

ACADEMIC COUNCIL
Meeting of September 21, 2010
McKenna Auditorium
3:30 p.m. – 5:30 p.m.

Members present: John Affleck-Graves, Panos Antsaklis, Robert Bernhard, M. Brian Blake, Seth Brown, Thomas Burish, Greg Crawford, Darren Davis, Nick Entrikin, William Evans, Stephen Fallon, Judy Fox, Mary Frandsen, Umesh Garg, John Gaski, Nasir Ghiaseddin, Stuart Greene, Dennis Jacobs, Rev. John Jenkins, C.S.C., A. Graham Lappin, Michael Lykoudis, Kelly Martin, Chris Maziar, John McGreevy, Nell Newton, William Nichols, Susan Ohmer, Hugh Page, Cathy Pieronek, Donald Pope-Davis, Joseph Powers, Ava Preacher, John Robinson, Jim Seida, Cheri Smith, Catherine Soler, Carolyn Woo

Members and Observers excused: Laura Carlson, Rev. John Coughlin, O.F.M., Megan Dillhoff, Dennis Doordan, Rev. Tom Doyle, C.S.C., Austin Holler, Lionel Jensen, Peter Kilpatrick, John LoSecco, Robert Mundy, Dale Nees, Mike Oliver, Greg Sterling, Ann Tenbrunsel, Julianne Turner, Cynthia Weber

Observers present: Kevin Barry, Harold Pace, Warren vonEschenbach

Guests: Steven Buechler, Edward Maginn (representing Greg Sterling), Mary Ann McDowell, Andrew Sommese

1. Welcome and opening prayer: Father Jenkins opened the meeting at 3:30 p.m., welcoming members, and invited Susan Ohmer to give the opening prayer.

2. Approval of minutes:

The minutes of the September 1, 2010 meeting were unanimously approved.

3. Proposal for PhD in Applied & Computational Mathematics and Statistics

Father Jenkins invited Prof. Panos Antsaklis, chair of the Advanced Studies Committee, to present the proposal for a doctoral program in Applied & Computational Mathematics and Statistics (ACMS).

The proposal was approved by the Graduate Council on September 9, 2010 and by the Advanced Studies Committee on September 15, 2010. On the recommendation of the Executive Committee of the Academic Council, the proposal is brought before the Council today. Prof. Antsaklis introduced Prof. Steven Buechler, chair of the ACMS department, to speak about the proposal.

Prof. Buechler said the proposal has been a central aspect of the mission of the new department from its conception; both research and educational goals of the department depend directly on the creation of a doctoral program. Graduate students constitute a significant part of research teams already, and training and mentoring students and junior colleagues are other ways of impacting society. This program aims at training students who have a deep understanding of the underlying

tools and can apply them to solve complex problems in an application area, often in interdisciplinary teams. Program graduates will find employment at universities, in research labs, in medical schools and in industry.

The combination of statistics and applied math in one program is unusual, but it reflects the direction of research in these fields and gives us a competitive advantage. Applied math models that are predictive of a disease need to be tested with statistical methods. Both statistics and applied math are becoming increasingly computational. Methods from computational mathematics are used in the statistical analysis of data arising from genomics. The two areas are coming much closer together; offering these subjects under one degree program gives us a notable advantage in research, in graduate education, in undergraduate education and in recruiting faculty. Students around the country can study math in an autonomous applied math program, or within some math departments. Students who want a career in applied math research will find the program especially attractive because of the department-wide applied math practice and the ability to start work as members of research groups early in their studies.

Like all doctoral programs, this program contains course work, exams, thesis research, and a formal defense. The coursework is structured to be as flexible as possible, so that students can augment course studies with courses in other departments and seminar work early in their studies, even in the first year. A communications requirement is included, a seminar class that will train students to give presentations, to write, and to communicate orally. It is critical for researchers who are going into interdisciplinary work to have very strong communication skills. They have to know how to communicate to people who are not as technically savvy with the tools that they are applying. This will be extremely important as they mature in research and look for jobs.

There are faculty in other departments skilled in these research areas and it is expected there will be numerous concurrent appointments. Concurrent faculty members are able to mentor graduate students in our department, with the approval of the department chair. Currently, potential concurrent faculty are being invited through the normal application process.

