Fall 2006

Instructor's Manual for Math 25L/26L, Math 31L, and Math 32L

Contents **Page**

Teacher Resources on the Web

http://www.math.duke.edu/first_year/

Click on the apple at the bottom of the page.

(You will need to get the username and password from Lewis Blake.)

This site contains this manual, classroom handouts, additional information about exams, gateway tests, etc, and some samples of old tests.

Michael Reed and Lewis Blake

August 8, 2006

Crucial Information

1. Texts: You can see someone in the main Math Department office for copies of the textbook, course pack, and solutions manual. We will use *Calculus*, fourth edition, by Hughes-Hallett, et al, for Math 25L/26L, 31L and 32L. The lab instructions and additional text material for Math 31L and 32L are in one course pack, and the material for Math 25L/26L is in a different course pack. Both course packs will be printed locally and sold in the textbook store.

2. Syllabus: Copies of the syllabus for all of your students will be put in your mailbox. Extra copies are available in room 123 or from the web. You must cover all material and labs indicated on the syllabus. Some flexibility is allowed as discussed on page 2.

3. Labs. Your classes must do all labs as scheduled on the syllabus. Students should work in groups, and lab work should count a significant portion of students' grades. There will be weekly meetings of the Lab Instructors and Assistants to prepare them for lab. The Math 31L Classroom Instructors should grade the reports from the first lab, *Log Plots*, and at least one other lab. The Math 32L Classroom Instructors should grade the reports from an early lab, such as *Probability and Geometric Series*, and at least one other lab, such as *Normal Data Sets* or *Limited Immunity in Epidemics*. All other lab grading may be delegated to the Lab Instructors and Assistants. For more information see page 3.

4. Calculators. Students are expected to use the TI-83 calculator in labs, unless they request and pass a Calculator Proficiency Test for another model. You and your Lab Instructor should keep copies of this test so you can provide them to students who request them. The classroom teacher is not expected to provide technical, calculator help to students; however, if you do classroom demonstrations that require a calculator (we encourage you to do so), then you should use a TI-83 (which we will loan you).

5. Tests. Three major tests are scheduled on the syllabus.

6. Homework. You should either give quizzes on homework or collect homework papers. If you want to collect homework papers and have them checked by an undergraduate grader, then see a secretary in the departmental office to request a grader. There is more information on homework on page 2.

7. Duke Community Standard. This is Duke's version of an honor code. It is a university requirement that students confirm on each assignment their adherence to the Duke Community Standard. More information is on page 6.

8. Final Exam and Grading. There will be a block final exam, which all calculus students take at the same time. For each course there will be a grading scale based on the scores of all students in that course. You are required to turn in semester grades with a letter grade distribution that is *approximately* the same as your class's letter grade distribution on the final exam. For more information see page 8.

9. Course Supervisors. Each of Math 25L/26L, Math 31L, and Math 32L will have a course supervisor. Any questions about the syllabus or topic coverage should be directed to that person.

Syllabus and Homework

1. Policy. You must cover all lessons on the syllabus.

2. Homework. The writers of the final exam will assume that all students have worked all problems on the syllabus. If some homework problems need to be changed, an announcement will be made to all teachers. Send any recommendations in that regard to Lewis Blake.

Should you collect and grade homework? Several members of the Calculus Committee believe that giving weekly homework quizzes is preferable to collecting homework. The quizzes remove the need for dealing with daily papers and a grader, and quizzes increase the individual accountability of the students. The biggest problem with giving homework quizzes is finding enough class time to do so. On the other hand, if you decide to collect and grade homework, then you may request in the departmental office that you get an undergraduate grader. (Often we cannot find enough graders until the second or third week of classes.) If you make arrangements for a grader, keep in mind that the grader should spend only about four hours a week on the papers from one class of 30 students. You will, of course, need to explain to your grader exactly how you want the papers to be graded.

3. Acceptable modifications to the syllabus. You may make minor changes in the order of lessons during a week or minor changes to adjust for pace, but you must cover all topics on the syllabus, as scheduled, unless we make a joint decision to make a change during the semester.

