

**Math 0998  
Support for Mathematical Modeling  
Departmental Course Syllabus**

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| <b>Information for the instructor</b> |
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The following are the objectives for this course:

**Student Learning Outcomes:**

Upon completion of this course, students will be able to:

1. Represent quantitative relationships from a variety of applications using appropriate mathematical models, and use such models to solve real-world problems;
2. Extract, express, manipulate, and evaluate quantitative information in algebraic, graphical, numeric, and verbal form;
3. Use appropriate technology to manipulate and evaluate quantitative information.

**Text: College Algebra in Context with applications for the managerial, life, & social sciences, 6<sup>th</sup> ed., by Harshbarger & Yocco, publisher: Pearson. This is the same text as used in Math 1101. No additional text is needed.**

**\*\*This course is designed to be taken concurrently with MATH 1101, as co-requisite support.**

**-:Course Outline:-**

**Topics are parallel to those of MATH 1101.**

| <b>Chapter</b> | <b>Topics</b>   |
|----------------|---|
| P, 1.1-1.4     | Calculator Arithmetic<br>Define Functions, notations, models<br>Graphs of Linear Functions<br>Linear Functions, slope, rate of chg, revenue, cost, marginal cost, rev. & profit.<br>Equations of lines, write equations of lines, parallel, perpendicular |
| 2.1-2.4        | Linear Models, Equations, & Inequalities<br>Graphical Solutions<br>Zeros, x-intercepts, solve for specific variable<br>Linear exact & approx. models<br>Linear Regression, goodness of fit<br>Applying models   |
| 3.1-3.5<br>4.4 | Quadratic Functions, parts of parabola<br>Vertex form of Quad. Function<br>Solving Quad. Equations by graphing<br>Piecewise Functions   |

|                               |  |
|-------------------------------|--|
| <p>5.1-5.7<br/>Omit 5.6</p>   | <p>Absolute Functions<br/>Power Functions<br/>Quadratic &amp; Power Models<br/>Compare different Models<br/>Inequality Functions<br/>Exponential Functions, Equations, &amp; Models<br/>Logarithmic Functions &amp; Models<br/>Investing<br/>Logistic &amp; Gompertz Functions</p> |
| <p>6.1 – 6.6<br/>Omit 6.4</p> | <p>Higher Degree Polynomial Functions<br/>Cubic &amp; Quartic Modeling<br/>Solutions of Polynomial Equations by Graphing<br/>Rational Functions &amp; Equations<br/>Polynomial &amp; Rational Inequalities</p>   |

**\*\*Listed below is information for the syllabus**

**\*\*Information for the Academic Integrity section:**

**Academic Integrity:** Instructors should provide a statement explaining their expectations for academic integrity and detailing how incidents of cheating and plagiarism will be handled in the class.

From VSU’s Academic Integrity Code (the full code is available at <http://www.valdosta.edu/academics/academic-affairs/vp-office/academic-honesty-policies-and-procedures.php> )"Academic integrity is the responsibility of all VSU faculty and students. Faculty members should promote academic integrity by including clear instruction on the components of academic integrity and clearly defining the penalties for cheating and plagiarism in their course syllabi. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the faculty members’ syllabi. All students are expected to do their own work and to uphold a high standard of academic ethics."

**\*\*Information for the SOI Statement:**

**Sample SOI Syllabus statement**

At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are

anonymous to instructors/administrators, and they will be able to access results only after they have submitted final grades. Before final grade submission, instructors will not be able to see any responses, but they can see the percentage of students who have or have not completed their SOIs. While instructors will not be able to see student names, an automated system will send a reminder email to those who have yet to complete their SOIs. Students who withdraw or drop a course will also be sent invitations to complete the Dropped Course Survey. Complete information about the SOIs, including how to access the survey, is available on the [SOI Procedures webpage](#).