The current faculty have been advising students in math for some time. There are eleven students, currently enrolled through mathematics, who have agreed to transfer to the new program if it is approved. Students working in statistics will be recruited once the statistics faculty have been recruited. Because this doctorate is so critical to the department, a draft of this proposal had been included as an appendix to the department proposal that the Academic Council approved last March, 2010. Now that the department exists, we are submitting this much more detailed proposal.

Father Jenkins invited discussion of the proposal.

Prof. Graham Lappin noted the interdisciplinary nature of the program has been emphasized in the proposal. He quoted the document, "students are encouraged to take courses outside of the department" but observed that the statement did not indicate a requirement that students do so.

He viewed this as a lack of a requirement for students to build up expertise in other areas of study such as biology, genomics or social sciences. Prof. Lappin said he would prefer a stronger statement clearly delineating a requirement that some courses be taken outside of the department to prepare students. In response, Prof. Buechler said that a great deal of the details of the curriculum of students has been left to advisors and the advising relationship. The training of the students in computational math is more traditional in the first two years; later in their careers, they will start working in interdisciplinary groups. Given all this, flexibility was left for the advisors. Arguably, that is a deficiency in the program; nonetheless, it is the route taken by the department.

Prof. Sommese, ACMS, observed that the flexibility is a good feature. He noted that he has often worked with colleagues in other departments (such as Prof. Powers) which led then to his students taking courses with the colleague. Because of constant changes in disciplines, he noted that it is difficult to “put in writing the areas you want the students to learn.” That might inflict rigidity on the program. If faculty are working with colleagues in other departments, then the students have to learn that material and so they take the courses.

Prof. John Robinson, noting that he was not present for the discussion pertaining to the proposal for ACMS in 2010, observed that it is possible this particular proposal has had a somewhat unique unfolding and life span. Nonetheless, the chronology appears to be rushed relative to the graduate school guidelines which mandate a year of development for a proposed new program. He asked for clarity on the chronology of this proposal.

Prof. Edward Maginn, assistant dean of the Graduate School, representing the Dean, said that in his capacity as overseer of the creation of new programs, he has been working closely with Professors Buechler and Sommese over the past year. Contrary to appearances, this program has long been in development and is rigorously adhering to Graduate School methodology, prescriptions and timelines. Indeed, he said no program should be in development for more than a year, as the nature of recruiting is such that a longer time span slows recruitment down to a two to three year schedule, which is problematic for the program. He further noted that the proposal was unanimously approved by the Graduate School Council, and Dean Sterling is fully supportive of it.

Prof. Chris Maziar offered her strong support for the program and the proposal. She called it an “exceptionally well considered proposal” in which the financial implications had been carefully articulated. This program is greatly in demand by students, potential students and faculty collaborators.

Prof. Seth Brown, noting that the proposal establishes a single degree program for ACMS, asked if separate degree tracks for statistics and for computational math had been considered. With a single degree, will all students be required to have mastery of both fields? Prof. Buechler said there is no requirement that students master both areas of study. However, it is the nature of research in these areas that blended expertise will become more common. As designed, it is a much stronger degree. It was feared that if the tracks were separated, it would cause students to self-select into

separate areas. The best education is, of course, in both fields and in working with faculty in both areas. He agreed that it is unusual, but asserted that it is a strength of the proposal.

Prof. Brown asked for clarity: is the expectation that many or most students would take courses in both areas, but that there might be some who would concentrate heavily or exclusively on the statistical side or heavily or exclusively on the applied math side? Prof. Buechler agreed that this is a possibility.

Prof. Joe Powers asked if cross listing of courses is anticipated; Prof. Buechler said yes, as is already occurring.

As there was no further discussion, Prof. Antsaklis moved to approve the proposal; it was seconded. The proposal was approved unanimously and was accepted by Father Jenkins. Father Jenkins thanked Professors Antsaklis, Sommese and Buechler.

4. Proposal for MS in Global Health

Father Jenkins invited Prof. Antsaklis to present the proposal for a master's of science in Global Health.

