecture</th>
<th>Lab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BIOL 1030</td>
<td>BIOL 1050</td>
<td>Standard introduction to Biology</td>
</tr>
<tr>
<td></td>
<td>BIOL 1100</td>
<td>BIOL 1101</td>
<td>Generally premed/biology majors</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CH 1010</td>
<td>CH 1011</td>
<td>Standard introduction to Chemistry*</td>
</tr>
<tr>
<td>Geology</td>
<td>GEOL 1010</td>
<td>GEOL 1030</td>
<td>Standard Introduction to Geology</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS 1220</td>
<td>PHYS 1240</td>
<td>Calculus based physics, must have completed MATH 1060</td>
</tr>
</tbody>
</table>

*Must score a “60” or better on the CMPT.

Note: If you are a BS-CS major, you could also select any of the courses below for the BS-CIS or BA-CS program. These would become part of the additional 6 hours of natural science you need to take. You will eventually have to complete a two-semester sequence (8 hours) with labs that starts with one of the courses above. In addition, if you take CH 1050 or PHYS 2070/2090, you cannot then take CH 1010 or PHYS 1220/1240 without losing credit (only one counts).

BACHELOR OF SCIENCE IN COMPUTER INFORMATION SYSTEMS (BS-CIS)
BACHELOR OF ARTS IN COMPUTER SCIENCE (BA-BS)

The BS-CIS and BA-CS programs require 7 hours of natural science. One course must include a lab and you should select from the following table:

<table>
<thead>
<tr>
<th>Science</th>
<th>Lecture</th>
<th>Lab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BIOL 1030</td>
<td>BIOL 1050</td>
<td>Standard introduction to Biology</td>
</tr>
<tr>
<td></td>
<td>BIOL 1100</td>
<td>BIOL 1101</td>
<td>Generally premed/biology majors</td>
</tr>
<tr>
<td></td>
<td>BIOL 1220</td>
<td></td>
<td>Keys to Biodiversity</td>
</tr>
<tr>
<td></td>
<td>BIOL 1230</td>
<td></td>
<td>Keys to Human Biology</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CH 1010</td>
<td>CH 1011</td>
<td>Standard introduction to Chemistry*</td>
</tr>
<tr>
<td></td>
<td>CH 1050</td>
<td>CH 1051</td>
<td>Chemistry in everyday life</td>
</tr>
<tr>
<td>Geology</td>
<td>GEOL 1010</td>
<td>GEOL 1030</td>
<td>Standard Introduction to Geology</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS 1220</td>
<td>PHYS 1240</td>
<td>Calculus based physics, have completed MATH 1060</td>
</tr>
<tr>
<td></td>
<td>PHYS 2070</td>
<td>PHYS 2090</td>
<td>Physics in everyday life</td>
</tr>
</tbody>
</table>

*Must score a “65” or better on the CMPT.

Note: Astronomy (ASTR) and Physical Science (PHSC) courses may not be used to satisfy the natural science requirement for any of the three degrees.
HUMANITIES & SOCIAL SCIENCE COURSES

BS-CS: In addition to English and literature requirements, you must complete 15 additional hours from the university-approved list of which 3 hours are from the humanities (non-literature), 6 hours are from the social sciences, and an additional 6 hours are from either the humanities or the social sciences.

BA-CS: In addition to English and literature requirements, you must complete 15 additional hours from the university approved list of which 3 hours are from the humanities, 6 hours are from the social sciences, 3 hours from either the humanities or the social sciences and an additional 3 hours from the Fine Arts.

BS-CIS: In addition to English and literature requirements, you must complete 12 additional hours from the university-approved list of which 3 hours are from the humanities (non-literature), 6 hours are from the social sciences, and an additional 3 hours are from either the humanities or the social sciences.

There is no “best” humanity or social science courses for majors in our department, you should read the catalog descriptions and pick the courses that best fit your interests. Refer to your Undergraduate Announcements for course descriptions. Your selection may also be governed by your interest in fulfilling the CCA and STS requirements (see below).

