August 14, 2008

Donadrian Rice
Interim Dean, College of Arts and Sciences
University of West Georgia
Carrollton GA 30118-2310

Dear Dr. Rice:

Computing Accreditation Commission (CAC) of ABET recently held its 2008 Summer Meeting to act on the program evaluations conducted during 2007-2008. Each evaluation was summarized in a report to the Commission and was considered by the full Commission before a vote was taken on the accreditation action. The results of the evaluation for University of West Georgia are included in the enclosed Summary of Accreditation Actions. The Final Statement to your institution that discusses the findings on which each action was based is also enclosed.

The policy of ABET is to grant accreditation for a limited number of years, not to exceed six, in all cases. The period of accreditation is not an indication of program quality. Any restriction of the period of accreditation is based upon conditions indicating that compliance with the applicable accreditation criteria must be strengthened. Continuation of accreditation beyond the time specified requires a reevaluation of the program at the request of the institution as noted in the accreditation action. ABET policy prohibits public disclosure of the period for which a program is accredited. For further guidance concerning the public release of accreditation information, please refer to Section II.L. of the 2007-2008 Accreditation Policy and Procedure Manual (available at www.abet.org).

A list of accredited programs is published annually by ABET. Information about ABET accredited programs at your institution will be listed in the forthcoming ABET Accreditation Yearbook and on the ABET web site (www.abet.org).
It is the obligation of the officer responsible for ABET accredited programs at your institution to notify ABET of any significant changes in program title, personnel, curriculum, or other factors which could affect the accreditation status of a program during the period of accreditation.

Please note that appeals are allowed only in the case of Not to Accredit actions. Also, such appeals may be based only on the conditions stated in Section II.G. of the 2007-2008 Accreditation Policy and Procedure Manual (available at www.abet.org).

Sincerely,

[Signature]

Stuart H. Zweben, Chair
Computing Accreditation Commission

Enclosure: Summary of Accreditation Action
Final Statement

cc: Thomas J. Hynes, Acting President
    Adel M. Abunawass, Chair, Computer Science Department
    Stan Thomas, Visit Team Chair
ABET, Inc.

Computing Accreditation Commission
Summary of Accreditation Actions
for the
2007-2008 Accreditation Cycle

University of West Georgia
Carrollton, GA

Computer Science (BS)

Accredit to September 30, 2014. A request to ABET by January 31, 2013 will be required to initiate a reaccreditation evaluation list. In preparation for the visit, a Self-Study Report must be submitted to ABET by July 01, 2013. The reaccreditation evaluation will be a comprehensive general review.
ABET
Computing Accreditation Commission

FINAL STATEMENT

to

UNIVERSITY OF WEST GEORGIA
Carrollton, GA

Dates of Visit: October 7-9, 2007

Team Chair: Stan Thomas
Wake Forest University
Winston-Salem, NC

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UNIVERSITY OF WEST GEORGIA

FINAL STATEMENT
2007-2008 EVALUATION

This is a confidential statement from the Computing Accreditation Commission to the University of West Georgia. It is intended for internal use only and is not for release except as allowed by policies of ABET, Inc.

I. INTRODUCTION

The University of West Georgia is a coeducational, residential, liberal arts institution located in Carrollton, Georgia. The location is about one hour west of Atlanta in a region that continues to experience significant population growth. The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor’s, master’s, educational specialist’s degrees, and an education doctorate degree. Students come from most counties in Georgia as well as from other states and several foreign countries. Enrollment at West Georgia in 2006 was 8,479 undergraduate students and 1,688 graduate students.

The Department of Computer Science is part of the College of Arts and Sciences. The Bachelor of Science in Computer Science is the only undergraduate major program in the department. As of 2006 one-hundred fifty students were enrolled in the BS program with an FTE count of one hundred thirty six. The department also offers a Master of Science in Applied Computer Science, in which 24 students are currently enrolled. The two programs are supported by a faculty size of 11 positions; 10 of those positions were filled as of the fall 2007 semester.

The Computer Science Program at the University of West Georgia was evaluated by the Computing Accreditation Commission (CAC) of ABET in the 2001-02 cycle and was accredited at that time.