Prof. Antsaklis briefly reviewed the history of the development of this proposal, which was originally submitted in Fall, 2009. In May, 2010, the Graduate Council provisionally approved the program, pending clarification of the governance structure. On September 9, 2010 the proposal was fully approved by the Graduate Council, and approved by the Advanced Studies committee on September 15, 2010. It is before the Council today on the recommendation of the Executive Committee of the Academic Council. A representative from Biological Sciences, and one of the authors of the proposal, Prof. Mary Ann McDowell, in attendance, was invited to speak on behalf of the proposal.

Prof. McDowell offered her thanks to the Council for reviewing the proposal and inviting her to speak. She noted that many colleagues in the room have provided beneficial advice through the process of drafting and revising this proposal, helping to make it a better proposal. She explained that the program is a culmination of three events:

1. The generation of the Eck Institute of Global Health: prior to Strategic Research Initiatives (SRI) program and the endowment into our Institute, we were really just a loose group of faculty with similar research interests. Now, we are able to come together to develop collaborative programs to aid global health, and also help the university.
2. The University of Notre Dame was invited to be a member of the Consortium of Universities on Global Health, and David Stevenson, the acting director of the Eck Institute, and Kathleen Taylor, operating director of the Eck Institute, are currently attending the Consortium's meeting, and thus apologize that they cannot be present today.

3. The innovative vision of Dean Crawford, College of Science, and his support for this program have been instrumental to the development of this proposed program.

The program is a professional level master's of science in Global Health. This is different from Public Health, which is not the subject of today's presentation. The curriculum which has been developed is science-based. The reasons for this are as follows: [1] Science is the area of expertise of Institute faculty. [2] Advice from members of the Consortium and from informal discussions with experts in non-governmental organizations has suggested that there is a lack of basic science knowledge in some of the NGOs. Thus, a gap exists which needs to be filled. We are very cognizant that global health is not merely science-centered. For instance, we have a measles vaccine which is very effective; yet measles continue to affect many children throughout the world, indicating that there are numerous social issues involved as well. However, at this point, on this campus, we have not developed enough expertise and collaboration to have a social sciences based global health program. However, we do hope, once this program is approved, that we will grow to incorporate social science, business, and law as we go forward.

Our main goal is to prepare students for a lifelong engagement in global health and the problems that individuals in these poor settings face in terms of getting adequate health care. We hope to train students in science; however, we expect we will get students from all areas who want more science training or people coming back for a second career.

Members were invited to make comments and ask questions.

Prof. Judy Fox, representing the Academic Affairs committee of the Faculty Senate, noted that the committee has looked over the proposal but did not have time to create recommendations. Some of the questions and concerns which were mentioned include the following:

1. The proposal focuses "a lot" on the possibility of the program becoming a profitable, money-making enterprise. The committee is concerned, first, because this does not seem to be a practical goal. Based on the budget, the program would become money-making with 25 students, which the committee feels is a high number to absorb into the program and a high number of students to place in meaningful summer placements and into an uncertain job market. Second, this program appears to be an ideal "mission fit" for ND and thus students would be encouraged to enter this program. So, it is troubling to urge students to incur the kind of costs it would take to enroll in this program and then enter jobs which are not, objectively, particularly lucrative. In light of this, the committee would hope the focus is not on money-making, but rather on developing methods of assisting students with costs. The committee briefly looked at the new Global Health program at Duke University, which is offering a large number of grants, etc, to help students to fund the program.
2. The issue of timing concerned the Faculty Senate Academic Affairs committee. The proposal suggests that recruitment of students will begin in the current semester. Yet, the program does

not appear to be “shovel ready.” At least two courses on the curriculum are not yet developed, the director, it is understood, will not arrive until later in this current semester, and there are numerous questions still, within the program, about the process of evaluating the field experiences of students. The committee was told that the pedagogy and methodology of the evaluation will be developed by the as yet not appointed director. The committee is a bit concerned that the program will be starting up, the curriculum will still be in development, and advertising materials will still be in development while at the same time students will be recruited, all in a two month period. The danger, for the committee, is that none of the tasks can be done as well as possible, the excellence expected of this program cannot be achieved, and the students recruited will be last minute choices because the program is “behind the eight ball.” Given these facts, the committee would strongly urge rethinking that schedule. Take time to get the endowment which is apparently needed to support the director and the students, and focus on a start-up of Fall, 2011.