CROSS-CULTURAL AWARENESS (CCA)
SCIENCE, TECHNOLOGY, & SOCIETY (STS)

Generally speaking, you may “double-dip” between the Cross-Cultural Awareness (CCA) and Science, Technology, & Society (STS) general education requirements with another general education requirement as long as you maintain the 33 minimum hours of general education coursework. For instance, many computer science majors will select one Humanities or Social Science course from the university-approved list to satisfy the CCA general education requirement and/or one Humanities or Social Science course from the university approved list to satisfy the STS general education requirement. See your Undergraduate Announcements for courses currently certified for CCA and STS content.

FOREIGN LANGUAGE (BA-CS REQUIREMENT)

If you are in the BA-CS program, you will need 4 semesters proficiency of the same language (14 hours). If you choose a language that you did not have in high school, you would start with the 1010 level course. If you are continuing with a language that you had in high school, you must take the placement test and your registration packet will include the Language Department’s recommendation for placement. Generally if you complete the recommended course with a ‘C’ or better you will receive credit for the previous courses (e.g. if you are placed in SPAN 1020 and make a ‘C’ or better, you will also receive credit for SPAN 1010). New first year and transfer students must take the Foreign Language Placement Test (FLPT) the afternoon prior to each orientation session and enroll in the appropriate course based on their scores. You will not be allowed to remain in a lower level course than determined by their FLPT score. The FLPT is required only for those students with experience in a language in which they intend to continue. If you did not take the placement test then contact the Department of Modern Languages to schedule a make-up exam. Information about the placement exams and testing dates can be found at http://www.clemson.edu/caah/languages/placement.html
COOPERATIVE EDUCATION & INTERNSHIPS

Cooperative Education is an optional multi-year program of work and study alternating between academic terms. The program is managed by the Cooperative Education Office (316 Hendrix Student Center) and you must contact them about application procedures.

Internships are work experiences and can be on a paid or unpaid basis. A central listing of internships is maintained by the Michelin Career Center (316 Hendrix Student Center) and at:
http://career.clemson.edu/internship programs).

As with the Co-Op program, you must register to participate.

None of the School of Computing undergraduate degree programs require a cooperative education or internship experience. However, if you are interested in a cooperative education or internship experience, please consult your academic advisor and the Michelin Career Centers.
CONCLUDING REMARKS

We sincerely welcome you to the School of Computing family! At this point, you may feel a bit overwhelmed by all the information presented in both campus orientation and here within the School. We offer several final pieces of advice to help with your transition to Clemson:

- Your *Undergraduate Announcements* is important. Make sure you read through and are familiar with the policies presented. Note that you can always find a PDF version on the Registrar’s Web site.
- The School of Computing Web site ([http://www.clemson.edu/computing](http://www.clemson.edu/computing)) is filled with lots of valuable information and advice. Much of the information presented during your School of Computing orientation is available under the Incoming Students section of the Undergraduate Programs page.
- Prior to making a major academic decision (such as withdrawing out of a class), schedule an appointment with your academic advisor so that you understand the impact on your academic standing.
- During the first week of classes, write down the office hours (sometimes called “walk in hours”) of your course instructors and your advisors.
- Make sure you can log into iROAR before you register for classes.
- While you can hope for the “ideal” schedule, you must be flexible as you may find some sections full. In order to stay on track for your first semester at Clemson, you typically should plan to take an English, a natural science and a computer science course. If you encounter a problem registering for a computer science course, see the advising team.
- Know ahead of time what alternate courses you may want to take in case some of your first choices are not available.
- The day after you register for classes, log into DegreeWorks and make sure your courses are counting where you expect them to be. If they are not, please contact your advisor.
# Bachelor of Science in Computer Science

## Freshman Year
### First Semester – 15 hours
- 3 – ENGL 1030 Composition & Rhetoric
- 4 – MATH 1060 Calculus of One Variable I
- 4 – Introduction to Computing Requirement
- 4 – Natural Science Requirement

### Second Semester – 15 hours
- 4 – MATH 1080 Calculus of One Variable II
- 3 – Arts and Humanities (Non-Lit) Requirement
- 4 – Introduction to Computing Requirement
- 4 – Natural Science Requirement

## Sophomore Year
### First Semester – 16 hours
- 3 – CPSC 2070 Discrete Structures for Computing
- 4 – CPSC 2120 Algorithms and Data Structures
- 3 – Arts and Humanities (Literature) Requirement
- 3 – Natural Science Requirement
- 3 – Oral Communications Requirement

