

Undergraduate Affairs Committee
January 25, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Pillay, Schupp, Snapp, Wright

Member absent: Stolarsky

The minutes of the December 7, 2004 meeting were approved.

McCarthy suggested that the department change the scores that students must achieve on the AB and BC advanced placement calculus exams in order to receive credit at UIUC. Currently a student receives credit for first semester calculus by scoring 3 on the AB exam or 2 on the BC exam, and receives credit for second semester calculus by scoring 3 on the BC exam. Our department recommends that students scoring 3 on either exam in fact take the course for which they earn credit from the exam. Many students do not take this advice. Such students average a grade of C+ in their next calculus course, and their mathematics grades deteriorate thereafter.

McCarthy presented data showing that many peer institutions require a score of 4 on the AB exam to receive credit for first semester calculus and a score of 4 on the BC exam to receive credit for second semester calculus. He suggested that our department adopt these standards as well. The discussion produced no opposition to this suggestion. It was pointed out that a student scoring 3 on the BC exam, who would receive no calculus credit under the proposed change, had the option to take a proficiency exam in either course.

The committee voted unanimously to adopt the suggested changes in the standards for receiving advanced placement credit in calculus. McCarthy will convey these changes to Lucy Rich, Assistant Dean of LAS. It is anticipated that these changes will be implemented by the fall of 2005.

McCarthy reported on the feedback he has received thus far from units across the campus on the proposed changes in the calculus sequence. Concerns have been expressed from multiple sources about the effect of the proposed changes on women and minorities. Some, but not all, of the concerns were based on the misunderstanding that students would be forced into the proposed Math 221 who were not prepared for it. Concerns have also been expressed about whether students will receive proper advice as to their best entry point into the new calculus sequence.

Members of the committee were urged to speak to colleagues in the department to see to what extent the department as a whole is aware of the proposed changes in the calculus sequence.

It was noted that at some future time the committee needs to reconsider the placement scores in the calculus proposal in light of the action taken earlier in the meeting.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
February 1, 2005

Members present: Alexander (chair), Ford, McCarthy, Miles, Muncaster, Schupp, Snapp, Stolarsky, Wright

Members absent: Duursma, Pillay

The minutes of the previous meeting were accepted with minor changes.

The Committee approved a new title and course description for Math 118 suggested by Alison Ahlgren. McCarthy will send notice of these changes through the appropriate channels.

In the near future the Committee should hear from Margit Messmer about the experimental section of Math 347 she taught in the fall of 2004. Before her report to the Committee, Miles will give her a summary of the issues concerning Math 347 identified by last year's UAC that led to the creation of the experimental section. McCarthy indicated that Math 347 is currently an imposing hurdle for many students in the secondary education mathematics program.

Muncaster presented the Committee with a list of agenda items for the semester. The first of these concerned honors sections of Math 230 and Math 242. Currently students taking such sections receive a fourth hour of credit by enrolling in Math 249, a one hour course. This is troublesome for the LAS honors program, as there is a rule prohibiting a one credit honors course. This matter was tabled. Further agenda items suggested by Muncaster will be dealt with at future meetings.

There was a discussion of appropriate titles for the proposed new Math 220 and Math 221. There was concern that "Calculus for Beginners" was demeaning to the students. No action was taken.

There was a spirited discussion as to whether the Committee should once again ask for departmental input on the proposed changes in calculus instruction. It was decided that a second request would be made, with a February 14 deadline for responses.

McCarthy indicated that in view of the changes made last week in advanced placement scores required to receive credit in second semester calculus, it might not be necessary to offer Math 236 the first year the changes are implemented.

Joe Miles, Secretary.
UAC

Undergraduate Affairs Committee
February 8, 2005

Members present: Alexander (chair), Duursma, McCarthy, Miles, Muncaster, Schupp, Snapp, Stolarsky, Wright

Members absent: Ford, Pillay

The minutes of the February 1, 2005 meeting were approved.

McCarthy presented to the Committee comments he has received about the calculus proposal both from the department and from members of the College of Engineering. Two concerns were expressed in comments from Engineering. One was that the proposal constituted a change to a 12 credit calculus sequence, thus adding one credit to the math requirement for most students in Engineering. The other was that Engineering would like Math 221 to be offered in the spring semester as well as the fall semester.