Prof. McDowell addressed the first concern about whether the program is overly focused on profit-making. A close study of the budget indicates that the hope is to maintain the program on a tuition basis, not to make a profit. Because of the generosity of Dean Crawford’s office in supporting the salary of the director of the program for a period of time, it only appears that a profit will be made.

In terms of job placement for students, it is expected that many students will earn a terminal degree and seek employment with NGOs. Here, the average salary varies drastically (from \$40,000-\$80,000/year). However, an overseas placement garners tax benefits and other benefits like paid housing, education benefits for minor children and paid home leave. A simple salary quotation usually refers merely to the base salary. The actual salary is effectively higher. Employment with USAID also provides benefits above the base salary, such as assistance in paying off student loans. Prof. McDowell noted that low salaries are an issue for many liberal arts graduates.

Prof. McDowell addressed the concerns about timing of the proposal. She noted that the program has been in development for a long time; the proposal was first sent out for approval in Fall, 2009. In addition, the candidate who is being considered for director has been working in both domestic and international public health for 30 years. He has a strong vision for this program, with special concern for developing the field experience segment, an area in which he has much previous experience. The program will take on only six students to begin with. Relationships are already being developed with placement possibilities; the program is prepared in that direction.

Prof. Fox recommended removing the income generator comment, given Prof. McDowell’s explanation.

Prof. Powers asked for further details about the curriculum requirements. Prof. McDowell said the program requires 30 credits, with 13 core credit hours. The students will take about 10 courses, which include research projects. Students will be in the classroom for about 6 courses, 18 credit hours. In comparison to the two new programs at Duke and UCSF, all the programs are one year

programs and similar in design. The courses are indeed graduate courses, although some are cross-listed.

Dean Carolyn Woo presented a concern which she noted she had raised in Fall, 2009, when the proposal was first presented for approval. In examining the curriculum, it appears that global health does not have a well defined body of knowledge to be acquired. Dean Woo reviewed the focus of the 5 core courses (she noted that there are 5 not 6 core courses), describing them as “overview” or “research methods” or a “colloquium” or “research project.” None of these has a specific core focus on global health topics. If the definition of “core courses” is that they build the basis of the various knowledge bases, these core courses do not appear to provide that kind of knowledge. Dean Woo said that the electives represent a broad, intensive and comprehensive set of topics, but only three are required courses. Since the total classroom time required is 18 hours, and the total field work required is 12 credit hours, it is as though the students are engaged in a lot of experiential self-teaching. Is that the intended design? And how does it reveal the discipline basis for the field?

Prof. McDowell stated that the definition of global health is changing. Some think global health and public health are similar; Prof. McDowell said the program intends to make a distinction between them. Public health is strongly statistics-based and focused on prevention within a specific community. International health is focused on health issues specific to a country other than one’s own. A widely accepted definition of global health is working toward ideas and solutions to global health concerns that are not limited to a single region or country. In the curriculum of the proposed program, there are two “global challenge” courses and the global health research methods course. The idea behind these courses is to bring the students together to consider the global themes behind health issues. Each student will come to the program with a different expertise and with a specific focus; the electives are designed to support these specialties. There is no doubt that global health is a huge field, encompassing social sciences, nutrition, infectious disease, peace studies, law, etc. At this juncture, the program is not prepared to train students in such a range of areas. A dream is that ND would offer a MS in global health and human development; this would be a big program, enabling students to focus closely in different areas. However, the university is not there yet; there are not the companion disciplines to support this kind of idea as yet. The core curriculum is designed to provide the overview of global health, and expertise will come from electives and field experience.

Ms. Cheri Smith, librarian, noted that library resources were mentioned as adequate “on one page, in one sentence” of the proposal. She asked if input on resources to support the new program had been obtained from the subject librarian, Mr. Parker Ladwig. Prof. McDowell said the library resources which support courses that are currently offered are adequate and therefore should be adequate for the new program in combination with interlibrary loans. Prof. McDowell could not confirm that Mr. Ladwig had been consulted. Ms. Smith said that the current resources are not considered adequate by the library staff, and she noted that inter-library loan requires financial support as well. She urged that this aspect of the proposal be further investigated.