### Second Semester – 16 hours
- 3 – CPSC 2150 Software Development Foundations
- 4 – CPSC 2310 Intro. to Computer Organization
- 1 – CPSC 2910 Seminar in Professional Issues I
- 3 – STAT 3090 Introductory Business Statistics
- 3 – Natural Science Requirement
- 2 – Elective

## Junior Year
### First Semester – 15 hours
- 3 – CPSC 3300 Computer Systems Organization
- 3 – CPSC 3600 Networks and Network Program.
- 3 – CPSC 3720 Intro. to Software Engineering
- 3 – MATH 3110 Linear Algebra
- 3 – Social Science Requirement

### Second Semester – 15 hours
- 3 – CPSC 3220 Introduction to Operating Systems
- 3 – Arts and Humanities Requirement or
  - 3 – Social Science Requirement
- 3 – Computer Science Requirement
- 3 – Social Science Requirement
- 3 – Theory Requirement

### Senior Year
### First Semester – 15 hours
- 3 – CPSC 3520 Programming Systems
- 6 – Computer Science Requirement
- 3 – Writing Requirement
- 3 – Elective

### Second Semester – 15 hours
- 3 – CPSC 4910 Seminar in Professional Issues II
- 3 – Arts and Humanities Requirement or
  - 3 – Social Science Requirement
- 6 – Computer Science Requirement
- 3 – Elective

122 Total Semester Hours

1. Select either the CPSC 1010 and 1020 sequence, or the CPSC 1060 and 1070 sequence. The sequence of CPSC 1110 and 1020 is also acceptable with one elective credit taken in the first semester.

2. Two-semester sequence in the same physical or biological science, each including a laboratory, is required. Select from BIOL 1030/1050, 1040/1060; 1100, 1110; CH 1010, 1020; GEOL 1010/1030 and 2020 or 1120/1140; PHYS 1220/1240, 2210/2230. The six remaining hours may be selected from BIOL, BCHM, CH, GEOL, MICR, PHYS, or ENSP 2000. Excess credits in the lab sciences can apply to the remaining science requirements.

3. See General Education Requirements.

4. MATH 1190 may be substituted.

5. Select from: COMM 1500, 2500, HON 2230; or the cluster of courses AS 3090, 3100, 4090, 4100; or ML 1010, 1020.

6. MATH 3020 or STAT 3300 may be substituted.

7. Select from courses in AAH, ANTH, ART, CHIN, COMM, DANC, EAS, ECON, ENGL, FR, GEOG, GER, HIST, HUM, ITAL, JAPN, MUSC, PA, PAS, PHIL, POSC, PSYC, REL, RUSS, SOC, SPAN, THEA, WS.

8. Select from 3000-level or higher CPSC courses or DPA 3070. No more than three credits of CPSC 3990 or 4810 may be applied to this requirement, and no more than six credits of CPSC 4820 may be applied. Up to three credits of ECE 3000-level or higher courses; or MATH 3650; or MATH 4000-level courses may be substituted.

9. Select either CPSC 3120 or 3500.

10. Select from: ENGL 3040, 3120, 3140, 3150, 3160, 3330; AS 3090, 3100, 4090, 4100; ML 3010, 3020, 4010, 4020.

**Notes:**
1. For graduation, a candidate for the BS degree in Computer Science must have earned a grade of C or better in each CPSC course applied to the non-elective requirements of the degree.
2. A grade of C or better must be earned in all prerequisite courses (including CPSC and MATH courses) before enrolling in the next CPSC course.
3. General Education Cross-Cultural Awareness and Science and Technology in Society requirements must be satisfied.
Freshman Year
First Semester – 15 hours
3 – ENGL 1030 Composition & Rhetoric
3 – MATH 1020 Introduction to Mathematical Analysis¹ or
4 – MATH 1060 Calculus of One Variable I¹
4 – Introduction to Computing Requirement²
4 – Natural Science Requirement³
1 – Elective¹