4. The Math 31L and Math 32L syllabi. In addition to the syllabus which is distributed to students and posted on the web, there is an "Instructor's Version of the Math 31L Syllabus" and an "Instructor's Version of the Math 32L Syllabus." These versions are the same as the others, except that some notes have been added to help teachers know what to emphasize, why topics are where they are in the syllabus, and how to handle difficult parts of the syllabus. A copy of the Instructor's Version of the syllabus will be put in your mailbox. You can also download a copy from the resources web site (see paragraph #4 on page 11).

6. The Math 25L and Math 26L syllabi. The Math 25L and Math 26L syllabi have been written by Jim Tomberg. He will hold periodic meetings with the teachers to go over nuances of that syllabus. All questions about that syllabus should be directed to him.

Lab Information, Policies, and Choices

1. Purpose. The main purposes of the laboratory are to deepen the students' understanding of the concepts of calculus and to show students the importance of calculus in other disciplines. Secondary purposes are to encourage student initiative in investigating and using calculus and to help students learn the social and communication skills necessary for group work.

2. Stand-alone Labs. Each lab contains all the instructions and material necessary for the lab. During each lab period the Lab Instructor and Lab Assistant should organize the lab groups, help the lab groups get started on the lab, answer questions, and administer quizzes (if any).

3. Calculators. Students are responsible for bringing and maintaining their own graphing calculators. No canned software is used and no labs require programming of the calculator. We require that students use the TI-83, unless they can pass a Proficiency Test with another calculator. (These tests are available from the resource room (see page 12). Either the Lab Instructor or the Classroom Instructor can hand the test to a student who requests one. The students will take the test on their own time, and the Lab Instructor will grade the completed tests.) Classroom Instructors and Lab Instructors and Assistants can borrow calculators from the Math Department (room 117). We have already judged the TI-83+, TI-84+, and the TI-86 to be acceptable calculators.

4. Lab Presentations. There should be no necessity for the Lab Instructors to give lectures in the lab period, although brief introductions are usually helpful.

5. Classroom Preparation for Lab. Usually no special preparation for lab need be done by the Classroom Instructor. If the Classroom Instructor follows the syllabus, then the students will have all the background they need for the labs when they occur.

6. Final Exam. Lab material will be covered on the final exam.

7. Quizzes versus Reports. Each lab ends with clear instructions for a “Report.” Modest modifications of the report instructions (or quizzes) may be made by the Lab Instructor with the approval of the Classroom Instructor. We strongly recommend that teachers collect reports on the first lab, since writing reports about mathematics will be new to many students. In some cases we have alternative “short report” forms which can be used instead of requiring long reports. Samples will be given out during training, and you can ask Lewis for others that may be available.

Some instructors have found it useful to replace some lab reports with lab tests (or quizzes) given in the classroom or in lab at the beginning of the next lab period. This practice encourages individual responsibility both during the actual lab and in the students' reviewing of the lab content. We believe that a reasonable balance is to give four or five reports and four or five quizzes. At most half the lab reports may be replaced by quizzes. For a discussion of group work and individual responsibility, see page 5.

8. Grading. We recommend that the Classroom Instructors in Math 31L grade the first lab (*Log Plots*) and at least one other lab. We also recommend that the Math 32L Classroom Instructors grade the reports from an early lab, such as *Probability and Geometric Series*, and at least one other lab, such as *Normal Data Sets* or *Limited Immunity in Epidemics*. Grading the labs is more subjective than the usual grading in mathematics since one is grading grammar, style, and clarity of exposition as well as mathematical content. One should resist the temptation to avoid making distinctions among reports by giving all B's (or all A's) .

9. Preparation for Lab Assistants. There will be 20-minute meetings with all of the lab instructors and assistants each week to go over that week's lab, to discuss how to deal with the difficulties of group work, and to answer questions. Teachers are not required to attend these meetings, but they are welcome to do so and it's an excellent opportunity for the teachers to make contact with their lab assistants.