Prof. Seth Brown, addressing the Executive Committee, made a plea that more lead time be provided on proposals to be approved. Gathering feedback from colleagues was extremely rushed; more lead time and intellectual space for appropriate deliberation would be appreciated.

Addressing the proposal, Prof. Brown raised two points of concern: [1] The proposal has a multidisciplinary focus with a particularly strong biological focus. He noted, however, that there are significant biological resources at ND which are not being drawn upon, based on the evidence of the curriculum. [2] The proposal demonstrates a lack of involvement with the social sciences which is even more concerning. The social sciences form an integral part of the global health issues, as Prof. McDowell's presentation acknowledges. Excluding the social sciences at the beginning of this new program runs the risk of creating a program that simply cannot address the issues it needs to in order to be a successful program. Prof. Brown invited Dean McGreevy to comment on the position of the College of Arts and Letters. If ND does not have the expertise in social sciences, perhaps it might be better to wait until that time to launch the program rather than to bring students in under false premises.

Prof. McDowell explained that, regarding the expertise in social sciences, the program drafters have consulted with Father Dowd (Ford Family Program of the Kellogg Institute) to discuss possible future collaborations. Father Dowd is very supportive of the program and has offered to take on some of the students for summer internships. Thus, there are ongoing plans and projects between the two entities. However, there is concern that if this program is delayed, it will be less competitive. When development began for this program, there were two other programs extant; now there are three. There is an increased recognition of the need for professional degree programs. In addition, Prof. McDowell expressed significant confidence in the candidate identified for the director's position who has a strong basis in public health and expertise in the social sciences aspect of global health. He has provided the planners with a short vision and an expanded vision of where he thinks the program can go. He has already initiated conversations with the Kellogg Institute about future plans and is fully planning on expanding the program.

Prof. McDowell said that a delay in moving forward with the proposal may well mean that ND falls behind competitively and that the current need will go unmet.

Dean Crawford, College of Science, said that the College has been working with Father Dowd, and he and Prof. McDowell have each made trips to Uganda, where the Ford Family Program is at work, to determine in what ways the proposed program can intersect with the ongoing projects of that program. So it seems clear that the social sciences element will come into the proposed program in the future. He stressed that because of competing programs, it is important to begin moving forward on ND's program in order to stay competitive. He noted that the program developers have consulted with alumni who are leaders in the field, such as Dr. Thomas Quinn at Johns Hopkins University and Dr. Scott, Dean of the medical school at George Washington University. It was the recommendation of these leaders in global health that a science-based focus was a beneficial niche

for ND, particularly when married to the Eck Institute for Global Health and with the research focus and the strategic investment at ND.

Prof. Robinson said that global health is an ideologically fraught area at world historic levels. We have witnessed the struggle between market models for addressing horrible health issues in the very poor parts of the world versus alternative models. This is not simply a question of the “good guys versus the bad” but instead a complex and serious set of questions. Further, it is not just the social sciences that might have a say here, but other disciplines as well, such as the Human Rights Institute (Law School). Would it be feasible and beneficial if an advisory board that was deliberately non-biological were put together to speak to different sides of the debate to bridge the gap between where the program is now and where it is hoped to be in 3-5 years?

Prof. McDowell said that this seems to be “a great idea” but one which has yet to be addressed with the Graduate Council. However there is a line in the budget for funding of an advisory group; the planners had considered not just an internal board but also of inviting external experts to provide guidance. She said the planners agree “wholeheartedly” with this concept.

Prof. Brian Blake said that he was delighted at the inclusion of field experiences in developing countries, in part because the College of Engineering currently has a number of engineering projects in developing countries. It appears that this could be a place of interaction between Engineering and the global health program. He asked for further information about this aspect of the program, and wondered if the budget for field experiences is “modest.”

Prof. McDowell reviewed the program’s budget commitments and noted that the program plans to begin with only six students, which in part explains the budget figure of \$45,000. It is anticipated that there will be resource sharing in the field experiences. She elaborated on the kinds of field experiences planned, noting that many of the faculty already have research studies in place internationally, where students can immediately begin to work. The program plans to draw on other on-campus faculty with international research studies, as well. The Eck Institute is cultivating relationships with other organizations, which will open up some field opportunities. And NGOs, such as Catholic Relief Services and Family Health International, provide more service-oriented opportunities, so the operating director will be working on establishing relationships with these sorts of organizations. Placing our students with these programs will be easier if we are willing to pay the brunt of the costs.

