INTRO. TO PROBABILITY & STATISTICS (MA171)

SUMMER 2002, Dr. SUJAY DATTA

Dept. of Math. & Computer Sci., NMU

SYLLABUS, RULES & REGULATIONS

- Meeting time: 7:30-9:40 (M.Th.W.Th.)
- Textbook: *'General Statistics'* (Warren Chase & Fred Bown), 4th ed., with students' version of MINITAB
- Syllabus: First 9 chapters, and *possibly* a little bit of Chapter 10 (if time permits)
- Instructor's whereabouts: Office in New Science Facility(#1107), phone # 227-1584
- Office hours: M. Th. W. Th. 9:45-10:45 A.M.
- Tools required: Any scientific calculator with the necessary statistical functions will be fine, but if you are going to use anything other than the TI-Interactive on your IBM Thinkpad, it is your responsibility to read and learn from the manual. However, you can also use the MINITAB software that comes with your textbook, to avoid buying a new calculator. MINITAB (on your Thinkpad) will be extensively used, and may render a calculator unnecessary.
- Prerequisite: A "C-" or better in MA103 or MA104 or MA105, or a clear recommendation by the placement test. Anyone without these must see me in my office during the first week of classes to discuss eligibility for this course. In such cases, one's performance in the mathematics aptitude test (that will be given during the first week of classes) becomes the basis for eligibility.
- Evaluation & grading: (a) There will be 3 class tests (1 every two weeks) and several short quizzes (one every week). At the end of every day's lecture, a few homework problems will be given and at the end of the week (i.e. on Thursdays), these homework problems will be discussed in the class. During these discussions, students will be sent to the chalkboard to solve problems within a given amount of time and their performance will be recorded (as "did correctly" or "couldn't complete but was on the right track" or "had no clue"). Homework assignments will only occasionally be collected and graded (2 or 3 times during the entire course), but it is strongly recommended that you do all the homework problems for your own benefit. Near the end of the course, there will be a group project involving MINITAB and at the end of the semester there will be a final. The class tests will be worth 35 % of your final composite score, the quizzes will be worth 300/0, the group project will be worth 5 %, the graded homework will be worth 5 % and the fim1l will be worth 15 %.
  (b) The lowest class test score, the lowest quiz score and the lowest homework grade will be automatically dropped. No class test, quiz or homework will be individually curved. However, there will be a curve at the ~ of the semester. The final is a 'must'.
  (c) The remaining 10 % of your final composite score will be reserved for class participation (i.e. solving problems on the board in the class, answering questions thrown at you during the lecture, etc.) and attendance (i.e. how regularly you are coming to the lectures). Records of these will be kept for each of you individually.
- Grade ranges: A final composite score of 90 % or above is an 'A', at least 85 % and less than 90 % is an 'A-', at least 80 % and less than 85 % is a 'B+', at least 75 % and less than 80 % is a 'B', at least .70 % and less than 75 % is a 'B-', 65 % - < 70 % is a '0+', 60 % - < 65 % is a '0', and so on.
- Instant failure.: There are certain things which will instantly bring you an 'F' grade (no matter how well you do in the other categories). You will get an 'F' if (a) there are more than 5 days of *unexcused absences* (an absence is *unexcused* if, upon returning to class, the student does not

immediately come to my office to discuss what he/she has missed and collect the associated study-material), or (b) you fail to maintain at least a '0' or 60 % in the category "class participation and attendance" all through the semester. (Here's how to compute your approximate grade in this category for yourself: divide the # days you have been in the class by the *total* # class-days until today, and convert it to a percentage by multiplying it with 100. Then divide the # times you have answered a question or solved a problem in the class *correctly* within the given time-limit by the *total* # questions you have been asked, and then convert it to a percentage (Note: I am talking about the questions that you are specifically asked by name, not the general questions thrown at the whole class). The average of these two percentages is your grade in this category. But you can come and ask me anytime what your grade is, if you are not sure), or (c) your composite score (based on everything that you have done so far) falls below 0 (i.e. 60 %) and <u>you ignore</u> my request to come and see me (or a MATH LAB tutor designated by me) for help regularly until your composite score rises above 0 (in other words, visits to me during my office hours or by appointment and/or to a tutor is <u>mandatory</u> for anyone performing below the 0 level).

- What you should expect from this course: (a) a good *working knowledge* in the topics covered and an adequate experience in data analysis (you may *not* have enough time to become *experts*, but we'll try!) (b) a lot of problem solving in the class (sometimes from the textbook, but often from outside), (c) explanatory handouts and notes whenever necessary, (d) answers to all tests, quizzes and homework problems, (e) prompt grading of tests and quizzes (usually you will get them back within the same week), (f) plenty of help outside the class. Just see me during my office-hours or make appointments.
- What you should NOT expect from this course: (a) DON'T expect the tests and quizzes to be easy! They will be closed-book, will have questions from outside the book, will have questions not discussed in the class (just to encourage you to be innovative). In short, they will be *challenging* and sometimes *hard*- to really make you *think*. (b) DON'T expect that *everything* will be covered in the class. You will have to put in a lot of efforts at home to supplement what is done in the class. (c) DON'T expect the grading standard to be too easy or lenient. Usually I am a strict grader and don't give away A's easily. You'll have to earn your good grade! (But don't worry too much! I do give partial credits and second chances to improve upon low scores). (d) DON'T expect that we will *always* stick to the book. We will often go outside it and cover materials in a different order than it. For example, I may sometimes ask you to skip a section from your textbook and read it entirely from my handouts. (e) DON'T expect that "learning to use a calculator or a software package" is our main objective in this class. It is NOT! I'll teach you how so solve problems on your Thinkpads, but you MUST also learn how to do them *by hand* using mathematical and statistical techniques (that's our primary goal!).
- What I expect of you: I hope you will (a) attend lectures regularly and keep yourself up- to-date, since it is *impossible* to catch up with the materials covered over a six-week period at the last moment, (b) ask a lot of questions in class whenever you have doubts (don't worry! NO question is 'foolish'.), (c) not miss a lot of quizzes/class tests/home works (by the way, NO makeup quiz is allowed at anytime, and only makeup class tests for "excused absences" are allowed), (d) come to the class prepared, so you can participate in the class discussion, and (e) be attentive to the <u>lectures/problem sessions</u> instead of surfing the WEB or playing with your laptop (I will be <u>seriously offended</u> if I find you doing so).
- You shouldn't be in this class if: (a) you don't have the prerequisite or a recommendation from the math. placement test, (b) you think you won't be able to avoid the things (listed above) that entitles you to a straight 'F', (c) you think the items mentioned above under the headings "What you should expect from this course", "What you should not expect from this course" and "What I expect of you" are unacceptable to you. Good Luck & Thanks!

- Disability-related services: If you have a need for disability-related accommodations and services, please inform the Coordinator for Disability Services at 1104 University Center (phone # 227-1737). Reasonable and effective accommodations and services will be provided if requests are made in a timely manner, with appropriate documentation and in accordance with Federal, State and University rules.