10. Responsibilities of the Classroom Instructor. The laboratory is an integral part of the course, and the ultimate responsibility for the conduct of the labs rests with the Classroom Instructor. However, most of the labor and some of the responsibility can be delegated to the Lab Instructor and the Lab Assistant. The Classroom Instructor should decide whether to deviate from the “report instructions,” whether to have a lab quiz or a report, and who should grade the report or quiz. The assignment of lab groups and the making of quizzes can be delegated when the Classroom Instructor has confidence in the Lab Instructor to do so.

11. Responsibilities of the Lab Assistants. It is the responsibility of the Lab Instructor and Lab Assistant to conduct the laboratory sessions in a thoroughly professional manner under the supervision of the Classroom Instructor.

Group Work and Individual Responsibility

Group work is an important feature of our Laboratory Calculus course. We have found that group work has several benefits:

- Group work is fun for most students because it is a social, as well as an intellectual, activity.

- Group work forces students to discuss mathematics (and applications) with each other. It increases their ability to communicate what they have learned to others, and it reinforces their understanding of the material.

- Group work helps students of different genders, races, and nationalities to learn to work together.

On the other hand, group work may lead to difficulties:

- Sometimes weak or lazy students do not contribute to their groups—preferring to ride on the work of others.

- Group work can sometimes lead to conflict among students and complaints by students about each other. Such conflicts and complaints must be handled carefully by the Classroom Instructor and the Lab Instructor.

Each Classroom Instructor should weigh the above factors in deciding the right balance between group and individual work in his or her section. Of course, one would like to maximize the benefits and minimize the difficulties. Experience has shown that explaining the following policy helps alleviate the first difficulty:

> *All group members who have contributed to joint work must sign their names to the work.*

It is a violation of the Duke Community Standard for group members to allow another group member who has not contributed to the work to sign it. This policy gives working group members a strong rationale for saying “no” to a non-working group member who wants his or her name added.

Tests

1. Duke Community Standard. The *Duke Community Standard* is Duke's version of an honor code. That code requires that students, by their signatures, acknowledge personal adherence to the *Standard* every time they submit a paper for grading. The Duke Community Standard is quoted below:

The Duke Community Standard

Duke University is a community of scholars and learners, committed to the principles of honesty, trustworthiness, fairness, and respect for others. Students share with faculty and staff the responsibility for promoting a climate of integrity. As citizens of this community, students are expected to adhere to these fundamental values at all times, in both their academic and nonacademic endeavors.

The Pledge

Students affirm their commitment to uphold the values of the Duke University community by signing a pledge that states:

1. I will not lie, cheat, or steal in my academic endeavors, nor will I accept the actions of those who do.
2. I will conduct myself responsibly and honorably in all my activities as a Duke student.

The Reaffirmation

Upon completion of each academic assignment, students will be expected to reaffirm the above commitment by signing this statement: "I have adhered to the Duke Community Standard in completing this assignment."

[Student Signature]

2. How many tests? The syllabus has three in-class tests scheduled, because that is the number of tests recommended by the calculus committee.

3. How hard should tests be? It is a good idea for teachers to compare tests with other teachers to be sure that the level of difficulty and expectation is consistent.

4. Open or closed book? Your tests and quizzes may be open–book or closed–book, but keep in mind that the final exam will be closed–book.

5. Samples. There are old tests on file in the resource room (123) and posted on the web. (See paragraph #4 on page 11 for more information.) Note that tests and quizzes more than a few years old will be based on a different edition of the textbook.

6. "Gateway" (Barrier) Tests. All teachers are required to administer a differentiation gateway test in Math 31L and an integration gateway test in Math 32L. You may write your own test or use one of the ones on file in the resource room. To pass the test a student must work all but one of the problems perfectly. A student may attempt to pass as many times as necessary, but you should administer a different test each time. If a student does not pass the gateway test by the end of the semester, then you must report an "Incomplete" for the student's grade, and the student will have to return after the end of the semester to pass the test. Note that even after you convert the "I" to a grade, the fact that the student received an "I" remains on the student's transcript.