Prof. Brown restated his concern about the lack of a strong presence in the social sciences; he noted that an excellent director is not a substitute for having students take courses in the social science fields. He noted that it has been asserted that ND does not have the social science expertise currently to support a global health program; he asked if there are future plans to develop this particular expertise.

Prof. McDowell said that the Eck Institute is, in general, a proponent of hiring more faculty with a global health expertise across the campus, especially in the social sciences. There also are ongoing conversations with the Kellogg Institute on this subject. Prof. McDowell stressed that there are individuals in the social sciences on campus who do excellent work in global health. At this time, relationships between these individuals and the Eck Institute have not been solidified; faculty are understandably hesitant about taking on increased teaching loads. It is hoped that these relationships will develop as the program goes forward. She noted that the Ford Program is developing a minor in human development studies, which will open up some possible course offerings that the global health masters can utilize.

Prof. Brown said his concern arose in part by the job listings sample included in the proposal—many of the positions available involve translating between the scientific and non-scientific ends. He expressed concern for student needs if the nebulous plans to incorporate the social sciences into the program take years to bring to concrete fruition.

Prof. McDowell spoke briefly about the diverse applications of their studies made by the students after graduation, from NGOs through medical school. In this one year program, many of the hard-science based courses include discussion of the social science aspects of the health questions being examined. In addition, the two core courses will provide social science perspective. If a particular student needs a specific expertise, efforts will be made to obtain that for him/her.

Dean McGreevy offered some perspective from the College of Arts and Letters. In response to the question about whether ND run a credible global health program with a primary, even fundamental science base with, on the margins for the moment, a social science/law/business base, he assessed the proposal as “smart” and “open to developments in the future.” He noted that the proposal models itself on Duke and UCSF, which have curricula similar to the one outlined here. Future developments might include examples such as the hiring of two economists in the past two years with interest in global health, or the ongoing search for a director of the Ford Family program with global foci. Thus, already there have been three economists and a political scientist added to the faculty, with clear potential for more faculty hires down the road. Soon, there will be a robust cluster of social scientists with strong interest in development issues. And, finally, the dean noted that there is clear evidence of enthusiasm and interest being expressed across the campus. The dean summarized the proposal as focused on “excellent where it is now outlined” and “open to potential excellence in the future” and “credible” because it is modeled on programs that already exist and are flourishing.

Prof. Bill Evans, noting that he is always in favor of hiring more economists, agreed that the Ford Family program is trying to expand its range of topics and researchers involved. Health is obviously important, so it is anticipated that an upcoming hire will include a health interest, and a recent junior hire is doing work on water and sanitation—all evidence that there is “getting to be a core” of faculty with health interests. It is clear that right now in the social sciences, we do not have the ability to support this. However, there are ongoing discussions between the Eck Institute and the

Ford Family program about increasing the linkages between the Institute and the college. There are hopes in the future. He cautioned that if ND waits for a critical mass of social scientists, it will be too late, given the realities of growing a discipline. He assessed that the commitment to social sciences is genuine in the proposal, and that indicators across the campus suggest that the future will be more propitious for strengthening the social science aspect of the program.

Prof. Evans also noted that a minor in human development has begun in the Ford Family program; the first class has been entered, with oversubscription from the undergraduates. It bodes well to being a big success.

Dean McGreevy added that if any faculty felt that the proposed master of science in global health was going to be so restricted in its scientific orientation that there would not be open to what members have identified as genuine intellectual issues in how we think about global health, then he would vote against approving it. However, thus far the planners of the program are eager to see that kind of collaboration—they have been great collaborators with the Ford Family program and the work they have done in Uganda, for instance. The present lack of strength—although there is some strength—in that area is not enough to delay the program because, as has been indicated, there are real benefits to getting something moving now, especially at the pilot level of six students in the first year.

