

Internationalization in the Professional Schools of Michigan State University

Michigan State University has a long tradition of educating both undergraduate and graduate students in the various professional schools to live and work in a global environment. MSU's professional schools have embraced the notion that graduates must have cross-cultural knowledge, awareness and expertise. These schools are all engaged in teaching, research and outreach that are international in scope and impact. In a very real sense, internationalization in the professional schools has been driven by a continuously changing world environment where there is an increase demand for globally trained professionals. For example, ACE's "Comprehensive Policy on International Education" calls for efforts to significantly expand the international knowledge of faculty and graduate students in professional and technical fields such as business, education, the resolution and information technology." (ACE, 2002, p.15). It is difficult to imagine how graduates from the professional Colleges such as Business, Engineering, Education and the Medical Colleges cannot have a global perspective. This review summarizes the various activities of the professional schools at Michigan State University with respect to a wide variety of initiatives that are internationalization.

Specifically, all the professional schools reviewed have a stated global mission. Beyond the stated global mission at the undergraduate level, the Broad College has a required international business course requirement. The College of Education has a required course (TE250) for all students in the teacher preparation program. The College of Engineering draws its faculty and graduate students from around the world, their research is presented in international conferences and journals, and their graduates are taking their place in an engineering profession that is unparalleled in the way that planning, design and manufacturing of engineered products now functions as a global enterprise. The College of Nursing reflects an understanding of global and cultural competence in the undergraduate nursing student's education. The College of Human Medicine in the MD Medical Scholars Program has an 80 percent study abroad participant rate. Beyond explicit international content within the various professional schools all these programs offer a vast array of study abroad opportunities. Section I summarizes the level of internationalization that occurs in the curriculum across the professional schools.

Both the College of Veterinary Medicine and the Broad College of Business (via MSU-CIBER) have implemented online international education. Section II highlights these activities. Section III describes several instances where professional schools have collaborated with other units on campus with respect to internationalization. Section IV briefly summarized the international research and outreach that occurs in the professional schools.

I. Internationalization, Students and the Curriculum in the Professional Schools

The Broad College of Business

The Broad School's mission in all programs is to develop leaders that have the skills to excel in a global, multicultural marketplace. The Broad School excels in numerous aspects to promote this global vision. The Broad College is home to the MSU-CIBER and is the new home of the Academy of International Business. With a global vision in mind, internationalization is reflected in all of our academic programs. To illustrate:

Undergraduate Programs

Internationalization is pervasive through out the undergraduate curriculum.

1. The undergraduate business core has an international business course requirement. Taking either MSC 310 or EC 340 fulfills this requirement.

EC 340 Survey of International Economics, or
MSC 310 International and Comparative Dimensions of Business

2. Beyond the core international requirement, several departments offer discipline specific courses; among these are: FI451 (International Financial Management), GBL 460 (International Law and Business) and MSC 415 (International Marketing Management)
3. As of January 2004, the Broad College also offers an International Specialization to address the growing emphasis on globalization. The specialization in International Business allows students to gain an international perspective in business. A wide range of international business and economics courses are available to give students a broad knowledge of international business gleaned from Finance, Management, Marketing, Business Law, and Economics. The language and study abroad requirements provide students' with an appreciation of other cultures and diversity in the workplace. Study abroad also prepares students to better function in the global marketplace. The International Business Specialization overlays the major field and enhances students' knowledge of International Business and employment prospects after graduation.

Graduate Programs:

The Full-Time MBA program also has an international business core requirement.

1. This requirement is fulfilled by taking one of the following international courses:

ACC	844	Management Accounting in Global Enterprise
FI	860	International Financial Management
MBA	841	International, Comparative, and Cross-Cultural Business
MSC	862	Developing Global Markets
MGT	804	International Management
MSC	860	International Business
MSC	862	Developing Global Markets

2. The Full-Time MBA program also offers an International Business Secondary Concentration. The concentration in International Business provides students with an opportunity to further explore specific international topics that were introduced in the first year of the MBA program. A student may choose courses that further their understanding in a concentration such as finance or marketing or they may choose a variety of courses to broaden their overall knowledge of global issues. An awareness of these issues is critical because international experience is no longer an advantage, but is now a requirement for managerial success.

Study Abroad

Study Abroad initiatives fall under two main areas, co-sponsored programs and faculty lead. For the 2002-2003 academic year 1,864 MSU students participated in Study Abroad Programs. Of this total, 373 were business students (275 undergraduate and 98 graduate) who participated in 23 business programs. These include semester programs in Thailand, Mexico, Finland, Ecuador, Hungary, England, China, Italy, France, Norway, Turkey, Australia, Germany and Austria. In addition to the above, the Broad College of Business has summer programs in Norway, Europe, India, England and Mexico.