The Computing Accreditation Commission (CAC) of ABET evaluated the BS Degree in Computer Science of the University of West Georgia during the 2007-08 cycle for possible accreditation under the CAC/ABET “Criteria for Accrediting Computing Programs”, dated March 17, 2007.

II. REPORT OF FINDINGS FROM THE CAC EVALUATION VISIT

The Criteria are divided into seven major categories, each containing a statement of intent and standards. The intents provide the underlying principles that each program must meet to be accredited. The standards provide a description detailing how a program
can meet the intent. A program can meet an intent either by satisfying all the associated standards or by demonstrating an alternate implementation.

This section contains the report of the findings at the time of the visit. CAC considers the following comments to relate directly to its accreditation actions. This section is structured as follows. For each category a statement summarizing whether the program meets its intent follows the statement of intent. All deficiencies, weaknesses, and concerns related to the category are then summarized, and detailed findings are presented. For better understanding, the reader may refer to a copy of the Criteria.

A. Objectives and Assessments

Intent: The program has documented, measurable objectives, including expected outcomes for graduates. The program regularly assesses its progress against its objectives and uses the results of the assessments to identify program improvements and to modify the program’s objectives.

The program meets the intent of the Objectives and Assessments Category by satisfying all associated standards. However, there are concerns relative to Standards I-3, I-4, and I-5.

The department exhibits a pervasive culture of self reflection and analysis of their courses, which is laudable. The development and use of the COMPASS system, a web-accessible application for managing the documentation of assessment activities and results (Standard I-6), is indicative of the department’s efforts and an excellent example of the integration of assessment activities with the learning process. The faculty members view continuous improvement of their courses as a shared responsibility and a normal part of their work. However, the assessment process focuses primarily on course based assessment with less attention given to assessing student outcomes and program level objectives.

The department has four clearly documented program objectives, called goals in the self study, as well as six program outcomes (Standards I-1 and I-2). The objectives and outcomes are listed in the self study and on the departmental web site. The objectives are measurable, though it appears one may only be measurable using anecdotal data.

Extensive course level assessment data, as well as input from an advisory board, exit interviews, and alumni surveys is collected and utilized in program assessment and to identify opportunities for program improvement. Hence, the team finds that Standards I-3, I-4 and I-5 are satisfied.

However, the team notes concerns with respect to standards I-3, I-4, and I-5. The program presents a mapping to show how student outcomes relate to program objectives, and a mapping to show how individual course outcomes in the program relate to the program outcomes. However, the effectiveness of the coupling between the course outcomes assessment and assessment of the program outcomes to which they relate was
unclear. The department collects course-level assessment data via a binary evaluation (met or not met) of each course outcome over the aggregate student performance at the end of each term. During the term, data collection is supported by the COMPASS system which stores all graded student work along with the mapping of each graded item to course outcomes. Performance criteria are implicitly defined in the course outcomes based on the use of keywords from Bloom’s Taxonomy. At the end of the term each instructor reviews the students’ graded work that relates to each outcome and determines if the outcome has been met to the level specified in the associated category from Bloom’s Taxonomy. The department’s faculty has been trained in the use of the Bloom’s Taxonomy for this purpose. Once the course evaluation is complete, it is reviewed by the curriculum committee to look for areas needing improvement relative to the program outcomes. The current system is working well in accomplishing the tasks of assessing and improving the curriculum. However, it relies heavily on the implicit course performance criteria and shared group knowledge of the correlation of course outcomes across the curriculum. There is concern about the extent to which this aggregation of the information collected at the course level can effectively determine the extent to which each program outcome is being achieved (Standard I-4). Hence, there are related concerns with the appropriateness of the course-level data being collected (Standard I-3) and the extent to which this data limits the ability to identify opportunities for overall program-level improvement (Standard I-5).

B. Student Support

*Intent: Students can complete the program in a reasonable amount of time. Students have ample opportunity to interact with their instructors. Students are offered timely guidance and advice about the program’s requirements and their career alternatives. Students who graduate the program meet all program requirements.*

The program meets the intent of the Student Support Category by satisfying all associated standards with no concerns.