Prof. Powers asked about the numbering of the proposed courses, as a means of ascertaining the level of courses being proposed. He offered the stipulation that no courses for the masters degree be listed at a level lower than 50000. Prof. McDowell accepted that stipulation, noting, however, that if a course which is needed by a student with an interest in a certain expertise were offered in another department at a lower level, that student be able to take such a course for credit. Many of the courses listed at 40000 in the curriculum are already cross listed and taught at the graduate level.

Prof. Entrikin, noting that the discussion has been dominated by a widespread concern for the role to be played by the social sciences in the proposed program (and he indicated, with others, that the proposal states a genuine interest in incorporating the social sciences into its curriculum), asked about the potential problem of a lack of a medical school—as is found at competing programs at Duke and Arizona—in the potential success of the program. Will such a lack impede the program's success?

Prof. McDowell said that both of the programs mentioned are already oversubscribed; there is a plethora of applicants with interest in this topic, which is why ND should proceed ahead while the interest is so strong and the competition still limited. In addition, she noted that while ND does not have a medical school, it does have a strong and growing connection with Indiana University medical school, here in South Bend and with the Academic Model Providing Access to Health Care (AMPATH), the IU school of medicine program in Kenya; both of these programs have expressed an interest in placing students in internships. In addition, alumni who are physicians, such as Dr.

Thomas Quinn at Johns Hopkins, have indicated a willingness to place students in field experiences with a medical angle. In the Eck Institute, this issue is regularly discussed; the lack of a medical school necessitates resourceful planning to take advantage of all external connections that are available.

In addition, Prof. McDowell stressed that the curriculum is basic science-focused rather than clinical which represents a niche ND can fill. In response to a follow-up question, she said there is evidence of a student demand for that niche. The pre-professional office reports that 20% of ND students do a post-baccalaureate program; they are eager for programs which offer specific focus, such as global health. In addition, evidence indicates that of the students enrolled in the UCSF program for global health, many are international and many are current medical school students who have decided they would like a more global health expertise than can be provided by a typical medical school curriculum, where, for instance, “tropical diseases” might be covered in a one week lecture. Also, the US government has recently increased support of global health issues, which is encouraging to students to pursue that kind of expertise. UCSF is offering an undergraduate major in global health. As the US becomes increasingly internationally focused, there is an increased need and students are seeking it.

Prof. Antsaklis offered his support of the proposal, noting that it is well put together and well thought out throughout. With proper nurturing and support, it can achieve the excellence we expect from any new program here at ND. The commitment to field experience is particularly welcome; the Advanced Studies committee noted the substantive design of this aspect—the field experience will not be “touristic” but rather “meaningful.” For all these reasons, Prof. Antsaklis offered his support of the proposal.

Dean Crawford added that public health programs around the country are consistently interdisciplinary, but they offer tracks for students. Thus, the proposed program is offering a basic science “track;” the program will expand with other tracks as new hires are made. In addition, he mentioned that the deans of the colleges have already established a strong track record for collaboration across the colleges and assured members that this collaboration will work to support the new program, to welcome new faculty from all disciplines, and to integrate them into the program.

Dean McGreevy asked Dean Crawford to speak about the level of significance to the applicant pool of the absence of a medical school. Dean Crawford said that the mission fit for ND with this program is “so great” that it supersedes that lack; the basic science has legitimately been identified as a niche the ND can fill; and, finally, global health is one of the greatest strengths of the ND curriculum even without a medical school.

Dean Woo asked Dean Crawford to identify where the science element is to be found in the curriculum; she noted that the core courses are not strongly science-based. He replied that the fundamental science will be taken in elective courses, where students will custom design their

individual science tracks in compliment to their field experiences. Dean Woo asked if 9 credit hours is sufficient for a basic science niche program. Dean Crawford said “absolutely;” he also noted that the National Science Foundation has called for professional masters programs to be terminal degrees. Nine (9) credit hours are reasonable, and more than enough to ground the research the students will be doing in the various internships. Prof. McDowell added that the incoming students will be Bachelor of Science students with a science background and core competencies in various sciences, who will be able to take upper level science courses.

As there were no further comments, a motion was made and seconded to approve the proposal. The proposal was approved with 2 nay votes and 6 abstentions. Father Jenkins accepted the proposal and thanked all who had prepared and presented the proposal.

There was no new business, and members adjourned to subcommittee meetings.