7. Final Exam. All teachers will administer a Departmental, in–class, closed–book final exam, which will be block graded by teachers and graduate assistants. The Chair of the Calculus Committee and the Supervisor of First-year Instruction will determine the method of writing the exam. **Each student will be allowed to bring to the exam one standard–size sheet of typewriter paper, on which the student may write whatever formulas or notes he or she wants**. Both sides of the paper may be used, and the notes may be typed, but the notes must be the student's own creation. Using a sheet of notes created by another student is not allowed. The grading scale for the exam will be made by the SFI and will be based on the scores of all students. **The distribution of your class's scores on this exam determines approximately the distribution of letter grades which you are allowed to give to your students for the semester**. More information on the exam and grading is under the section "Grading Policies."

Grading Policies

1. General Guidelines. Within the following guidelines, Classroom Instructors determine how much weight the parts of the course get in computing the final course grade:

Homework and/or Homework Quizzes: 0%–15%

Homework is considered group work since many instructors encourage students to work together (and in any case students often do work together). Some instructors give regular homework quizzes instead of collecting homework.

Laboratory work: 25%–40%

As explained in the discussion of the labs, instructors can give lab quizzes instead of requiring reports for up to one half of the labs. Reports are group work.

Hour tests: 20% - 40%

Final Exam: 25%–33%

The performance of each class on the final exam affects the distribution of final grades in the class. See "The Final Exam and Semester Grades" in part 2 below.

If an instructor has homework graded (with no quizzes) and counts the lab 40% with no lab quizzes, then group work will be 55% of the course. On the other hand, if the instructor has homework quizzes, counts the lab 25% with one half of the lab reports replaced by quizzes, then group work counts for $12\frac{1}{2}$% of the course grade. It is strongly recommended that each of these extremes be avoided.

Here are three reasonable formulas for determining semester grades. Formula 1 emphasizes individual accountability, and Formula 3 emphasizes group work. Formula 2 approximates a more commonly used combination. A teacher who uses Formula 3 should be a discriminating critic of student reports, lest the teacher fall victim to the "B syndrome," which is described in paragraph 3 below.

	Formula 1	Formula 2	Formula 3
Group lab reports:	15%	25%	35%
Lab quizzes:	15%	10%	5%
Collected homework:	0%[1]	3%	5%
Homework quizzes:	7%	2%	none
Tests:	30%	30%	30%
Exam:	33%	30%	25%

Keep in mind that you will have to submit grades that correlate with your class's performance on the exam. To this end you should consult regularly with other teachers and compare tests. New teachers should also look at some past exam grading scales. (The scales from last fall and last spring are attached.)

[1]In this case the teacher could use the student's homework record to help make a borderline grading decision at the end of the semester.

2. The Final Exam and Semester Grades.

The final exams will be block graded by teachers and assistants. After the block final exam is graded, the SFI will, in consultation with some others, make a grading scale for the final exam. Some recent grading scales are attached for your information, but keep in mind that each semester the scale will likely be different. **The semester grades that you turn in for your class must correlate closely with your class's grade distribution on the final exam**. This does not mean, for example, that the number of B's you submit must be exactly the same as the number of B's that your students make on the final, but the number should be very close. Within the B and C ranges, —'s should be used about as often as +'s, and A^+'s should be rare. Furthermore, unless you request and are granted an exception by the SFI, no student may be given a semester grade which is more than one letter grade above that student's grade on her or his performance on the individual portion of the course without the permission of the SFI.

The SFI will also designate a "mandatory F" score, which will be based upon students' scores on the final exam. Any student who scores below the mandatory F on the final exam must receive an "F" for the course, unless, upon appeal from the teacher on behalf of the student, an exception is granted by the SFI or the DUS. Before the final exam, you should explain to your students the policy concerning the mandatory "F."

If a student misses the final exam, then university policy is that you must submit an "X" for the student's semester grade. That "X" will be converted to an "F" if the student's dean does not excuse the absence within 48 hours after the exam. If the dean does excuse the absence, then the "X" will be converted by the dean to an "I" (*Incomplete*), and you will be notified by the dean that a make-up will be necessary.