McCarthy reported that of approximately 1500 freshmen in Engineering this fall, some 300 took Math 220. He estimated that roughly 200 of those 300 would have taken Math 221 had it been offered. Thus under the proposed changes, less than 10 percent of Engineering students would take a 12 credit calculus sequence. McCarthy emphasized that Calculus I is no longer dominated by Engineering students, but by students in other colleges. The Committee reaffirmed its decision to offer a 5 credit first semester calculus course. McCarthy suggested that the issue of offering Math 221 in the spring was moot, as there would be virtually no audience for it.

Considerable discussion was devoted to implementation of the proposed changes. As McCarthy has received very positive feedback from units on the campus other than Engineering, a supportive reaction from Engineering would guarantee that the proposal would be adopted. A meeting of deans in Engineering is scheduled for late February, after which the department will receive an official reaction to the proposal from Engineering. If the changes are to be implemented this fall, it would be best if a firm decision to do so were made by March 1. Under no circumstances could changes be made after registration for the fall, which begins in April. McCarthy and Muncaster will discuss whether to request a reaction to the proposal from Engineering with a specified deadline.

Other issues concerning phasing in the changes were discussed. McCarthy said that Math 380 would need to be offered for approximately two years after Math 242 is discontinued to accommodate students who had planned to take both courses. It was suggested that the department might simply offer no sections of Math 242 this fall, thus funneling all third semester calculus students into Math 243. Some felt that this was too heavy-handed an approach, and emphasized the importance of maintaining positive relations with other units on campus regarding changes in the calculus sequence.

McCarthy reported that the Committee's suggested changes in awarding AP credit in calculus have been approved in principle by the deans in LAS. Consideration of the proposal to award credit for first semester calculus to a student with a 3 on the BC exam, but with an AB subscore of 4, was inadvertently omitted by the LAS deans in a recent meeting. This issue will be addressed in a March 9 meeting. The deans have requested that the change in credit awarded be effective as of AP exams taken after March 1, but it does not seem at this time that Banner can accommodate this request.

McCarthy said he would favor offering no honors sections of Math 242 in the fall, as students wanting to take honors third semester calculus should take Math 243 instead. He further suggested that honors Math 243 be a three credit course, in line with honors Math 347 and unlike honors Math 230, a four credit course. The Committee was supportive of these suggestions.

The issue of a text for Math 241 was discussed briefly. Both Ford and Pillay have expressed interest in controlling costs to students with regard to textbooks. Miles was suggested as a possible chair of a subcommittee to choose a Math 241 text.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
February 15, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Snapp, Stolarsky, Wright

Members absent: Schupp, Pillay

The minutes of the February 8, 2005 meeting were approved.

Muncaster reported that the department is currently conducting interviews of candidates for teaching positions in Math 016 and Math 125. He also reported that the department is conducting a national search for a Merit Workshop Director. Applications for that position will be accepted for six more weeks, after which interviews will be conducted.

McCarthy reported that he has been invited to a meeting on February 17 of deans and chief advisers in the College of Engineering, the purpose of which is to discuss the proposed changes in the calculus sequence. McCarthy has received strong support for the proposal from the principal adviser in ECE, who will not attend the meeting. McCarthy has also heard that there may be objections to the proposal on the grounds that it creates a 12 credit calculus sequence. McCarthy also reported that additional comments about the proposal from the department have been received.

The Committee decided that the name of both Math 220 and Math 221 should be Calculus I and that the criterion for enrolling in Math 221 should be one year of high school calculus, not necessarily including experience with the AP test.

McCarthy presented a timetable for the proposed changes in the calculus sequence. In the fall of 2005 all sections of Math 242 would be converted to Math 243, with Math 380 unaltered. The possibility of reserving one four-credit section of Math 220 in the fall of 2005 for Engineering students was discussed, with no decision made. For the fall of 2006, the proposed implementation timetable called for Math 243 to be renumbered as Math 241, one large section of Math 221 to be conducted, one section of Math 220 to be eliminated, and two sections of Math 380 to be offered. In the spring of 2007, the last two sections of Math 380 would be offered. The Committee supported this implementation plan. Because of rapidly approaching deadlines for the fall 2005 timetable, on February 18 Alexander, McCarthy, and Muncaster will discuss both the results of the McCarthy's meeting with Engineering and implementation procedures.

McCarthy reported that he has reversed a previous department policy to allow ECE 413 to be substituted for a math course in minors for ECE students.

