Guidelines for Advisors of Undergraduate Mathematics Majors

Mathematics Department requirements: Currently there are three tracks of study in the Department of Mathematical Sciences: The regular mathematics major, the applied mathematics track and the track in actuarial science. Regardless of which track a student is intending to go into all mathematics majors must take and pass the courses: Math 191, Math 192, Math 291, Math 279 and Math 280. A student in the regular mathematics track must also take and pass Math 331, Math 332, and six more upper division courses with the prefix Math or Stat, of which at least four must be courses numbered above 400. Courses that may not be used for these six required courses are listed in the catalog. A regular mathematics track student must also take and pass either CS 171 or EE 161 and CS 272.

In terms of required credit hours for the regular track undergraduate mathematics major, there is room for a student to get a minor in another subject. (The mathematics department requirements, the UGE and A&SC requirements only add up to about 100 credit hours total. A student must have 128 credit hours to graduate.) Inform each student you advise of this fact as soon as possible, and help each student to explore what minor subject would be interesting to the student and beneficial for his/her future career plans.

A student in the track for applied mathematics must take and pass Math 377, Math 392, Stat 371, Math 471, Math 472 and Stat 470. In addition the student must take and pass two more upper division courses with the prefix Math or Stat, at least one of which must be a course numbered above 400. The student must also take and pass one of CS 171 or EE 161 and at least 9 more credit hours in an approved cluster area. A cluster that is not an official minor (or major) in another department or that is not one of the cluster areas listed on the applied mathematics track description must be approved by the Undergraduate Mathematics Majors & Minors committee.

Robert Smits will be advising undergraduate majors who are in the track for actuarial science.

Except as specifically designated in a particular mathematics track description, we do not allow courses taken outside the Department of Mathematical Sciences to count as fulfilling a departmental requirement for a degree in mathematics. All courses prefixed by Math or Stat that are taken to fulfill a requirement for a degree in mathematics must be taken for a letter grade and passed with a C- or better.
STAR audits: When a student asks to be advised, first ask the student if he/she has an idea of which courses to take in the upcoming semester. Regardless of the student’s answer, you should check the student’s STAR audit. The best way to do this is to ask the student to log into MYNMSU, choose Student and Financial Services, and click on degree audit. The student can then log into STAR and request a degree check for main campus, Arts & Sciences, BS in mathematics, plus whichever catalog year the student is planning to graduate under. A student can graduate under any catalog starting from the time he/she entered NMSU, but only up to six years ago.

The STAR audit is the closest item to an official degree check that currently exists for students with majors in College of Arts & Sciences departments. You should always check this audit before advising a student on what classes to take. The STAR audit lists all courses the student has taken since entering NMSU, along with evaluation of transfer credit. Deficiencies in requirements show up in red; requirements that have been fulfilled show up in blue. If something is wrong with the STAR audit (for example, the student tells you that transfer credit has not been recorded), contact Hilda Olivas.

Most of the time, if a student plans on graduating in four or even in five years, the student should be taking two courses from the list of mathematics department and non-departmental requirements. If the student wants to take more than two courses that meet Mathematics Department requirements in a semester, that’s usually fine, but you should check on whether you think the student can handle more than two courses in the required courses list, and you must check on whether the student is making reasonable progress in fulfilling University General Education (UGE) requirements and Arts & Sciences Core (A&SC) requirements.

General requirements: There are two advising sheets, according to catalog year, that list these last two sets of requirements. Apparently the College of Arts & Sciences is planning to change the double list of requirements by getting rid of the Arts & Sciences Core requirements, and by making the second language requirement the choice of each department. However, unless these changes are voted in as being retroactive, students who graduate under the older catalogues will still have to go by the old double set of requirements.

The two advising sheets are in the current College of Arts & Sciences Advising Manual. The yellow sheet is for catalogs prior to 2006-2007, the
lavender sheet is for catalogs 2006-2007 and later. Due to some uncertainty about requirements in the year 2006 - 2007, the last I heard was that a student can choose to graduate under the older set of requirements (the yellow sheet). The two sets of requirements are listed in double column format: the UGE requirements in the left column, the A&SC in the right-hand column. All of these requirements can be cross-listed (meaning one course can be used to fulfill one UGE requirement and one A&SC requirements simultaneously) except the English composition requirements and the Viewing a Wider World requirements under UGE, and the second language requirement under A&SC. Try to help the student fulfill these two sets of requirements as efficiently as possible - specifically try to minimize the number of courses the student must take for this purpose. Only courses taught in the College of Arts & Sciences can be used to fulfill A&SC requirements. Almost any course taught in an A&S department will fulfill the A&SC requirement in that area; however, relatively few courses will fulfill the UGE requirements: these courses are listed on the advising sheets along with the stated requirement. There is a rule that says that nine credit hours in a single department will fulfill any UGE requirement; however, this means that if a student does not take one of the designated UGE courses to fulfill a specific UGE requirement, he/she must take three other courses to fulfill that same requirement.