**\*\*Information about withdrawals:**

Undergraduate students are limited to 10 course withdrawals during their enrollment at VSU and may withdraw “passing” before Midterm. Students must initiate the withdrawal using Banner. 11 or more withdrawals will be changed to WF – withdraw failing and is calculated in the student’s GPA as an “F”. Students cannot withdraw after Midterm unless the student is leaving school entirely, which is referred to as a “hardship withdrawal.” The student needs to see the Dean of Students to initiate a hardship withdrawal.

A student cannot continue in Math 0998 after withdrawing from Math 1101 during the semester. A student registered in Math 0998 will exit the course by passing Math 1101 with a grade that satisfies the minimum grade requirement for the course at VSU. A grade of D in Math 1101 will exit the student from Learning Support but some majors do require a C or higher in math.

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|---|
| <p><b>Additional Instructor Information</b></p> |
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**Drop versus Withdraw:** At VSU, a “drop” is part of the normal registration process. Students can register for their classes as they desire when Banner is open for registration. The last registration period for Fall and Spring generally ends on the fifth day of the semester (Friday), so students can add and drop courses up until that point with no help needed from anyone. If a student drops a course, then she/he does not have to pay fees for that course. For students who attend class beyond the first week of class, a withdraw is appropriate, not a drop. Students can use Banner to withdraw from class up until midterm without anyone’s permission. When a student withdraws, they do not get a reimbursement of fees, and the withdraw counts toward the student’s five-withdraw maximum.

Of course, that’s the ideal. Now the Registrar’s Office also has a Late Registration Add/Drop Form that it provides students to add/drop a course from their schedule after the online registration period. This seems like mixed signals, but the paper form is only supposed to be used in extenuating circumstances. If a student brings a drop/add form for you to sign as the instructor of the course being added or dropped, then please

carefully read the instructions on the form. According to the drop instructions on the form, if a student has attended class “beyond the online registration period,” which ends on the fifth day of the semester (Friday), then we are not supposed to allow the student to drop at this point. Generally, if a student has an extenuating reason on the form and you wrote “N” to state that the student has not attended the class, then the department head signs the form and the form successfully makes it through the bursary and registrar’s.

For more information, see the “Drop versus Withdrawal” document on the network V: drive in the Math\Syllabi folder.

**Academic Calendar:** For important dates for each semester (last day for drop/add, proof rolls, midterm, exam schedule) <http://www.valdosta.edu/about/events/>

### **Optional Items taken from the VSU Syllabus Page:**

Student Success Portal: The [Student Success Portal](#) provides an interactive dashboard, student profiles and messaging tools for faculty, advisors and student support staff to easily assess student performance and risk indicators that may contribute to or hinder students from being successful in their programs. It combines early alert flagging with predictive analytics to track and improve student performance. If faculty are planning to use this tool as part of the course, they may want to consider a syllabus statement such as the following:

### **VSU Success Portal**

This resource is invisible to you, but you need to know about it all the same. Faculty are strongly encouraged to use this portal to report student problems related to attendance and performance. These "alerts" activate support services across campus, who then reach out to you to help you address problems. I will use this portal to alert these support services for students who aren't attending class regularly, aren't submitting work to BlazeVIEW regularly, or who earn less than a C on any paper assignment.

### **Blazer Creed**

Information about the Blazer Creed: At the First Year Student Convocation, all students sign the [Blazer Creed](#). Instructors may wish to distribute the creed and discuss its application to their class.

### **Campus Carry**

If faculty wish to include any information about HB 280 (“Campus Carry”), just provide a reference to the University System of Georgia website

at [http://www.usg.edu/hb280/additional\\_information](http://www.usg.edu/hb280/additional_information). This page contains an overview of the policy and FAQs. You could also reference VSU's page at <http://www.valdosta.edu/administration/finance-admin/police/campuscarry/>.

## **Counseling Services**

The following statements have been prepared by VSU's Counseling Center for those instructors who would like to direct their students to their services:

### **Brief Syllabus Statement: 61 words**

The VSU community is committed to and cares about all students. If you or someone you know at VSU feels overwhelmed, hopeless, depressed, and/or is thinking about dying by suicide, supportive services are available and effective. For immediate help contact the University Police at 229-259-5555 who will contact appropriate resources for support. More information and local resources are located at <http://www.valdosta.edu/student/student-services/counseling-center/>.