McCarthy reported that Math 213 is being strengthened and will include substantial proof writing. It is currently an alternative to CS 173 for Engineering students. McCarthy sees the revised Math 213 as a possible gateway course for Engineering students to higher level math courses, serving as an alternative for those students (but not math majors) to

Math 347. The net effect of this revised role for Math 213 would be to encourage Engineering students to take more mathematics; currently the Math 347 prerequisite for these courses serves as a discouragement. Math 213 could also potentially serve as a course counting toward a math minor for Engineering students.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
February 22, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Schupp

Members absent: Pillay, Snapp, Stolarsky, Wright

The minutes of the February 15, 2005 meeting were approved.

Muncaster reported that the interview process has been completed for instructors in Math 016 and Math 125. He also reported that the department is considering filling a new position having responsibilities for TA mentoring, overseeing Math 405 (a course for future high school teachers), and quite possibly creating a new course as well.

McCarthy reported on a meeting he attended last week with deans and advisers in the College of Engineering. Two principal difficulties with the department's proposed calculus revisions were discussed in the meeting. One difficulty is that the proposal implicitly raises the admission standards into Engineering. A high school not offering calculus would not produce students qualified to take Math 221, and thus such students would be considered to have a deficiency in mathematics upon entrance. At the meeting it was brought up that a few years ago ECE proposed requiring the calculus sequence Math 135 and Math 245 for its students, but the proposal was blocked on the grounds that it constituted an increase in entrance standards. The second difficulty is that the earliest the proposed changes could be implemented would be the fall of 2006. Implementation of the changes would require that each engineering department receive approval from the College of Engineering, the Campus, and the Board of Trustees. This process would likely require 18 to 24 months. Currently both CS and ECE are involved in this rather arduous process with respect to matters in their own curricula.

A brief discussion ensued as to how to proceed. McCarthy reported that some in attendance at the meeting who were not in general in favor of the proposed changes nevertheless preferred a 12 credit calculus sequence to the more complicated arrangement involving both Math 220 and Math 221. Several options for apportioning credit among the three semesters of calculus were discussed from the points of view of what is best for the students, the acceptability to Engineering, and the implications for the math department. McCarthy and Muncaster will revisit the effect on the department of various options.

McCarthy reported that Matt Ando is currently involved in strengthening Math 213 to become a legitimate proof-writing course. Math 213 is now required of ECE students, but with the anticipated revisions will become an elective for those students, with the lesser option of CS 173 also available to them. Despite this loss of ECE students,

McCarthy anticipates that the change will ultimately be a net plus for the department, as Math 213 will constitute an alternative to Math 347 as a gateway to advanced math courses, and as a more attractive course will in the long run improve our position with the stronger students in Engineering.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
March 8, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Pillay, Schupp, Snapp, Wright

Member absent: Stolarsky

Guest: Margit Messmer

The minutes of the February 22, 2005 meeting were approved.

Margit Messmer reported to the Committee on an experimental section of Math 347 she taught in the fall of 2004, using the text *A Discrete Transition to Advanced Mathematics* by Richmond and Richmond. Her reaction to the book was on the whole positive. She particularly liked a section devoted to analyzing the thought processes involved in getting started on a proof. On the negative side was the high cost of the book, as well as some sections where the exposition was a bit sloppy. As the title suggests, the emphasis is on discrete mathematics, although sequences and series of real numbers are included. It is a sharp contrast to the more commonly used current text, with a different emphasis in subject matter as well as a lighter style. Her conclusion was that it is a viable option as a text for the course. The Committee will continue its consideration of Math 347, and in particular will examine Doug West's description of the purpose of the course written in 2002.

The Committee unanimously approved a request of Ward Henson to change Math 426, the linear algebra course in the honors sequence, from two credits to three.

McCarthy reported that tomorrow he will attend a meeting of deans of six colleges at which it will be decided whether the changes in AP calculus credit discussed in the UAC meeting of January 25, 2005 will be implemented in the fall of 2005 or the fall of 2006.

McCarthy reported that there is considerable sentiment in the College of Engineering to modify the entrance requirements to include one year of high school calculus. Students meeting this requirement, as did 84% of the most recent incoming class, could then complete an eleven credit calculus sequence that includes the integral theorems of vector calculus. Most other students would enter with a one credit deficiency and would begin calculus with Math 220. It is expected that Engineering will determine its position on this matter in the next two or three weeks. As many high schools in the state, both in rural areas and inner cities, do not teach calculus, it is a politically sensitive issue for a public university to declare students from these schools deficient in their mathematics preparation.