The program offers its courses on a rotation sufficient for students to complete the program in a timely manner (Standard II-1) and keeps students informed of this rotation. The department also has the capability to accurately predict the population of students needing specific courses and adjusts its offerings to meet these demands. Controlled class sizes and a minimum of ten office hours per week for every faculty member ensure effective interaction between faculty and students (Standard II-2). Faculty availability was re-affirmed strongly during the team’s meeting with the students. The program has a strong advising system that keeps students informed of the program requirements and their progress in the program using both on-line and printed materials (Standard II-3). Students are advised by the departmental advisor on scheduling issues and by a faculty advisor on discipline specific and career goals (Standard II-4). All students preparing to graduate have their transcripts checked on multiple levels to ensure compliance with the program requirements. Any exceptions to the requirements are clearly documented and extenuating circumstances also are documented (Standard II-5).
C. Faculty

*Intent:* Faculty members are current and active in the discipline and have the necessary technical breadth and depth to support a modern computer science program. There are enough faculty members to provide continuity and stability, to cover the curriculum reasonably, and to allow an appropriate mix of teaching and scholarly activity.

The team finds that the program meets the intent of the Faculty Category by fully satisfying all associated standards with no concerns.

The department has eleven faculty positions. Ten positions are currently filled and those individuals all have primary commitment to the program (Standard III-1). All courses are taught by full-time faculty members (Standards III-2 and III-3). Eight of the ten current faculty members have a Ph.D. in Computer Science (Standard III-6), one has a Ph.D. in Computer Engineering, and one has an M.S. in Computer Science (Standard III-7). The faculty is energetic, collegial, and dedicated to teaching and student learning. Effective teaching is the primary mission of the department. The Chair has built an impressive faculty with a common vision of undergraduate student learning. Faculty members have varied interests in complementary areas including artificial intelligence, software engineering, bioinformatics, databases, and computational logic. These interests support well the courses offered by the department (Standard III-4). Most faculty members publish refereed articles within their areas of interest or attend appropriate regional and national conferences. Given the department’s focus on teaching, the faculty is very active in scholarship and professional development (Standard III-5). This is at least in part the result of the Chair’s scheduling practices that intentionally balance the teaching load of each faculty member to include a mixture of service courses and courses within the major. This balance allows each faculty member sufficient time for meaningful scholarship and professional development (Standard III-8). Advising is recognized when each faculty member’s workload is computed (Standard III-9).

D. Curriculum

*Intent:* The curriculum is consistent with the program’s documented objectives. It combines technical requirements with general education requirements and electives to prepare students for a professional career in the computer field, for further study in computer science, and for functioning in modern society. The technical requirements include up-to-date coverage of basic and advanced topics in computer science as well as an emphasis on science and mathematics.

The team finds the program meets the intent of the Curriculum Category by fully satisfying all associated standards with no concerns.

**General**

The curriculum includes 53 hours of study in computer science (Standard IV-1). The curriculum also includes 32 hours of mathematics and science (Standard IV-2) and 32
hours of coursework in the humanities, social sciences, arts and other disciplines (Standard IV-3). The curriculum is consistent with the documented objectives of the program (Standard IV-4).

**Computer Science**

Eighteen and one-half semester hours of core computer science courses are required (Standard IV-5). The core material covers basic programming and software engineering concepts, data structures, and computer architecture (Standard IV-6). Theoretical foundations, problem analysis and solution design are given appropriate emphasis in the core computer science curriculum (Standard IV-7).

In addition to becoming proficient in Java, students study C# and are introduced to other language paradigms in the Programming Language survey course. Students become familiar with both the Windows and the Linux operating systems (Standard IV-8). The curriculum requires a total of 34.5 hours of advanced computer science courses, including artificial intelligence, data management, networks, and operating systems (Standard IV-9).

**Mathematics and Science**

The curriculum requires 20 semester hours of mathematics courses (Standard IV-10). The required mathematics courses include differential and integral calculus, discrete mathematics, and probability and statistics (Standard IV-11). The discrete mathematics course is a part of a two-course sequence that integrates discrete mathematics and data structures. This integration allows for a tight coupling of theory and practice.