### **Basic Mental Health Syllabus Statement: 101 words**

As a student, you may experience a range of challenges that can interfere with learning, such as strained or violent relationships, death and loss, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. VSU services are available and treatment does work. You can learn more about confidential mental health services available on campus at: <http://www.valdosta.edu/student/student-services/counseling-center/>. 24 hour emergency help is also available through the University Police at 229-259-5555 who will contact on-call counselors or appropriate resources for support

### **Signs and Resources Syllabus Statement: 184 words**

The VSU community is committed to and cares about all students. Recognizing the signs and symptoms of mental health problems can help you or others to consider seeking care that can help. These are some signs that may be reason for concern:

1. Feeling hopelessness, worthlessness, depressed, angry or guilty
2. Withdrawal from friends, family and activities that used to be fun
3. Changes in eating or sleeping patterns
4. Feeling tired or exhausted all of the time
5. Trouble concentrating, thinking, remembering or making decisions
6. Restlessness, irritability, agitation or anxious movements or behaviors
7. Neglect of personal care
8. Reckless or impulsive behaviors (e.g., drinking or using drugs excessively or being unsafe in other ways)
9. Persistent physical symptoms (e.g., headaches, digestive problems or chronic pain) that do not respond to routine treatment
10. Thoughts about death or suicide\*

Treatment for mental health problems is effective. More information and resources are located at The Counseling Center website at: <http://www.valdosta.edu/student/student-services/counseling-center/>. 24 hour emergency help is also available through the University Police at 229-259-5555 who will contact on-call counselors or appropriate resources for support.

**Personal Investment Syllabus Statement: 174 words**

Diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal academic performance. The source of symptoms might be strictly related to your course work; if so, please speak with me. However, problems with relationships, family worries, loss, or a personal struggle or crisis can also contribute to decreased academic performance. VSU provides mental health services to support the academic success of students. The Counseling Center offers free, confidential services to help you manage personal challenges.

In the event I suspect you need additional support, I will express my concerns and the reasons for them, and remind you of campus resources (e.g., Counseling Services, Dean of Students, etc.) that might be helpful to you. It is not my intention to know the details of what might be bothering you, but simply to let you know I am concerned and that help, if needed, is available. Getting help is a smart and courageous thing to do -- for yourself and for those who care about you.

**BIT Team Syllabus Statement: 115 words**

If you, or someone you know, needs support, is distressed, or exhibits concerning behavior, help by making a referral to the BIT Team. The VSU BIT Team's purpose is to promote a safe and productive learning, living, and working environment by addressing the needs of students. As your professor, I may contact the BIT Team to seek support for you. I encourage you to fill out a referral if you or a classmate are in need of help. There are several ways to contact the BIT Team:

- 1) For more information about the BIT Team at <http://www.valdosta.edu/administration/finance-admin/police/b.i.t.-behavioral-intervention-team.php>;
- 2) Email your concern to [vsubit@valdosta.edu](mailto:vsubit@valdosta.edu); or
- 3) Fill out the anonymous Concerning Behavior Reporting Form at [https://publicdocs.maxient.com/reportingform.php?ValdostaStateUniv&layout\\_id=3](https://publicdocs.maxient.com/reportingform.php?ValdostaStateUniv&layout_id=3)

This departmental syllabus provides required information for creating your Math 0998 syllabus. You can use your own preferred formatting style. Please fill in the areas highlighted in red and delete any optional items that you do not use.

Math 0998 Support for Mathematical Modeling  
{Semester, year} {CRN #} {Section}  
2 Credit Hours {meeting dates/times}  
Nevins Hall {room #}  
Mathematics Department  
Valdosta State University

**Instructor Information:**

Name: {Your name}

VSU email address: {email address}

Math Department Phone: 333-5778

Office # {location}

Office Hours: {list hours available}

Instructor's office phone: {ph #}

**Pre-requisites:** Placement into course by University guidelines.

**Co-requisite:** MATH 1101.

**Required Text:** No additional text is required other than that which is required by MATH 1101 (College Algebra: In Context: with applications for the managerial, life & social sciences (5th Edition) by Harshbarger and Yocco ; access code to MyMathLab also required). Currently Math 1101 is a Day1 course and all needed electronic materials will be available on the first day of class. A code for this support course will be available from the instructor.