McCarthy reported that a letter of understanding will be sent from the mathematics department to ECE in support of certain curricular changes in the College of Engineering.

These changes involve the courses CS 173, CS 273, and Math 213, and in particular which of these courses fulfill requirements in the ECE and CS departments. Currently both CS 173 and Math 213 are under revision. McCarthy repeated the point he made in the previous meeting that for students in Engineering the strengthened Math 213 should be considered as an alternative to Math 347 as a prerequisite for upper level math courses.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
March 15, 2005

Members present: Alexander (chair), Duursma, McCarthy, Miles, Muncaster, Pillay, Schupp, Snapp, Wright

Members absent: Ford, Stolarsky

The minutes of the March 8, 2005 meeting were approved with minor revisions.

The Committee decided that its next step in considering Math 347 textbook flexibility would be to review the statement of goals for the course written by Doug West for the UAC in 2002. West frequently holds meetings of all Math 347 instructors just prior to the beginning of a semester. Pillay suggested that such meetings be held for all multiple section courses.

Duursma reported that an Information Trust Institute (ITI) has been created on campus by members of the ECE and CS departments. It is concerned with research and education in the secure exchange of information and related topics. ITI would like to involve members of many other departments on campus, certainly including mathematics and some departments in the College of Business. Students in the mathematics-computer science major would be natural candidates to become involved in ITI, but such students are currently required to place a heavy emphasis in their course work on numerical analysis. Duursma raised the question of whether it would benefit students in the mathematics-computer science major, and particularly those with an interest in the ITI program, to create a second option involving courses in a broader selection of topics such as graph theory, number theory, and cryptography. Initial reaction from the CS department to such an expanded list of options for mathematics-computer science students has been mixed. A lengthy discussion ensued concerning the current direction of the mathematics-computer science option, the performance of students in the program both in mathematics and CS courses, and how to reinvigorate the program. It was decided that Duursma and McCarthy would present to the UAC a second option for students in the program, and, once approved by the UAC, a proposal for such an option would be presented to the CS department for reaction.

McCarthy reported that in a March 9 meeting of deans, it was decided that the changes in AP calculus credit discussed in the UAC meeting of January 25, 2005 would be implemented with no deadline on when the AP exam is taken. In other words, a high school student achieving the required score on an AP calculus exam taken at any time would receive AP credit. It is anticipated that the more stringent requirements for AP credit will result in a significant increase in the number of students who, upon arrival on campus, want to take the proficiency exam in one of the first two semesters of calculus. The calculus proficiency exams that are given just as the fall semester begins thus may well be used in a manner for which they were not intended. Some additional care will be needed to ensure that these exams are effective at determining students' calculus standing

and also can be processed in a timely way for a possibly large number of students. The Committee felt that now was an appropriate time to consider revisions of the calculus proficiency exams with respect to content, format, length, and cutoff score required to receive credit. The Committee plans to seek input on this matter from Larry Dornhoff, who is in charge of our department's proficiency exams.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
March 29, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Schupp, Snapp, Stolarsky

Members absent: Pillay, Wright

Guests: Larry Dornhoff, Tom Carty

Muncaster reported that the department has recently filled two positions, one an instructor for precalculus and teacher education courses, the other an instructor for Math 125.

The Committee decided to ask A. J. Hildebrand to join Schupp and Stolarsky in examining possible textbooks for Math 243, keeping in mind the possibly greatly increased enrollment in the course beginning in the fall of 2006. It was suggested that the first book to be considered should be the present calculus text by Edwards and Penney. The five sections of Math 243 to be taught in the fall of 2005 present a good opportunity to try a Math 243 text on a substantial number of students whose mathematical aptitude should closely mirror that of the audience for the course beginning in the fall of 2006.

Alexander distributed copies of a statement of goals for Math 347 written by Doug West. Syllabi for both approved texts in the course will be distributed next week. It was suggested that a detailed minimum syllabus for the course be constructed to provide a guide in evaluating other possible texts for the course.

Dornhoff and Carty joined the Committee for a discussion of the calculus proficiency exams that are administered the Saturday before classes begin in August. Currently the exams last one hour and consist entirely of multiple choice questions. Approximately 100 students took the Math 220 exam last fall. With the increased AP scores required for credit in Math 220 and Math 230, the number of students taking the exams will increase, but it is not clear by how much. In view of the expanded role the exams will play in the future, the question was raised as to whether the exams should be more substantial. It was pointed out that most calculus textbooks now provide supplementary material that includes many multiple choice questions, and thus it would be relatively easy to expand the exams. The Committee decided that it would invite Dianna Armstrong to its next meeting to provide data on the exams, including the passing rate and how students who pass the exams perform in their first calculus course.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
April 12, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Schupp, Snapp

Members absent: Pillay, Stolarsky, Wright

Guests: John D'Angelo, A. J. Hildebrand

The minutes of the March 29 meeting were approved with minor changes.