You should be very careful how you explain your grading policy to students. Some students may be intimidated by the block final and they may misinterpret what you say about these grading policies. For example, some students may think that their semester grade is determined solely by the final exam, and others may think that each class has a strict quota of A's, etc, as determined by the exam. Both impressions are false, because teachers have some leeway. You should emphasize the protection the block exam affords students in the sense that all teachers must interpret semester grades in approximately the same way. In fact the real effect of having a block final takes place long before the final is given: it forces teachers to cover all the material, and it encourages them to compare their tests, grading policies, and grading scales with those of other teachers throughout the semester. This process helps to ensure that students in all sections are being treated and tested in a fair, consistent manner. By the time the exam arrives, everything usually falls into place.

Any exceptions to the grading guidelines above must be approved by the SFI or the DUS, and the teacher must submit a written explanation of the exception to the SFI.

3. **Beware the B Syndrome**. You will have a big problem if you allow your grades during the semester to bunch around a B. For example, suppose you count lab work 40%, homework papers 5%, and the exam 30% of a student's grade. If you assign group reports from all labs, then at least $\frac{45}{70}$ of each student's work *going into the exam* will be group work. In the past some of our teachers who were new at grading reports tended to award report grades between C^+ and A^- (i.e., few teachers wanted to "defend" the assignment of an F or a D to a report, and it is a rare paper that most teachers judge to be A-level work). If this situation

occurs in your class, then most of your class may have a B average entering the exam, and if your class's exam scores are distributed typically, then you will face a severe problem in trying to make your semester grades meet Departmental requirements with respect to the distribution of the semester grades as compared to the distribution of exam grades. We have given this phenomenon a name, "the B syndrome," because it has occurred several times.

4. Missed Work and Official Excuses. The University's policy regarding dean's excuses is set forth on the web site http://www.aas.duke.edu/trinity/t-reqs/deansexcuse.html . Some of the following information is taken from that page:

The student may obtain an excuse from his/her dean for the following reasons:

- Long-term illness
- Personal or family emergency (known to and approved by the student's dean)
- Authorized representation of the University off campus

For a **short-term illness** the student should fill out and submit the "Short-term Illness Notification" on-line at

http://www.aas.duke.edu/trinity/t-reqs/illness/.

The student affirms with an electronic signature that he/she has adhered to the Duke Community Standard, and we must treat this as an excused absence. An electronic copy of this notification will automatically be sent to the student's dean, so the dean will eventually find out if a particular student is abusing this system.

If a student misses graded work and is excused, then you have several options:

- Give a make-up test or quiz.
- Prorate the rest of the student's work to replace the missed grade.
- Replace the missed grade with the student's exam grade at the end of the semester (usually for major tests in this case).
- In the case of a report you can require the student to complete the work alone.

When you explain your policy about absences and make-ups to your students, give yourself some leeway, and make it clear that it's your decision—not theirs. You are encouraged to discuss individual, difficult cases with the Supervisor of First-year Instruction or another experienced teacher.

Supplies, Aids, and Miscellaneous Information

1. Dropping and Adding. Through the first two weeks of classes, students may drop or add through the ACES web registration system. During the second week of classes (which is also the last week of the drop/add period), students must have permission to enter any class. During that second week, if a student is already in another section of the course you're teaching and wants to transfer to your section, then you should go ahead and issue a permission number if there are seats available. To confirm that a student actually is in another section, you can simply ask the student to show you his or her schedule. (Paragraph #9 below has information on how to get permission numbers.) No students, except under extraordinary circumstances, should enter or leave your class after the second week. Such circumstances will include a few students whom we will transfer from Math 41 to Math 31L, or from Math 103 to Math 32L, or from Math 31L to Math 25L after their first test. If any enrollment questions arise, see the SFI to resolve them.

2. Administrative Information for Students. The following matters should be taken care of on the first day of class:

a. Tell students your name and office location. Tell them about the Calculus Help Room (see paragraph 3 below), the lab hours, and about your procedure for holding personal conferences.
b. You should tell students about the final examination, and explain your policy on quizzes, tests, lab reports, and homework. You should also tell them how you will handle missed work and how you will determine their final grades.
c. Give copies of the syllabus to all students.
d. Tell students that they can find information such as a complete help room schedule and placement guidelines at the web site **http://www.math.duke.edu/first_year/**

An efficient way to disseminate most of the information above is to put it on a "policy sheet" and pass copies out on the first day of classes. A sample is attached at the end of this pamphlet.