A total of 12 hours of science courses is required (Standard IV-12). All students must complete a two-semester sequence of laboratory science intended for science majors (biology, chemistry or physics) (Standard IV-13). The program requires students to take a third laboratory science course from a fixed list of options. All options in the list enhance the student’s abilities to apply the scientific method (Standard IV-14).

**Additional Areas of Study**

The program has no specific required course on oral communication; however, the University Core Curriculum includes an oral presentation development requirement. The suite of courses available to fulfill this option is appropriate for the development of student oral presentation skills. Also, several required computer science courses, including CS 3151, 3270, and 4982, require oral presentations. Oral communication skills are developed and applied in the program (Standard IV-15).

The University general studies requirement includes two English courses (six semester hours). In addition, there is a Writing Across the Curriculum (WAC) requirement. WAC courses are junior/senior courses that are certified as writing intensive. Each student must take two such courses, one of which must be in the major department. Two computer
science courses are regularly offered as WAC certified courses. Many of the
departmental faculty members are certified to teach these writing intensive courses.
Written communication skills are developed and applied in the program (Standard IV-
16).

The required capstone course CS 4982 is an ethics course applied to computing. The
material includes the social implications of computing. Students are engaged in the study
of ethics through weekly reflection journals and oral presentations of select chapters. CS
3260 (Net-Centric Computing) and CS 3270 (AI) also include substantive coverage of
social and ethical topics in computing (Standard IV-17).

E. Laboratories and Computing Facilities

Intent: Laboratories and computing facilities are available, accessible, and adequately
supported to enable students to complete their course work and to support faculty
teaching needs and scholarly activities.

The team finds that the program meets the intent of the Laboratories and Computing
Facilities Category by fully satisfying all associated standards with no concerns.

The computing resources available to students and faculty are appropriate, modern, and
well-maintained. The department maintains over 125 workstations in addition to several
specialized servers. Most computing systems are available twenty-four hours a day from
any location, as is online documentation (Standards V-1 and V-2). Each faculty member
has a desktop computer in his or her office (Standard V-3). The department’s support
personnel are well-qualified and enthusiastic (Standard V-4). Having these positions in
the department facilitates the development of advanced applications such as the
COMPASS system while providing the department with timely hardware support.
Technical assistance is available all day during the business day. In addition, the
department operates a peer-tutoring lab, staffed by upper class majors and graduate
students, to assist students in lower-level introductory courses (Standard V-5).

F. Institutional Support and Financial Resources

Intent: The institution’s support for the program and the financial resources available to
the program are sufficient to provide an environment in which the program can achieve
its objectives. Support and resources are sufficient to provide assurance that the
program will retain its strength throughout the period of accreditation.

The team finds that the program meets the intent of the Institutional Support and
Financial Resources Category by satisfying all associated standards. However, there is a
concern relative to Standard VI-9.

The department is able to attract and retain well-qualified faculty and to support them in
their scholarly activities (Standard VI-1). Some individuals were issued terminal
contracts in recent years but the evidence indicates that these cases were not related to
faculty salaries or support. The administration fosters positive communication with the department and has historically provided the department with the resources necessary for growth and improvement and to function effectively in the college (Standard VI-6). This support includes travel funds for faculty to attend national meetings (Standard VI-2) and support and recognition of scholarly activities (Standard VI-3). The department’s full-time administrative assistant is adequate staffing for the size of the department and its programs (Standard VI-4). The department chair receives a one course reduction each semester and is able to continue scholarly activity while serving as chair (Standard VI-5). Although the department does not have an annual budget allocation for equipment maintenance and acquisition, which is an exception to common practice for computer science departments, equipment needs have historically been met by the administration and the administration has committed to continuing support for equipment purchases (Standard VI-7). The department is not funded directly for library purchases but the funds allocated to the department through the library are adequate and comparable with other departments in the college (Standard VI-8). The team does have a concern with respect to Standard VI-9 stemming, in part, from a potential loss of lab fees as some of the department’s service courses transition from a classroom setting to online offerings. This potential loss of funds, coupled with the lack of an annual equipment budget, as well as increasing competition for decreasing state funds, leads the team to note a concern with respect to the evidence that the institutional support and financial resources will remain in place throughout the period of accreditation.