The College of Education

Established in 1984 and influenced by national and university level efforts to internationalize higher education, the Office of International Studies in Education promotes an international dimension in all aspects of College of Education research, teaching, and service. In seeking a comparative understanding of educational policies, institutions and practices, the goal is to find ways to enhance the learning of children, teachers, and other adults in the United States while contributing to the worldwide effort of educators to meet the economic, environmental, social, cultural and political challenges of our time. Efforts to advance this goal can be grouped in three areas as follows:

- International research to improve education in the U.S. and other countries
- Collaboration with educators and institutions in other countries to create educational conditions necessary to sustainable development
- Efforts to help U.S. educators become more internationally oriented

The efforts of the College of Education have achieved national recognition. MSU won the 2004 Goldman Sachs Higher Education Prize for Excellence in International Education. In addition to the honor, the prize includes \$25,000 for the university. There are five Goldman Sachs prizes in international education each year, but only one goes to a university or college. The higher education award which MSU received is for a "higher education institution that shows exceptional commitment to promoting K-16 international knowledge and skills through its teacher preparation program or through ongoing partnerships with local schools to introduce international content." This award was reported in Education Week, the national newsweekly of record for K-12 education, making the third time the college's international work has been featured in a major way in this publication since 2001.

Curriculum and students:

Teacher Education Department: Special attention has been given to TE 250, Human Diversity, Power, and Opportunity in Social Institutions. TE 250 is an introductory course required of all students in the teacher preparation program and offered to students throughout the university as a service course. The serves to reinforce the course's efforts to deal with race, ethnicity, gender, disability, socio-economic class and their impact on

Courses which are primarily international in content are also offered at both master's and PhD levels in the Department of Teacher Education. These courses fulfill distribution requirements for these degrees. At the master's level, one course is TE 815, Comparative Analysis of Educational Practice, which focuses on recent classroom level research in other countries with important implications for the practicing U.S. teachers who take this course. TE 816, Education in Transition, is also primarily international in content and recently has focused on the relationship between education and democracy as it evolves in countries around the world. This course is of particular value to teachers in Michigan who are required to teach about core democratic values. At the PhD level TE 923, Comparative Perspectives on Teaching, Curriculum, and Teacher Education is taught. It is one of nine selective courses from which TE PhD students must choose three.

Department of Educational Administration, Department of Counseling, Educational Psychology, and Special Education: In these departments, the internationalization of student learning outcomes relies heavily on faculty members who have developed strong records of international scholarship. For example, EAD 813 on education, development and social change is the university's most comprehensive course at the master's level on this vital topic.

Kinesiology Department: Globalization is an important phenomenon in sport as in other areas. The course KIN 445, Socio-cultural Analysis of Physical Activity, has substantial international content.

College-wide efforts: Faculty members from various departments of the college have had opportunities to gain international experience through participation in the College's Graduate Studies in Education Overseas programs, which offers in-service,

certificates and master's degree programs at overseas locations, primarily for a clientele of teachers and administrators in American-International schools. Summer programs are offered at three centers in England, France and Thailand. Since 2002, 14 tenure-stream faculty (i.e. slightly more than 10% of the total college faculty) have joined with adjunct appointments in teaching courses abroad under this program.

Study abroad

The College currently has three summer study abroad programs and two pre-internship overseas teaching programs for our teacher preparation students that it offers on an annual or biennial basis. New offerings are continually being planned and introduced. The flagship study abroad program is the Pre-internship Teaching Program. Initially offered in South Africa, it provides students between their fourth and fifth year of the MSU teacher preparation program, after they have completed their bachelor's degree. To offer increased opportunities for study abroad participation, we have now developed a second site for this program in New South Wales, Australia, building on the college's earlier relationships in Australia and its successful undergraduate study abroad program in that country. A new development is a program in Russia offered for the first time in summer 2004. (This course focuses on the role of culture in development and learning, with a significant emphasis on interaction with Russian schools, classrooms and students. Each MSU student will learn about qualitative research methods in the context of learning about Russian education and society. Finally, the college currently offers undergraduate courses in education for study abroad in Australia and the Netherlands and is planning other future offerings in Malaysia and China.

The College of Engineering

Engineering differs in some respects from the colleges previously mentioned in the manner in which it is a “global” profession. While the Colleges of Business and Education offer courses aimed at understanding differences in how business or education practices differ across cultures, the “core” courses in engineering, such as statics, mechanics, thermodynamics and circuits, are essentially standardized across the world, and courses taken in one part of the world generally freely transfer to others. Similarly, our research faculty come from all parts of the globe, and on a day-to-day basis collaborates on their specific areas of research (on topics as diverse as nanotechnology, biotechnology, composite materials and signal processing) with colleagues across the globe. So an emerging area such as nanotechnology may be pursued by internationally-linked group of faculty and graduate students, yet these people view themselves as nanotechnology researchers, with the international component an almost incidental barrier.