**Basic skills:** Freshmen and sometimes sophomores who haven’t managed to take the first English composition course as freshmen, should be urged to take English 111G/H as soon as possible. (A foreign student whose English is not proficient enough for English 111G will be required to take SPCD 111G instead.) Eng 111G fulfills a university basic skills requirement in English. A student must fulfill the basic skills requirements in English and in Mathematics before he/she is allowed to take upper division courses. Usually a mathematics major will already have fulfilled the basic skills requirement in mathematics by the time you talk to him/her. A student can fulfill basic skills in mathematics by passing CCDM 114N (or any higher level math course) or by earning an ACT score of 23 or higher in mathematics.

**Overloads:** Entering freshmen are not allowed to take an overload (more than 18 credit hours in one semester). If a more advanced student wants to sign up for an overload he/she must have written permission from the advisor and the department head to add whichever course goes over the 18 credit hour total.
**Computer science:**  Try to advise students not to take CS 110G. All our regular and applied mathematics track students are required to take either CS 171 or EE 161. CS 110G is not required for either of these courses. The Computer Science Department allows students to substitute EE 161 for CS 171, and so does the Department of Mathematical Sciences. We allow students to take CS 171 and 272 on an S/U basis.

**Upper division credit:** Keep an eye on how much upper division credit a student is earning and how much more must be taken. Each student must take at least 48 credit hours of upper division work to graduate. Students who change majors tend to earn more lower division credit hours than they really need.

The university does not allow a student to transfer a course that was taken as a lower division course at another institution to count as upper division credit at NMSU. This can cause confusion since a student may have a community college course transfer as Math 392 on his/her transcript, but this course will not be counted as being upper division. The Math Dept. does not allow such a transfer course to count as fulfilling an upper division Math or Stat elective for the undergraduate degree in mathematics.

A student who uses an upper division course to substitute for a lower division mathematics course requirement cannot also count that same upper division course as a required upper division elective. For example, several of our majors substitute Math 480 for the required course Math 280. In this situation, the student must take at least four more Math or Stat courses numbered above the 400 level. Math 480 cannot also count for fulfilling one of these four requirements if it is being used to substitute for Math 280.

**Graduate level courses:** An undergraduate who wants to take a graduate level course and have it count for the undergraduate degree must obtain written permission to do so. Any graduate level course that is taken for this purpose while a student is still an undergraduate will be counted for undergraduate credit only. To have a graduate level course count as graduate level credit, a student must be admitted, at least tentatively, to the Graduate School. A graduate level course can not be counted as fulfilling both undergraduate and graduate level credit.

**Viewing a Wider World:** All students with a major in the College of Arts & Sciences must take and pass two courses designated as VWW. These two courses must taken outside the College of Arts & Sciences, and each
of the two must be taken in a different college outside A&S. For example, a student can take one course in the College of Education and one course in the College of Business to fulfill the VWW requirement, but the student CANNOT fulfill the requirement by taking two courses in the College of Education. A student who has a double major with his/her majors in two different colleges will only have to take one VWW course in a third college. The reason for this is that the student will automatically be fulfilling one of each of his/her major college’s VWW requirement under the nine hour rule by work required for the major in the other college.

**The second language requirement:** Up until now, every student graduating from the College of Arts & Sciences must demonstrate proficiency in a language other than English. This can be done in several different ways. Any student who has taken and passed three years of a second language in high school is considered to have such proficiency and can obtain a waiver for the requirement of a second language. Any student who can demonstrate proficiency in a language other than English to the Department of Language and Linguistics (or to the Native American Programs if the language happens to be a Native American language such as Navaho) is considered to have met the second language requirement. Otherwise a student can complete two years of a second language at NMSU. The sequences are numbered, for example, French 111G, 112G, 211 and 212. Native speakers of Spanish will be placed in a special sequence of courses numbered Spanish 113, 213 and 214. Students who have taken less than three years of a second language before coming to NMSU will be placed at the appropriate level in the sequence of four semesters to continue their studies. American Sign is another option for fulfilling the requirement of a second language. In addition, participation in a study abroad program can be used to fulfill the language requirement.

The NMSU catalog is the official document for academic rules and procedures. However, last year’s catalog was not clear about a number of the changes which have been voted in as the result of NMSU deciding to adopt the New Mexico common core requirements.. The easiest way to find information is to look in the College of Arts & Sciences Advising Manual. When in doubt call Arts & Sciences Student Advising in Breland Hall, 646-2941.

Compiled by C. Sweezy on 09/05/07