BACHELOR OF SCIENCE IN COMPUTATIONAL MEDIA

The Bachelor of Science in Computational Media is a collaborative effort by the College of Computing and the School of Literature, Media, and Communication (LMC). The program offers a thorough education in all aspects of the computer as a medium: the technical, the historical-critical, and the applied. Program graduates will have both significant hands-on and theoretical knowledge of computing and an understanding of visual design and the history of media. Graduates will be uniquely positioned to plan, create, and critique new digital media forms for entertainment, education, and business communication.

The program requires 36 credit hours of courses in computer science and 30 credit hours of courses in LMC (in addition to the humanities requirement). A substantial number of required courses in each unit ensures that every student has basic competence in:

- computational principles;
- the representation and manipulation of digital media, including graphics and sound;
- software design;
- visual and interactive design;
- digital arts; and
- media theory and history.

After completing required courses, students specialize in a specific area of media computing. Typical specialty areas include:

- Interactive games design: This is one of the fastest growing areas of digital media production and is already a $7 billion industry.
- Special effects: As special effects become more complex and focused on computer-generated imagery, employment in this area will increasingly require expertise in both media and computer science.
- Culturally informed program design: As programming work is increasingly outsourced to nations offering lower labor costs, programming that adds value through a sophisticated response to the needs of specific corporate and group cultures will offer job security to American programmers.

Depending on their coursework within the BS program, students will also be qualified to enter graduate studies in computer science, digital arts, digital media studies, and human-computer interface.

Cooperative Programs

The College of Computing participates in the undergraduate and graduate Cooperative Programs.

See links below for further information.

Undergraduate Cooperative Plan (http://www.catalog.gatech.edu/academics/special-academic-programs/experiential-education/center-career-discovery-development)

Graduate Cooperative Plan (http://www.catalog.gatech.edu/academics/special-academic-programs/experiential-education/graduate-cooperative-plan)

International Plan

The Computational Media (CM) International Plan follows the Institute model to develop a global competence within the student’s major program of study. It thus integrates international studies and experiences with work in all aspects of the computer as a medium, preparing graduates to plan, create, and critique new digital media forms within an international professional environment.

As in the basic CM program, students following the International Plan will take credit 36 hours of courses in CS and 30 credit hours of courses in LMC (in addition to the basic humanities requirement). Students will also:

1. take three international courses, including one from each of the following categories: International Relations, Global Economics, and a course on a specific country or region;
2. spend two terms abroad engaged in any combination of study abroad, research, or internship;
3. demonstrate language proficiency equivalent to two years of college-
   level language study (to be determined by testing); and
4. complete a CM capstone course that links international studies with
   the major.

Research Option

The CM Research Plan follows the Institute model to allow students
to incorporate research experiences into the major program of study.
Students will complete nine hours of credit research work on various
aspects of the computer as a medium, working in such areas as
computational principles, the representation and manipulation of digital
media, software design, visual and interactive design, digital art, and
media theory and history.

As in the basic CM program, students following the Research Plan will
take 36 credit hours of courses in CS and 30 credit hours of courses in
LMC (in addition to the basic humanities requirement). CM students
can complete the Research Option with nine CS or LMC research hours.
Students cannot have a mix of both count towards the Research Option.
The breakdown of hours is as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMC 4701</td>
<td>Undergraduate Research Proposal Writing</td>
<td>1</td>
</tr>
<tr>
<td>LMC 4702</td>
<td>Undergraduate Research Thesis Writing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Credit Hours</td>
<td>11</td>
</tr>
</tbody>
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BS/MS Computational Media and Digital Media

Students who want to pursue the five-year BS/MS combination in CM and
DM must apply to the school of LMC after completing at least 75 hours
of work towards the CM degree. Applicants should have a cumulative
GPA of at least 3.5. This GPA must be maintained for the student to take
graduate level courses. Students must start the program in the Fall to be
on track with other MS students.

Students admitted to the program will take a total of twelve credit hours
of graduate course work during their final undergraduate year; six credit
hours of that work, in DM courses, will count towards two 4000 level LMC
courses (6 hours) and will count for both undergraduate and graduate
credit. During the summer term after their fourth year, students will
participate in an approved internship program. During their fifth year,
students will take a total of 24 credit hours, including either LMC 6800 or
LMC 7000, and with no more than three courses taken outside of the DM
program.