Second Semester – 17 hours
4 – Introduction to Computing Requirement²
3 – MATH 2070 Multivariable Calculus¹ or
4 – MTHS 1080 Calculus of One Variable II¹
3 – Arts and Humanities (Non-lit.) Requirement⁴
3 – Natural Science Requirement³
3 – Social Science Requirement⁴
1 – Elective¹

Sophomore Year
First Semester – 16 hours
3 – CPSC 2070 Discrete Structures for Computing⁵
4 – CPSC 2120 Algorithms and Data Structures
3 – Arts and Humanities (Literature) Requirement⁴
3 – Oral Communications Requirement⁶
3 – Social Science Requirement⁴

Second Semester – 14 hours
3 – CPSC 2150 Software Development Foundations
4 – CPSC 2310 Intro. to Computer Organization
1 – CPSC 2910 Seminar in Professional Issues I
3 – MGT 2010 Principles of Management
3 – STAT 3090 Introductory Business Statistics⁷

Junior Year
First Semester – 15 hours
3 – CPSC 2200 Microcomputer Applications
3 – CPSC 3220 Introduction to Operating Systems
3 – CPSC 3720 Intro. to Software Engineering
3 – Writing Requirement⁸

Second Semester – 15 hours
3 – ACCT 2020 Managerial Accounting Concepts
3 – CPSC 3600 Networks and Network Programming
3 – CPSC 3710 System Analysis or
3 – MGT 4520 Systems Analysis and Design
3 – Computer Science Requirement⁹
3 – Economics Requirement¹⁰

Senior Year
First Semester – 15 hours
3 – CPSC 4200 Computer Security Principles or
3 – CPSC 4240 System Admin. and Security
3 – CPSC 4620 Database Management Systems
3 – CPSC 4910 Seminar in Professional Issues II
3 – Business Requirement¹¹
3 – Computer Science Requirement⁹

Second Semester – 15 hours
3 – MGT 3120 Decision Models for Management
3 – MKT 3010 Principles of Marketing
3 – Business Requirement¹¹
3 – Computer Science Requirement⁹
3 – Information Systems Requirement¹²

122 Total Semester Hours

¹ Select either the MATH 1020/2070, 1060/2070 or 1060/1080 sequences.
² Students who select the 1060/1080 sequence will have satisfied the two elective credits in the freshman year.
³ Select either CPSC 1010 and 1020, or CPSC 1060 and 1070. CPSC 1110 and 1020 is also acceptable with one elective credit in the first semester.
⁴ Select from courses in BIOL, BCHM, CH, GEOL, MICR, PHYS; or ENSP 2000. At least one course must include a laboratory and satisfy the Natural Science General Education requirement.
⁵ See General Education Requirements.
⁶ One course of: COMM 1500, 2500, HON 2230; or the cluster of courses AS 3090, 3100, 4090, 4100; or ML 1010, 1020.
⁷ Or MATH 1190.
⁸ One course of: ENGL 3040, 3120, 3140, 3150, 3160, 3330; AS 3090, 3100, 4090, 4100; ML 3010, 3020, 4010, 4020.
⁹ Select from 3000-level or higher CPSC courses or DPA 3070. No more than three credits of CPSC 3990 or 4810 may be used, and no more than six credits of CPSC 4820 may be used. Up to three credits of ECE 3000-level or higher; or MATH 3650; or MATH 4000-level may be used.
¹⁰ Select from ECON 2000, 2110, and 2120.
¹¹ Select from MGT 3900, 4060 and FIN 3060.
¹² Select from MGT 4520, 4540, 4550, 4560, or any 4000-level CPSC course. CPSC 4810 may not be used.

Notes:
1. For graduation, a candidate for the BS degree in Computer Information Systems must have earned a grade of C or better in each CPSC course applied to the non-elective requirements of the degree.
2. A grade of C or better must be earned in all prerequisite courses (including CPSC and MATH courses) before enrolling in the next CPSC course.
3. General Education Cross-Cultural Awareness and Science and Technology in Society requirements must be satisfied.
Bachelor of Arts in Computer Science

**Freshman Year**

**First Semester – 15 hours**
3 – ENGL 1030 Composition & Rhetoric
3 – MATH 1020 Introduction to Mathematical Analysis\(^1\)
or 4 - MATH 1060 Calculus of One Variable \(^1\)
4 – Modern Language Requirement\(^2\)
4 – Introduction to Computing Requirement\(^3\)
1 – Elective\(^2\)