3. Help Room. For students in Math 25L/26L, 31L, and 32L we will operate a help room where students can go to get assistance with their mathematics. Teachers are asked to participate in the help room in lieu of holding office hours. Teachers should see students in their offices only for personal conferences. You can sign up for the help room in the Math Department Office.

4. Resource Center. There are a file cabinet and shelves in room 123 dedicated to storing teaching material that could be useful to you. The file cabinet contains copies of old tests and quizzes, worksheets, teachers' handouts, and samples of "policy sheets." You may copy these materials and use them, but please leave the originals in the resource center. We will also maintain additional information and resources for teachers on the web. You can access this information by going to the web site *http://www.math.duke.edu/first_year/*. and clicking on the apple at the bottom of the page. You will need to get the user name and password from Lewis Blake.

5. Instructor's Solutions Manual. The Instructor's Solutions Manual for the fourth edition of the Hughes-Hallett textbook are available to teachers on-line. See Lewis Blake for information on how to access the manual. If you employ a homework grader, the grader may also be given access to the manual. At least two printed copies of the Solutions Manual will be kept in the Help Room for students' use.

6. Solutions to Labs. On many labs there are some keys or partial keys and some notes filed in a drawer in room 123. If you consult these notes or make copies of them, please be sure not to remove them from room 123 other than for a brief trip to the copy room. There will be weekly meetings of the lab assistants, and copies of some of these notes on each lab will be passed out to them at these meetings.

7. Tutors. In the Math Department Office there is a list of undergraduate and graduate students who will do individual tutoring for a fee. (This list is also maintained on the Math Department's web site given in 2d above.) Also, any student may get an individual tutor free of charge through the Trinity College Peer Tutoring Program (684–8832) located on the second floor of the Academic Advising Center (a.k.a., Pre–Major Center). Tutoring is also available through the Athletic Department (Brad Berndt, 684–2120) and the Minority Affairs Office (684–6756). **Our Department does not allow anyone who is currently teaching a course or assisting with a course to work as a paid tutor for that same course**.

8. Student Absences. Anytime a student has been unexpectedly absent from class for a long time you should inform the SFI and the student's dean. The dean for first-year Trinity College students is Dean Michele Rasmussen (micheler@aas.duke.edu) in the Pre-Major Center (telephone 684-6217). You may also call Dean Donna Kostyu (donna.kostyu@duke.edu) who is an assistant to Dean Rasmussen. The associate dean for first-year engineering students is Dean Simmons (csimmons@acpub.duke.edu) in the Teer Building (telephone 660-5387). Keeping the deans informed is potentially a matter of the physical and psychological welfare of the student.

9. The World Wide Web. At the web site, http://www.math.duke.edu/first_year/, you and students can find details about math placement and introductory courses. If you set up a web page for your section of calculus, please send Lewis Blake (blake@math.duke.edu) the address so it can be linked from the course home page. We will also make use of the Registrar's electronic “Blackboard” to post copies of teachers' test so all students can have access to them. You can access information about your class online from the Registrar's web site, http://www.registrar.duke.edu/ . Click on the “Faculty and Staff” link, and then look for the “Faculty/Staff Login” near the bottom of the page under STORM. You must have gotten a “DukeNet ID” to be able to login. (If you don't have one, you should see a secretary in the Math Department office to sign up.) You can see and download your class roll, and you can find permission numbers for your class. **But before you consider issuing any permission numbers, please read paragraph #1 above “Dropping and Adding.”** The Registrar's office will no longer print and mail class rolls to teachers.

10. Problem Working Sessions. The Help Room should make holding special problem sessions unnecessary. Nevertheless, if you want to hold extra—necessarily voluntary—problem sessions for your classes, see a secretary in the Math Department Office to reserve a room. **Because of the danger of inadvertently compromising the block final exam, at the end of the semester you should not hold any comprehensive review sessions nor should you give out any comprehensive review sheets**. You may, instead, hold problem–working sessions wherein the students choose the problems to be worked. Also, the administration requires that no scheduled group meetings with students, even voluntary ones, be held after the end of classes. You may, of course, continue to hold office hours as long as you wish.