**Other Required Resources:** {That which you are requiring your students to have like calculators, notebooks, MyMathLab, Blazeview, etc...}

**Out of class activities:** {optional}

**Course Description:** Corequisite support to provide essential quantitative skills needed to be successful in Math 1101.

**Student Learning Outcomes:**

Upon completion of this course, students will be able to:

1. Represent quantitative relationships from a variety of applications using appropriate mathematical models, and use such models to solve real-world problems;

2. Extract, express, manipulate, and evaluate quantitative information in algebraic, graphical, numeric, and verbal form;
3. Use appropriate technology to manipulate and evaluate quantitative information.

**Grading:**

30% attendance; 70% classwork

**Grading Scale:**

A, B, C, or F as mandated by USG

A = 90-100

B = 80-89

C = 70-79

D = 60-69

F = Below 60

**Class Overview:** Students will work on their individual assignments, including online homework, with occasional classroom lectures or worksheets.

**Withdrawal from classes:** Students cannot withdraw from Math 0998 without also withdrawing from Math 1101. Be sure you discuss withdrawing with the instructor and probably your adviser.

**Attendance & Tardiness:** Attendance is expected. A student who misses more than 6 of the classes will be subject to receiving an unsatisfactory grade in the course.

{List how you count tardies and whether you excuse absences or not as well as the number of absences you allow. Also, state how tardies and/or absences affect the final grade, if this is part of your grading procedure.}

**Classroom Conduct:** {Include your expectations of students' behavior in the classroom. Be sure to include a statement of what electronic devices (ex. Cell phones, calculators, etc) are allowed. If classroom conduct can affect the final grade, then state your policy.}

**Academic Integrity:** {Include your policy concerning cheating on class work and the consequences. See the paragraph on Academic Integrity on the second page of this document. The following paragraph is required by VSU.} By taking this course, you agree that all required course work may be subject to submission for

textual similarity review to Turnitin, a tool within BlazeVIEW. For more information on the use of Turnitin at VSU see [Turnitin for Students](#).

**SOI Statement:** At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators, and they will be able to access results only after they have submitted final grades. Before final grade submission, instructors will not be able to see any responses, but they can see the percentage of students who have or have not completed their SOIs. While instructors will not be able to see student names, an automated system will send a reminder email to those who have yet to complete their SOIs. Students who withdraw or drop a course will also be sent invitations to complete the Dropped Course Survey. Complete information about the SOIs, including how to access the survey, is available on the [SOI Procedures webpage](#).

**Accommodations Statement:** Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 245-2498 (Phone), 375-5871 (Video Phone) and 245-3788 (Fax). Email is [access@valdosta.edu](mailto:access@valdosta.edu).

**The Academic Support Center:** The Academic Support Center (ASC) provides free peer tutoring in core curriculum courses, including sciences, math, writing, social sciences, humanities, and foreign languages. The ASC also provides supplemental instruction (tutor-led study group sessions) for historically difficult courses like biology, chemistry, geosciences, psychology and sociology, as well as academic success workshops. Call 229-333-7570 to make an appointment, email at [asc@valdosta.edu](mailto:asc@valdosta.edu), or visit the website: [www.valdosta.edu/asc](http://www.valdosta.edu/asc). Located in Odum Library, on the 2<sup>nd</sup> floor.

**Title IX Statement:** Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, disability, genetic information, or veteran status, in

the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: the Director of the Office of Social Equity, [titleix@valdosta.edu](mailto:titleix@valdosta.edu), 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31698, 229-333-5463.

**\*\*Additional items you wish to add:** {Share additional items that you think will help students be successful in your class. These could include the items listed in the faculty section of this document taken from VSU's Syllabus page: <https://www.valdosta.edu/academics/academic-affairs/syllabi.php> }