**Second Semester – 15 hours**
4 – Introduction to Computing Requirement\(^3\)
3 – MATH 2070 Multivariable Calculus\(^1\) or
4 - MATH 1080 Calculus of One Variable II\(^1\)
3 – Arts and Humanities (Literature) Requirement\(^4\)
4 – Modern Language Requirement\(^2\)
1 – Elective\(^2\)

**Sophomore Year**

**First Semester – 16 hours**
3 – CPSC 2070 Discrete Structures for Computing\(^5\)
4 – CPSC 2120 Algorithms and Data Structures
3 – Arts and Humanities (Literature) Requirement\(^4\)
3 – Modern Language Requirement\(^2\)
3 – Oral Communications Requirement\(^6\)

**Second Semester – 15 hours**
3 – CPSC 2150 Software Development Foundations
4 – CPSC 2310 Intro. to Computer Organization
1 – CPSC 2910 Seminar in Professional Issues I
3 – Modern Language Requirement\(^2\)
4 – Natural Science Requirement\(^7\)

**Junior Year**

**First Semester – 15 hours**
6 – Computer Science Requirement\(^9\)
3 – STAT 3090 Introductory Business Statistics\(^8\)
3 – Minor Requirement
3 – Natural Science Requirement\(^7\)

**Second Semester – 15 hours**
3 – Computer Science Requirement\(^9\)
6 – Minor Requirement
3 – Social Science Requirement\(^4\)
3 – Writing Requirement\(^{10}\)

**Senior Year**

**First Semester – 15 hours**
6 – Computer Science Requirement\(^9\)
3 – Departmental Humanities Requirement\(^11\)
3 – Minor Requirement
3 – Social Science Requirement\(^4\)

**Second Semester – 15 hours**
6 – Computer Science Requirement\(^9\)
3 – Fine Arts Requirement\(^{12}\)
3 – Minor Requirement
3 – Elective

121 Total Semester Hours

1. Select either the MATH 1020/2070, 1060/2070 or 1060/1080 sequence. Students who select the 1060/1080 sequence will have satisfied the elective credits in the freshman year. Students interested in computer graphics should select the 1060/1080 sequence.
2. Four semesters (through 2020) in the same modern language are required.
3. Select either CPSC 1010 and 1020, or CPSC 1060 and 1070. CPSC 1110 and 1020 is also acceptable with one elective credit in the first semester.
4. See General Education Requirements.
5. MATH 1190 may be substituted.
6. One course of: COMM 1500, 2500, HON 2230; or the cluster of courses AS 3090, 3100, 4090, 4100; or ML 1010, 1020.
7. Select from courses in BIOL, BCHM, CH, GEOL, MICR, PHYS; or ENSP 2000. At least one course must include a laboratory and satisfy the Natural Science General Education requirement.
8. Or MATH 3020, MATH 3110, STAT 3300, or transfer credit for MATH 3010. MATH 3110 is required for computer graphics courses.
9. Select from 3000-level or higher CPSC courses or DPA 3070. No more than three credits of CPSC 3990 or 4810 may be used, and no more than six credits of CPSC 4820 may be used. Up to three credits of ECE 3000-level or higher, or MATH 3650, or MATH 4000-level may be used.
10. One course of: ENGL 3040, 3120, 3140, 3150, 3160, 3330; AS 3090, 3100, 4090, 4100; ML 3010, 3020, 4010, 4020.
11. Select from courses in AAH, ANTH, ART, CHIN, DANC, ENGL, FR, GER, HUM, ITAL, JAPN, MUSC, PA, PHIL, REL, RUSS, SPAN, THEA.
12. MUSC 2100 or any course in AAH, ART, or THEA.

Notes:
1. For graduation, a candidate for the BA degree in Computer Science must have earned a grade of C or better in each CPSC course applied to the non-elective requirements of the degree.
2. A grade of C or better must be earned in all prerequisite courses (including CPSC and MATH courses) before enrolling in the next CPSC course.
3. General Education Cross-Cultural Awareness and Science and Technology in Society requirements must be satisfied.