11. Instructor Absences. Make a reciprocal agreement with another instructor to take your class in case of illness. Inform Lewis Blake anytime that you will not teach your own class, and let him know who your substitute will be.

12. Religious Holidays. Although the University does not officially recognize religious holidays, you should try to avoid scheduling tests or quizzes on such days.

TO: Math 31L Teachers

FROM: Lewis Blake, Supervisor of First-year Instruction

Grading Curve for the Fall 2002 Math 31L Final Exam

A	180-200	13.3%
B	151-179	48.5%
C	113-150	30.3%
D	90-112	5.8%
F	$\leq$ 89	2.1%
MF	$\leq$ 70	(none)

High score: 198 out of 200

Median: 156

Students who made less than the mandatory F level on the final exam shall not be given a passing grade for the course without the approval of Lewis Blake (SFI) or Arlie Petters (DUS). Each instructor should use these exam grades and grades from the labs and classroom to determine the course grade. The use of + or - with each letter is left to the discretion of the instructor. Remember that the distribution of your semester grades should approximate the distribution of your class's exam grades. For your reference I have attached an excerpt from the Instructor's Manual that pertains to grading.

You should turn in your original grade report to Sunny, who will fax a copy to the Registrar. That report is due by Monday morning. Also, please give Sunny the completed Grade Summary for your sections.

Students may see their exam papers, of course, but we are required to keep them on file for a year. After a year, you should destroy the exam papers.

TO: Math 32L Teachers

FROM: Lewis Blake, Supervisor of First-year Instruction

Grading Curve for the Fall 2002 Math 32L Final Exam

A	166-200	16%
B	128-165	44%
C	83-127	34.7%
D	68-82	1.3%
F	≤ 67	4%
MF	≤ 45	

High score: 197 out of 200

Median: 133

Students who made less than the mandatory F level on the final exam shall not be given a passing grade for the course without the approval of Lewis Blake (SFI) or Arlie Petters (DUS). Each instructor should use these exam grades and grades from the labs and classroom to determine the course grade. The use of + or - with each letter is left to the discretion of the instructor. Remember that the distribution of your semester grades should approximate the distribution of your class's exam grades. For your reference I have attached an excerpt from the Instructor's Manual that pertains to grading.

You can fax a copy of your official grade report to the registrar. That report is due by Monday morning. Also, please give Sunny a copy of your semester grade report and the completed Grade Summary for your sections.

Students may see their exam papers, of course, but we are required to keep them on file for a year. After a year, you should destroy the exam papers.

TO: Math 25L Teachers

FROM: Lewis Blake, Supervisor of First-year Instruction
Jim Tomberg, Coordinator of Math 25L

Grading Curve for the Fall 2002 Math 25L Final Exam

A	157-200	10.5%
B	124-156	33.3%
C	76-123	42.6%
D	64-75	7.4%
F	≤ 63	6.2%
MF	≤ 40	

High score: 184 out of 200

Median: 119

Students who made less than the mandatory F level on the final exam shall not be given a passing grade for the course without the approval of Lewis Blake (SFI) or Arlie Petters (DUS). Each instructor should use these exam grades and grades from the labs and classroom to determine the course grade. The use of + or - with each letter is left to the discretion of the instructor. Remember that the distribution of your semester grades should approximate the distribution of your class's exam grades. I have attached an excerpt from the Instructor's Manual for your reference.

You should turn in your original grade report to Sunny, who will fax a copy to the Registrar. That report is due by Monday morning. Also, please give Sunny the completed Grade Summary for your sections.

Students may see their exam papers, of course, but we are required to keep them on file for a year. After a year, you should destroy the exam papers.

Math 31L Sections 1 and 2 Fall 2005

1. **Instructor:** Lewis Blake

2. **Office:** Location: 118 Physics Building
Phone: 660-2800
E-mail: blake@math.duke.edu
Hours: Private conferences are made by appointment through Ms. Harris in room 121 (660-2800) of the Physics Building or by email to me. Mathematical assistance outside of class and lab will be available in the Help Room (See paragraph number 11 below.). I will be in the Help Room from 2:00 – 4:00 on Wednesdays.

