CSC 102Q—Computers in Math (Mathematica)               Fall, 2010

Sec. 01 (#1161 Mon  1–2:50pm     BE3165)               Sec. 04 (#1164 Thu  1–2:50pm     BE3165)
Sec. 02 (#1162 Tue  1–2:50pm     BE3165)               Sec. 06 (#1166 Fri  1–2:50pm     BE3165)
Sec. 03 (#1163 Tue  3–4:50pm     BE3165)

Professor:       Greg Langkamp
Office:          SAM 413    Hours: Daily 10-10:50am, or by appointment
Phone:           (206) 587-3810
E-mail:          glangkamp@sccd.ctc.edu

Text:
The SCCC Mathematica Tutorial and other Mathematica materials are available for viewing or downloading from either the course WAMAP page or the SCCC Math Department Website ( http://seattlecentral.edu/learn/math/ )

Student Software:
Through the support of a major grant from the Gates Foundation, Seattle Central Community College is able to offer every student in CSC 102Q a free, personal copy of Mathematica. Seattle Central students are granted a license to install the software on their home computer and use it to support their education at Seattle Central. The license remains in effect for as long as the student continues to enroll at Central. On the first day of class I will provide you with a Mathematica CD and instructions on how to install and activate the program. You must return the CD to me by the time of the final exam (preferably earlier).

Course Website:
All information, materials and assessments (homework and final exam) as well as your grades are available on the CSC102Q website at www.wamap.org. You will be registered into WAMAP automatically for this course.
Username:  9 digit SID    Password: Last 4 digits of SID

About the Course:
This course is a hands-on introduction to the basic commands and features of Mathematica, an advanced computer mathematics program that supports symbolic algebra, large scale computing and advanced 2D and 3D graphics, as well as scientific report writing. The course is designed to prepare you to use Mathematica in your math class as soon as possible. It consists of three parts:

Two in-class sessions: Two scheduled class sessions in which you’ll learn the basics of Mathematica and begin work on the online SCCC Mathematica Tutorial. Session One will begin with an introduction to the Mathematica notebook interface and a step-by-step demonstration of the structure and functionality of the SCCC tutorial. This will be followed by individual student work on the tutorial. Session Two will begin with a question and answer session on the tutorial. This will be followed by a demonstration of the use of palettes, drawing tools and graphics editing tools. Attendance at both sessions is mandatory. Failure to attend and participate in either of these sessions will impact your grade.

Out-of-class work: You are responsible for completing the SCCC Mathematica Tutorial independently. It would be wise to work out a personal schedule now that allows you to put in five or six hours of practice in addition to the two in-class sessions. You should complete the Mathematica Tutorial by the end of the second week of the class so that you will be ready to take the Mathematica Proficiency Test (final exam) during the third week. There are two required homework assignments. These will be administered over the internet using the WAMAP system. I will explain how this works during the first class meeting.

Exam: The Mathematica Proficiency Test (Final Exam). This exam will begin promptly at the start of class; you will have 75 minutes to complete it. The Proficiency Test is based on the material developed in the SCCC Tutorial. It consists of describing or performing basic Mathematica tasks necessary to use the program successfully in your math course. The test will be short-answer in format (similar to online Homework questions). You will have access to Mathematica during the Proficiency Test. A shortened form of the Mathematica Reference Card will be available to you during the final exam. No other notes are allowed.
Schedule:

<table>
<thead>
<tr>
<th>Section</th>
<th>Session One (Intro, Math)</th>
<th>Session Two (Palettes, Drawing Tools, etc.)</th>
<th>Session Three (Final)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 1161</td>
<td>Monday, Oct. 4 1-2:50 pm</td>
<td>Monday, Oct. 11 1-2:50 pm</td>
<td>Monday, Oct. 18 1-2:50 pm</td>
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<tr>
<td>02 1162</td>
<td>Tuesday, Oct. 5 1-2:50 pm</td>
<td>Tuesday, Oct. 12 1-2:50 pm</td>
<td>Tuesday, Oct. 19 1-2:50 pm</td>
</tr>
<tr>
<td>03 1163</td>
<td>Tuesday, Oct. 5 3-4:50 pm</td>
<td>Tuesday, Oct. 12 3-4:50 pm</td>
<td>Tuesday, Oct. 19 3-4:50 pm</td>
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<tr>
<td>04 1164</td>
<td>Thursday, Oct. 7 1-2:50 pm</td>
<td>Thursday, Oct. 14 1-2:50 pm</td>
<td>Thursday, Oct. 21 1-2:50 pm</td>
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<tr>
<td>06 1166</td>
<td>Friday, Oct. 8 1-2:50 pm</td>
<td>Friday, Oct. 15 1-2:50 pm</td>
<td>Friday, Oct. 22 1-2:50 pm</td>
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How your grade is calculated for this course:
This course counts for one credit. You will receive a standard numeric grade. If you do not want a numeric grade in this course, you must request an audit (N) grade before the 10th day of the quarter and file the appropriate form in the registration office. After the 10th day, you may request a signature authorizing an audit grade or a withdrawal but only if you do so before the proficiency (final) exam. After the proficiency exam, no such requests will be granted. Regardless of your grade status (numeric or audit), you must still earn the equivalent of a 2.0 to demonstrate Mathematica proficiency for any calculus course (or higher math course) at SCCC. Here is the point distribution upon which your final grade is calculated.

| Attendance at first & satisfactory start on tutorial | 10 |
| Attendance at second session & satisfactory work on worksheet | 10 |
| Homework No. 1 | 16 |
| Homework No. 2 | 14 |
| Proficiency Test | 72 |
| Return Mathematica CD by time of exam | 3 |
| Total points possible | 125 |

Percentage, $P$ | Grade
--- | ---
$P \geq 92$ & 4.0
$87 \leq P < 92$ & 3.7
$84 \leq P < 87$ & 3.3
$80 \leq P < 84$ & 3.0
$75 \leq P < 80$ & 2.7
$70 \leq P < 75$ & 2.3
$65 \leq P < 70$ & 2.0
$60 \leq P < 65$ & 1.7
$55 \leq P < 60$ & 1.3
$50 \leq P < 55$ & 1.0
$P < 50$ & 0.0

When and Where to Work:
Except for the two In-class sessions, and the Final exam, there are no other required class meetings. You should arrange to work on the Tutorial at times that are convenient for you. You can work on the tutorial on your home computer or at school. The best place to work on the Tutorial at school is in the open Math Computer Lab, SAM 101, which is open Mon-Thu 1-6pm, and Fri 1-5 pm. You may also work in the main College Computer Center, Room 3148 which is also open on Saturdays. Up-to-date information on room availability is posted by each room.

PLEASE NOTE: The staff on duty in the College Computer Center (Room 3148) is not trained in Mathematica and therefore will not be able to help you with questions on the Mathematica Tutorial. Please come see me if you have a question regarding the Mathematica Tutorial. Or ask the Open Lab (SAM 101) tutors. You can also send me a question in a WAMAP message.

Students With Disabilities Statement
If any student has any documented hearing, visual or learning disability—or has any circumstance that requires special needs or accommodations (including emergency medical information, or require special arrangements for building evacuation)—it is his/her responsibility to see me as soon as possible (within the first week of class). Please come during my office hours, or arrange with me before or after class, a convenient time for us to meet and go over options to improve your learning environment.