The Committee agreed with McCarthy's suggestion that a student who has already taken ECE 190 prior to becoming a mathematics major should be allowed to substitute ECE 190 for the CS 101 / CS 125 requirement.

McCarthy requested guidance from the Committee regarding the CS requirement for students transferring into mathematics who have satisfied the CS requirement in another curriculum by taking CS 105. A strict interpretation of the rules would force such students to take either CS 101 or CS 125. There was considerable support for waiving the requirement of an additional CS course for such students whose grade in CS 105 was sufficiently high. This matter will be revisited in the near future.

McCarthy reported that the College of Engineering is anxious for Math 236 to begin in the fall of 2005. Currently an audience of approximately 50 students is anticipated. The course will be taught jointly by Rob Ghrist from our department and Doug Beck from Engineering, supported by a full-time TA from Engineering and a half-time TA from math. The course will need to receive approval by June 1.

McCarthy informed the Committee that sections of Math 490 (Topics in Mathematics) are being taught for which no syllabus has been submitted either to UAC or to an area committee. After considerable discussion, the Committee decided that each instructor of Math 490 should submit a course proposal to UAC for approval. Muncaster will prepare a memo to this effect.

The Committee was joined by John D'Angelo and A. J. Hildebrand for a discussion of texts for Math 243. Schupp reported that Edwards and Penney had an adequate but somewhat thin discussion of the integral theorems of vector calculus, and that Prentice Hall would be willing to supplement that discussion if our department so desired. Other supplementary material might also be provided by members of the department who have taught the material often. D'Angelo reported on his current section of Math 243, which is using the text by Marsden and Tromba. There is a wide range of comprehension among the students in his class. He is not particularly enthusiastic about the text, as he finds it cluttered and containing many false proofs. Hildebrand reported that he prefers the integral theorem discussion in Stewart to that in Edwards and Penney, but that he would certainly find Edwards and Penney acceptable as a text.

There was a discussion of online homework systems associated with Edwards and Penney and with Stewart. The Edwards and Penney system does not work well. The online system associated with the Stewart precalculus text is being used now in Math 116 and seems to be working well. In light of this fact, Schupp and Stolarsky were asked to look at the Stewart treatment of vector calculus. It was brought up that parts of the Calculus and Mathematica discussion of multivariable calculus might be a valuable source as well for material in Math 243.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
April 19, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Schupp, Snapp

Members absent: Pillay, Stolarsky, Wright

The minutes of the April 12, 2005 meeting were approved.

Schupp reported that there were no substantial differences between the vector calculus treatments in the Stewart and the Edwards and Penney texts. McCarthy reported that Prentice Hall has some third semester calculus texts of about 450 pages with costs of about \$100; neither number seemed to have much appeal to the Committee. The consensus was to retain the Edwards and Penney text for next year, while considering the possibility of supplementary material on vector calculus produced either within the department or by Prentice Hall.

Schupp suggested that a new book, *The Number Systems of Analysis*, by Little, Teo, and van Brunt, had an appropriate choice of topics for Math 347. A copy was passed among members of the Committee.

Online homework systems for calculus and other courses were discussed. Muncaster reported that he and others have had positive experiences with WeBWorK, a system that is free to the students and can be used with any text. Two key issues with any such system are how easy it is to register students and how well it handles grades. If we adopt such a system, either a faculty member with release time or a TA would be assigned to handle problems that arise. Some concern was expressed as to whether such an assignment for a TA would unduly divert attention from progress toward a degree.

Muncaster reported that Alison Ahlgren, the department's Quantitative Reasoning Course Coordinator, has informed him that there is considerable overlap between two of our Quantitative Reasoning courses, Math 118 and Math 119, and that furthermore the current content of Math 119 does not conform well to the course description. The UAC would be receptive to Ahlgren preparing a revised Math 119 syllabus to resolve both of these difficulties. McCarthy suggested more broadly that in view of the large and growing number of students taking mathematics courses below the calculus level, the Executive Committee should create a leadership position with duties to oversee all such courses and that the person holding the position should be an ex-officio member of the UAC. McCarthy agreed to write a job description for such a position.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
April 26, 2005

Members present: Alexander (chair), Duursma, Ford, McCarthy, Miles, Muncaster, Schupp, Snapp, Wright

Members absent: Pillay, Stolarsky

The minutes of the April 19 meeting were approved with minor revisions.