3. **Information on the Web:** The web site *http://www.math.duke.edu/first_year/* contains information that concerns first-year calculus students. For example, you can find placement guidelines, course home pages (with syllabi), a list of tutors, the help room schedule, and a link to the "Short-term Illness Notification" at this site. This course also has a multi-section page on Duke's "electronic Blackboard," the address of which is *blackboard.duke.edu*. I have some old tests posted there, as do some other teachers. All the 31L teachers will post this semester's tests shortly after they're given.

4. **Textbooks:** *Calculus*, fourth edition, by Deborah Hughes-Hallett, et al.; and the *31L-32L Coursepack* for *2005-2006* (also known as the "Lab Manual").

5. **Homework Assignments:** Reading assignments and homework exercises are listed on a separate syllabus. You should be prepared to turn in your solutions to the exercises on the class day following each lesson. Some (but not all) assignments will be collected and checked. If, after working the assignment, either you do not understand the material or you are not proficient at working the problems, then you should work additional problems on your own. You are encouraged to work in groups and to visit the Help Room (see #11 below), but your written answers must be your own work in your own words. There will be some quizzes on homework. The quizzes and the collected homework assignments make up part of your semester grade as described in paragraph # 10 below.

6. **Laboratory Work:** We will have weekly laboratory explorations that make use of a scientific, graphing calculator. The department requires that you use the TI-83, unless you are granted an exception by passing a calculator skills test using your own calculator[2]. After some labs you will be asked to turn in a group report, and after others you will be given a lab quiz.

[2]You can request the calculator test from me and take it on your own time.

7. **Tests:** There will be approximately 3 homework quizzes, 5 lab reports, 4 lab quizzes, 3 major tests, and a Departmental final exam. There will also be a differentiation barrier test, known as the "Gateway Test," which you may take as often as is necessary to pass it. The gateway test will not affect your grade, except that if you don't pass it by the day of the final exam, then you will receive an "incomplete" for the semester.

8. **Missed Tests and Quizzes:** Absences from tests or quizzes will be excused by your dean only for reasons such as serious illness, family emergency, or official university activities. If you are absent for one of these reasons, then you must present a written excuse from your dean. If you are absent because of a *short-term illness*, then you should complete the online "Short-term Illness Notification," which is linked from the web page described in paragraph 3 above. If your absence is excused, then in the case of a missed major test, I will assign a grade based either on your score on the final exam relative to others in the class or on your other major tests or on a make-up exam (my choice). If you have an excused absence from a quiz, then I will either assign your quiz grade based on your other quiz grades or I will give you a makeup quiz. In the case of an absence long enough to prevent you from participating in a written lab report, then you will be required to complete the lab and write a report on your own.

9. **Team Work:** The lab work and the associated reports will be done in teams. I will make the team groupings, which I will change periodically. When a team's work is turned in, the names of all partners should be on the paper. If one partner did not fully participate, then that person's name must be omitted; furthermore, a second report from the missing partner will not be accepted at a later date without a dean's excuse.

10. **Semester Grades:** I will base your semester grade on the total number of points accumulated from the different parts of the course. (Notice that this total is neither an average nor a percentage.) In the table below I have *estimated* the number of points for the semester that will come from each part of the course. Note that individual quizzes and reports may be assigned different numbers of points. Furthermore, in deciding borderline grades at the end of the semester, I will take into account the punctuality, regularity, and degree of completeness with which you did your homework.

	Estimated Points
Lab reports (5):	150
Lab quizzes (4):	120
HW quizzes(3):	60
Tests (3)	300
Final Exam	200
Total:	830

11. **Assistance:** The Math Department operates a Help Room where students can get assistance on a walk-in basis. The Help Room is staffed by calculus teachers and assistants, and is located in Room 132 of Carr Building on East Campus. It is open for about 40 hours a week, and you can find a detailed schedule at the web site http://www.math.duke.edu/first_year/help.html. Trinity College also provides individual tutoring through the Peer Tutoring Program, located on the second floor of the Academic Advising Center.