Hence, our graduate programs, faculty and research are likely among the most internationally-engaged in the entire university, but in a manner so “incidental” that the participants may not view the international aspects as being notable on their own.

Special International Activities of Engineering Faculty

While Engineering has a large number of international faculty and graduate students, there are a few cases of faculty involved in activities that can be considered “international engagement” that goes beyond routine research collaboration and sabbatical visits, and involves using MSU expertise to enhance the quality of life and curricula outside the United States. Some of these are noted below:

- National University of Science and Technology, Pakistan. Over the past 15+ years, Dr. William Taylor of the Department of Civil and Environmental Engineering has worked with the government of Pakistan to assist in the founding and curricular development of the National University of Science and Technology (NUST) in Pakistan.
- Wayne Dyksen, Professor of Computer Science and Engineering, serves on the Advisory Board for the College of Information Technology of the United Arab Emirates University. Founded in 2000, the College offers seven innovative degree programs in information technology including computer science, information systems, software engineering, network engineering, and information security. The College Advisory Board reports directly to H. E. Sheikh Nahayan Mabarak Al Nahayan, Minister of Higher Education and Scientific Research and Chancellor of the United Arab Emirates University. The Board provides advice and counsel on all aspects of the College’s mission including curriculum, research, and senior level staffing.
- Anil Jain, Professor of Computer Science and Engineering, is a member of the Scientific Board, Advanced Computer Vision (ACV) GmbH, Vienna, Austria. This is an Austrian National Center of excellence with a 7-year duration. The Scientific Board consists of four international experts from U.K., Hungary, Slovenia and USA. It meets twice a year to evaluate the activities of ACV and make recommendations on new research directions. He is also a Research Partner with the Biosecure Network of Excellence. This is a EU funded project started in June 2004 to address research issues in biometrics for secure authentication. This project involves over 20 major European universities and companies. MSU is one of two U.S. partners.
- Through the INTEND project, Jack Lloyd and Tim Hinds of the Department of Mechanical Engineering teach a course that involves design teams that are formed of students at Michigan State and students in China and Mexico. Using videoconferencing facilities, they jointly collaborate on mechanical engineering design projects.
- The Richard Hong Endowment in the Department of Electrical and Computer Engineering provides the opportunity for students at the National Taiwan University to visit MSU and collaborate with faculty on their research.

- Dr. Erik Goodman of the Electrical and Computer Engineering Department is an Advisory Professor of the East China Normal University and the Shanghai Tongji University, as well as an Honorary Professor of Nanjing University.

Undergraduate Activities and Study Abroad

Perhaps the real challenge of internationalization in Engineering is how to prepare undergraduate who will increasingly be finding that routine engineering jobs are leaving the United States due to outsourcing, requiring that they be better prepared to combine engineering, innovation, business and global cultural skills in the less-routine work that is most likely to remain in the U.S. Our study abroad programs form the major component of these efforts.

The total number of engineering students studying abroad continues to grow despite declines in total enrollment, as noted in the table below.

Academic Year	Engineering Students Studying Abroad	Engineering Enrollment	Percent of Total Enrollment	Percent times Five (approx percent of graduates)
1998-99	77	3912	2.0	9.8
1999-00	81	3873	2.1	10.5
2000-01	96	4042	2.4	11.9
2001-02	89	4247	2.1	10.5
2002-03	97	3939	2.5	12.3
2003-04	106	3690	2.9	14.4

A key to attaining this level of participation has been our “Civil Engineering in Russia” program, which takes over 60 students (in several engineering majors) to study five weeks in Volgograd, Russia each summer. Other “signature” programs include one in Aachen, Germany for mechanical engineering, and one in Kaiserslautern, Germany for electrical and computer engineering. In addition, we send students to Surrey, England; Leuven, Belgium, and several schools in Australia. We are presently developing a new program in Cassino, Italy, and exploring several other potential sites.

The College of Nursing

The College of Nursing recognizes the importance of preparing knowledgeable, innovative and caring nurses to improve the health and health care of our global community. As a result, diversity, cultural competence and international experiences are interwoven throughout the College of Nursing curriculum, research, practice and service, and are reflected in our faculty and student activities.