G. Institutional Facilities

Intent: Institutional facilities including the library, other electronic information retrieval systems, computer networks, classrooms, and offices are adequate to support the objectives of the program.

The team finds that the program meets the intent of the Institutional Facilities Category by fully satisfying all associated standards with no concerns.

Library resources, as well as classroom facilities and faculty offices are adequate to support the computer science program. The library has professional librarians and personnel with knowledge of technology (Standard VII-1). The collection includes up-to-date materials selected by faculty members in conjunction with the department’s library representative. Various electronic resources are available, including the ACM Digital Library (Standards VII-2 and VII-3). The studio style laboratories are well-designed for the type of personal instruction which is a hallmark of the program. All classrooms are modern and equipped with network access and built-in projectors (Standard VII-4). Several classrooms are equipped with electronic whiteboards. All faculty members have modern, private offices located near the department’s office suite. Each office is equipped with at least one computer and provides adequate space for faculty to work with students (Standard VII-5).
H. Observation

The new criteria that will be in effect for the next evaluation may require additional changes relative to the assessment of objectives and outcomes. The program should evaluate the necessity of such changes right away, and begin working as needed to comply with the new criteria rather than waiting until preparations are under way for the next visit.

III. ACTIONS SINCE THE VISIT

1. Objectives and Assessment Category. At the time of the visit, there were concerns related to Standard I-3, Standard I-4, and Standard I-5. The program presented a mapping to show how program outcomes related to program objectives, and a mapping to show how individual course outcomes in the program related to the program outcomes. The process relied heavily on implicit course performance criteria and shared group knowledge of the correlation of course outcomes across the curriculum. There was concern about the extent to which this aggregation of the information collected at the course level effectively determined the extent to which each program outcome was being achieved (Standard I-4). There were concerns with the appropriateness of the course-level data collected (Standard I-3) and the extent to which this data limited the ability to identify opportunities for overall program-level improvement (Standard I-5).

The department reports that they have begun to implement two important changes to the assessment process. First, they are refining the relationship between course-level assessment and program outcomes by establishing an explicit mapping between individual course outcomes and program outcomes. This will allow them to more clearly aggregate the data collected through course-level assessment, and thereby clarify the extent to which each program outcome is being achieved. They will continue to assign to each outcome an appropriate level from Bloom’s Taxonomy and use that level in assessing the extent to which each individual course outcome contributes to the achievement of the program outcomes it supports. This aggregation is expected to make clear the impact of student achievement in individual course outcomes on the achievement of related program outcomes.

To provide for more fine-grained measure of student achievement, the department is replacing the current binary evaluation with a four-point scale evaluation. The assessment rubric will indicate the expected performance criteria for each of these levels of achievement. The aggregate data at the course level, coupled with the refined course outcome to program outcome mapping described above, will provide the basis for more clearly understanding the extent to which each program outcome is being achieved.

Although efforts are underway which should, when fully implemented, address the team’s concerns with respect to Standard I-3, Standard I-4, and Standard I-5, these revised processes have not yet been fully implemented and their effectiveness
reviewed. The concerns with respect to Standard I-3, Standard I-4, and Standard I-5 remain.

2. Institutional Support and Financial Resources Category. At the time of the visit, there was a concern related to Standard VI-9. The team identified a potential loss of lab fees as some of the department’s service courses transition from a classroom setting to online offerings. This possibility, in combination with the lack of an annual equipment budget, as well as increasing competition for decreasing state funds, may reduce the level of institutional support and financial resources available to the program.

3. The department reports that they are engaged in discussion with the Dean of Arts & Sciences in regard to this concern as well as a request to increase the fees associated with its lab courses. A concern remains with respect to Standard VI-9.

IV. CONCLUSIONS

The computer science program at the University of West Georgia is dedicated to undergraduate education. This dedication is apparent and appreciated by students of the program. Faculty members are able to remain current in the discipline while teaching full loads and remaining available to students. The department has very capable leadership and a talented complement of junior faculty capable of leading the department into the future.