McCarthy reported that the Executive Committee of the College of Engineering has endorsed the proposed revisions of the calculus sequence. This means that the changes will most likely be implemented in the fall of 2006, although the proposal still must receive the approval of the Educational Policy Committee of the Faculty Senate.

Schupp reported that calculus texts are available with a more sophisticated approach than those that dominate the market such as Stewart, Thomas, and Edwards and Penney. As examples he brought to the meeting a three semester calculus text by Johnston and Mathews and a vector calculus text by Williamson, Crowell, and Trotter. The UAC needs to make a final decision on a calculus book for the new sequence next fall.

There was continued discussion of online homework systems. Once again WeBWorK received favorable comments, based in part on the fact that it is not tied to any particular book. It was emphasized that any system we adopt needs to be both easy to use and voluntary.

Alexander reported on a conversation with Dianna Armstrong concerning the Math 220 proficiency exam. Because of the tight schedules of incoming freshmen the weekend before classes start in the fall, there seems to be no chance to give a proficiency exam in Math 220 that lasts longer than one hour. Data on subsequent class performance of students who score close to the pass-fail cutoff on the proficiency exam indicate that the cutoff score is set at approximately the right level. The Committee decided to make no change in the Math 220 proficiency exam next fall.

The Committee revisited the issue of textbooks for Math 347. There was some sentiment for not approving any additional texts for the course, but simply continuing the existing policy of allowing instructors to present a case to the UAC for using a book of their choice when teaching the course. Others emphasized the importance of having a list of more than one approved text for the course. McCarthy mentioned that students who have completed CS 173 before taking Math 347 do noticeably better than average in the course. McCarthy also raised the possibility of creating a course, not to be required in any curriculum, whose purpose is to prepare students for Math 347. No conclusions were reached.

McCarthy reported that the director of the Math and CS program has raised the question of whether Math 418, which has undergone substantial changes in content in recent years,

is still an appropriate course for students in Math and CS. Math 418 is still listed as advanced linear algebra, a description that is no longer accurate. Math 418 is not required of Math and CS students, but appears on a list of courses from which the students must choose.

McCarthy suggested that the UAC rethink the purpose of the CS requirement for math majors. Once the purpose has been clarified, it will be easier to determine which CS courses are appropriate for our students.

Joe Miles, Secretary
UAC

Undergraduate Affairs Committee
May 3, 2005

Members present: McCarthy (acting chair), Duursma, Ford, Miles, Muncaster, Snapp, Wright

Members absent: Alexander, Pillay, Schupp, Stolarsky

The minutes of the April 26, 2005 meeting were approved.

The Committee recommended that the Edwards and Penney calculus text be used for Math 243 in the fall semester, with the understanding that full consideration will be given to alternate texts when the UAC resumes meeting in the fall.

The Committee decided to table until the fall semester its consideration of the computer science requirement for math majors.

Muncaster submitted for consideration a Math 490 Approval Proposal. The thrust of the proposal is that an instructor, before teaching a section of Math 490 (Topics in Mathematics), should inform the UAC in reasonable detail of the plans for the course. After considerable discussion of the issue of graduate credit in Math 490, the proposal was accepted with minor modifications. The proposal is included as an Appendix to these minutes.

McCarthy presented for consideration a job description of the position Director of Quantitative Reasoning Courses. Courses below the calculus level constitute an increasing fraction of the department's instructional load, and it would be desirable to increase the department's level of oversight and coordination of these courses. Models for accomplishing this task other than that envisioned in the proposed job description were suggested, and the Committee decided this was an issue appropriate for further consideration in the fall.

Joe Miles, Secretary
UAC

APPENDIX

Math 490 Approval Proposal (May 2005)

Faculty wishing to offer a section of Math 490, Topics in Mathematics, must obtain the approval of the Undergraduate Affairs Committee. A proposal should be submitted to the committee that includes:

- a) a syllabus (as detailed as possible, including choice of text, if appropriate).
- b) number of credit hours (1 to 4 hours).
- c) projected audience.
- d) justification for graduate students receiving graduate credit for the course, if desired.