The following is a summary of the current status of the program relative to the continuing concerns from the 2001-02 visit:

1. (Standard V-4) – There was a concern that adequate support personnel might not be available to install and maintain the laboratories and computing facilities.

   Status: Additional support positions have been created. This is no longer a concern.

2. (Standard VI-7) – There was a concern that adequate resources might not be available to acquire and maintain laboratory facilities that meet the needs of the program.

   Status: Although the program does not have an annual budget for equipment replacement and upgrades, the administration has established a reliable record of providing the equipment needed and has committed to continuing support for equipment. While there no longer is a concern with respect to this standard, there is a related concern with respect to Standard VI-9.

The program meets the intent for all categories in the Criteria by satisfying the associated standards. However, the following concerns were identified:
1. (Standard I-3) – The use of the proposed new mapping between course outcomes and program outcomes to provide useful assessment data has yet to be demonstrated. The previous lack of a clear mapping made it unclear if useful assessment data could be systematically collected.

2. (Standard I-4) – The newly created evaluation scale to assess the extent to which program outcomes are being met has not yet been fully implemented and its effectiveness has not been reviewed.

3. (Standard I-5) – The program’s focus on course-level assessment data may limit the ability to identify opportunities for program improvement. The ability of the new assessment process changes to address this possible limitation have not yet been demonstrated.

4. (Standard VI-9) – The potential loss of lab fees as some of the department’s service courses transition from a classroom setting to online offerings, in combination with the lack of an annual equipment budget as well as increasing competition for decreasing state funds, may reduce the level of institutional support and financial resources available to the program.

These concerns may affect the stability, overall quality, or future accreditation of the program and will be of special interest to the next evaluation team.
ABET
Computing Accreditation Commission

SELF-STUDY
QUESTIONNAIRE FOR REVIEW
of the
COMPUTER SCIENCE PROGRAM

submitted by

University of West Georgia
July 1, 2007

to the
Computing Accreditation Commission

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  A.C. Regional or Institutional Accreditation .............................. 138
  A.D. Enrollment ................................................................. 139
Chapter I

Objectives and Assessments

Intent: The program has documented, measurable objectives, including expected outcomes for graduates. The program regularly assesses its progress against its objectives and used the results of the assessments to identify program improvements and to modify the program’s objectives.

I.A. Objectives

Standard I-1. The program must have documented, measurable objectives.

Standard I-2. The program’s objectives must include expected outcomes for graduating students.

I.A.1. Program Objectives and Learning Outcomes

Indicate below or attach to this document the program’s measurable objectives. These objectives must include expected outcomes for graduates.

Department Mission

The Department of Computer Science will offer an excellent computer science education in a personal environment. Students, faculty, and staff will engage in extracurricular activities that enrich the learning experience and offer opportunities to interact with peers. The Faculty and Staff will dedicate themselves to preparing our students for successful careers, life-long learning, and citizenship.

Program Goals

The program goals are broad statements that describe the career and professional accomplishments that the program prepares graduates to achieve. The goals of the Bachelor of Science in Computer Science program are:

1. Provide students with a core body of knowledge in computer science, with advanced topics that provide breadth of knowledge, build on the core, and expose students to current and emerging technologies and
CHAPTER I. OBJECTIVES AND ASSESSMENTS

1. Keep pace with current and emerging trends in computing and information technology.
2. Prepare students for successful careers in computing and information technology.
3. Foster students’ appreciation of the need for professional development, life-long learning, and citizenship.
4. Provide students with a foundation of knowledge and skills reflecting the general education goals and values of the University.

Program Outcomes

The program outcomes are narrower, measurable statements that describe what students are expected to know and be able to do by the time of graduation. Program outcomes relate to the skills, knowledge, and behaviors that students acquire through their matriculation through the program. The program outcomes are achieved and measured through the several courses that comprise the B.S. in Computer Science curriculum.

<table>
<thead>
<tr>
<th>Program Outcome</th>
<th>Program Goals Supported</th>
<th>ABET Criteria Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO-01</td>
<td>Apply fundamental concepts of computer science, software engineering, and mathematics in the modeling, design, and implementation of computer systems of varied complexity; and further apply these fundamental concepts to adapt to unfamiliar technologies and methods.</td>
<td>PG-01, PG-02, PG-03</td>
</tr>
<tr>
<td>PO-02</td>
<td>Effectively function as a member of a team engaged in the process of modeling, designing, and implementing computer-based systems of varied complexity.</td>
<td>PG-02, PG-04</td>
</tr>
<tr>
<td>PO-03</td>
<td>Recognize and analyze social, professional, and ethical issues and responsibilities they may face as computing professionals.</td>
<td>PG-02, PG-03, PG-04</td>
</tr>
<tr>
<td>PO-04</td>
<td>Prepare and give effective technical presentations.</td>
<td>PG-02, PG-04</td>
</tr>
<tr>
<td>PO-05</td>
<td>Write clear and accurate technical documents.</td>
<td>PG-02, PG-04</td>
</tr>
<tr>
<td>PO-06</td>
<td>Apply the scientific method in a traditional lab science.</td>
<td>PG-01, PG-04</td>
</tr>
</tbody>
</table>

Program Outcomes and Required Courses Matrix

The following matrix gives the mapping of courses to Program Outcomes. This mapping represents the required courses for the degree that contribute to the achievement of each program outcome. The relative degree to which a course contributes to the achievement of a program outcome is indicated as L (low), M (medium), or H (high).

<table>
<thead>
<tr>
<th>Course</th>
<th>PO-01</th>
<th>PO-02</th>
<th>PO-03</th>
<th>PO-04</th>
<th>PO-05</th>
<th>PO-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS1300: Intro to Computer Science</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS1301: Computer Science I</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>CS1302: Computer Science II</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3110: System Architecture</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3151: Data Structures &amp; Discrete Math I</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3152: Data Structures &amp; Discrete Math II</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3211: Software Engineering I</td>
<td>M</td>
<td></td>
<td>M</td>
<td>H</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER I. OBJECTIVES AND ASSESSMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>PO-01</th>
<th>PO-02</th>
<th>PO-03</th>
<th>PO-04</th>
<th>PO-05</th>
<th>PO-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS3212: Software Engineering II</td>
<td>H</td>
<td>H</td>
<td>M</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3230: Information Management</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3280: System and Network Administration</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3270: Intelligent Systems</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS4225: Parallel and Distributed Systems</td>
<td>M</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>CS4410: Survey of Programming Languages</td>
<td>M</td>
<td>H</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CS4980: Web Technologies</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>CS4982: Computing Capstone</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>CS 4000-level Electives</td>
<td>M</td>
<td></td>
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</tr>
<tr>
<td>MATH 2063: Introductory Statistics</td>
<td>M</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MATH 1634: Calculus I</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 2644: Calculus II</td>
<td>M</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MATH Elective</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab Science 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
</tr>
<tr>
<td>Lab Science 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
</tr>
<tr>
<td>Lab Science Elective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
</tr>
<tr>
<td>ENGL3405: Professional &amp; Technical Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
</tr>
</tbody>
</table>

I.A.2. Relationship with Institutional Mission

Describe how the program’s objectives align with your institution’s mission.

The heart of the University’s mission is to offer educational excellence in a personal environment. This means that we must meet our students where they are when they come to us and try to supply the means by which they can prepare themselves for success in their careers and in society. Our program applies that philosophy to the computer science major. We offer the opportunity for our students, whatever their educational and cultural backgrounds, to acquire a strong foundation in computer science and to ground their technical knowledge in a broader liberal arts and sciences framework. We provide this opportunity in an environment that fosters close student-teacher relations so that we can give each major the personal attention she or he needs to succeed.

Implementation of Objectives

Standard I-3. Data relative to the objectives must be routinely collected and documented, and used in program assessments.

Standard I-4. The extent to which each program objective is being met must be periodically assessed.

Standard I-5. The results of the program’s periodic assessment must be used to help identify opportunities for program improvement.

The following table summarizes major improvements/actions taken based on our assessment activities (explanations of actions listed in this table are provided in Section I.C on Program Improvements. Additional detail regarding assessment results is documented through our COMPASS Assessment Portal.1

1http://www.cs.westga.edu/Assessment/Portal
Appendix A

Information Relative to Entire Institution

A.A. General Information

<table>
<thead>
<tr>
<th>Institution</th>
<th>University of West Georgia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Department of Computer Science</td>
</tr>
<tr>
<td>Street</td>
<td>1601 Maple Street</td>
</tr>
<tr>
<td>City</td>
<td>Carrollton</td>
</tr>
<tr>
<td>State</td>
<td>Georgia</td>
</tr>
<tr>
<td>Zip</td>
<td>30118</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://www.westga.edu">http://www.westga.edu</a></td>
</tr>
</tbody>
</table>

A.A.1. Chief Executive Officer of Campus

Dr. Thomas J. Hynes
Acting President

A.B. Type of Control

State

A.C. Regional or Institutional Accreditation

Name the organizations by which the institution is now accredited, give dates of most recent accreditation. Attach a copy of the most recent accreditation action by any organization accrediting the institution or any of its computer-related programs.
The University of West Georgia is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor’s, master’s, education specialist’s degrees, and an education doctorate degree.

Accreditations also include the following:

- AACSB International - The Association to Advance Collegiate Schools of Business
- American Chemical Society
- Commission on Collegiate Nursing Education
- Computing Accreditation Commission of the Accreditation Board for Engineering and Technology
- Council for Humanistic Transpersonal Psychology
- National Association of Schools of Music
- National Association of Schools of Art and Design
- National Association of Schools of Theatre
- National Association of Schools of Public Affairs and Administration
- National Council for Accreditation of Teacher Education

Organizations in which the University holds institutional membership include the American Council on Education, the American Association of State Colleges and Universities, the American Association of Colleges for Teacher Education, the Conference of Southern Graduate Schools, the Georgia Association of Colleges, the National Association for Foreign Student Affairs, the National Business Education Association, and the National Collegiate Honors Council.

### A.D. Enrollment

<table>
<thead>
<tr>
<th>Enrollment Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total enrollment for the entire institution (FTE)</td>
<td>9427</td>
</tr>
<tr>
<td>Total faculty for the entire institution (FTE)</td>
<td>490</td>
</tr>
</tbody>
</table>

### A.E. Funding Process

Describe the process for allocating institutional funds to the computer science program.

The state legislators allocate a yearly budget to the Board of Regents (BOR) of the University System of Georgia. The BOR distribute budgets to the various institutions. The Vice President of Academic Affairs allocates funds to the various organizational units, including the College of Arts and Sciences (which includes the Department of Computer Science). The Dean of the College of Arts and Sciences allocates funds based on the previous year.
A.F. Promotion and Faculty Tenure

Summarize the promotion and tenure system and the system for merit salary adjustments. (Give an overview of actual practice; do not reproduce an entire section from the faculty handbook.)

Positive recommendations for promotion and tenure are awarded based on performance in the following areas:

- Teaching
- Service to the Institution
- Academic Achievement
- Professional Growth and Development

The Departmental guidelines state the level of performance required for each area in order to receive a positive recommendation for promotion and/or tenure. Faculty are expected to submit a tenure/promotion dossier, which documents their performance in the areas of evaluation. At the Department level, Faculty are evaluated by two separate and independent reviews. One review is conducted by the tenured faculty of the department, while the Chair of the Department conducts the other. Recommendations from the Committee and the Chair are forwarded to the College. Two additional independent reviews are conducted at the College level, one by the College tenure advisory committee, composed of tenured faculty, and the other by the Dean of the College. Recommendations are then forwarded to the Vice President of Academic Affairs (VPAA). The VPAA shall forward his/her recommendations to the President. The President will then conduct his/her own review and makes final recommendations to the Board of Regents for all those faculty members the President judges fully qualified and deserving of promotion and/or tenure. Faculty are given the opportunity to appeal negative recommendations at all levels. For more information, and a list of guidelines please see the Departmental Governance website\(^1\)

\(^1\)http://www.cs.westga.edu/Department/Governance