Undergraduate programs

The College of Nursing offers nursing education that is high quality, accessible, innovative, and meets the needs of an increasingly diverse and global society. This includes preparing students to be globally and culturally competent through appropriate course content directed by leveled program objectives, and through study abroad opportunities that provide experiences in other cultures and health care settings. This is particularly evident at the undergraduate level where the curriculum is currently being revised and includes specific program objectives related to global and cultural competence. An understanding of global and cultural competence is considered to be a critical component of the undergraduate nursing student's education at MSU. It is included among the approved BSN graduate characteristics and outcome concepts, with leveled objectives for students to accomplish throughout their program of study. In the new curriculum Undergraduate students must:

- Level I: Describe theories and principles underlying the interaction between humans and their environments that affect health and wellness.
- Level II: Investigate the relevance of global, cultural and socioeconomic factors on health and wellness.
- Level III: Plan and implement care for persons and populations to address global, cultural and socioeconomic factors that influence health and wellness.
- Level IV: Consistently apply analysis of the interaction among global, cultural and socioeconomic factors to influence health and wellness.

Graduate Programs

Currently the College is focusing on revision of the undergraduate curriculum. However, incorporation of global and cultural competencies into the master's curriculum is expected to be completed by 2006.

The College of Nursing has offered an online graduate level course related to international health each spring since 2002 – NUR 891 International Health: Beyond the Textbook. The course attracts students from nursing and a number of other disciplines as well.

Study Abroad

All nursing students are strongly encouraged to participate in a study abroad program during their time at MSU. Students are informed that study abroad will not only contribute to their personal growth as individuals, but will expand their understanding and appreciation of the profession of nursing and health care, and the importance of

cultural competence in both their personal and professional lives. The College of Nursing offers three study abroad options to students:

1. Nursing and Health Care in Mexico. This 16-week Nursing and Health Care in Mexico program allows students to complete three required nursing courses during fall semester of their senior year in Guanajuato and Celaya, Mexico. The program focuses on nursing leadership and compares professional nursing in the U.S. and Mexico. While taking courses, students live with families and learn the language and culture, preparing them to better serve Hispanic populations upon graduation.
2. Nursing in London. The 4-week Nursing in London program is offered every summer and allows students to study two very different health care systems, as well as the history and roots of the nursing profession. This program can be also be taken by graduate nurses for CEUs, and is taught by a CON faculty who is one of four international researchers of Florence Nightingale and who is a liaison/counsel of the Florence Nightingale Museum.
3. Ghana: A Multidisciplinary Perspective was offered for the first time summer 2004 for six weeks and offered students from multiple disciplines the opportunity to learn about the historical, social, political, economic and cultural factors that have shaped and continue to shape Ghana's history and development. Students took either 4 credits of ISS, IAH or MC, and 2 credits of either NUR 491 Health Care in Ghana or FCE 490 Independent Study in Family and Child Ecology. Of the 11 students enrolled, 3 were nursing/prenursing students, and we anticipate interest in the program to increase after the first offering.

The College of Human Medicine

Increasingly, the College of Human Medicine is incorporating a global view in its programs. Medical students in the pre-clinical or clinical years who participate in an international health experience gain knowledge, skills and attitudes that will assist them in their work with patients from diverse backgrounds. Moreover, international health electives can affect recruitment for residency programs, and students' choices of careers in primary care and work with underserved populations.

Undergraduate Program:

Baccalaureate to M.D. Degree Program for Selected Highly Motivated and High Achieving Students.

The MD Medical Scholars Program encourages its 40 students to incorporate a study abroad component in their program of study. 80 percent of the MD Medical Scholars participate in a MSU study abroad program of their choice. Each year several students are selected to participate in the Medical Ethics and the History of Health Care

program in the United Kingdom, and in the summer of 2004, 3 MD Medical Scholars were selected to study Ethics and History of Development and Health Care in Costa Rica.

As juniors, MD Medical Scholars are required to participate in research. Some are selected for Minority International Research and Training Program fellowships and conduct their research at international sites.

Professional M.D. School

The College of Human Medicine seeks opportunities to engage students in international health. There are approximately 106 students in each class. The curriculum for Year 1 and year 2 students include studying basic biological sciences, learning interviewing skills, and engaging in problem based learning at the MSU campus. Year 3 and year 4 students are assigned to one of six community campuses where they participate in required and elective clinical rotations.

1. Leadership in Medicine for the Underserved. This is a new program of elective clinical courses offered to 3rd and 4th year medical students by the College of Human Medicine at its Saginaw community campus. In conjunction with Synergy Medical Education Alliance, students will spend up to two months in Belize participating in clinical experiences.
2. International Medicine Leadership and Planning Elective, HM 621. The goal of this elective course is to provide the medical student with experience in planning and preparing for an international medicine elective in an underserved international setting. Students will interact with various clinical, anthropologic, and laboratory professionals to prepare them for a month rotation in a developing country. During this four-week elective, the students will learn about:
 - Basic laboratory skills to use in diagnosing patients
 - Communication in relation to cultural issues
 - Public health planning – preliminary research project to be developed
 - Skills for planning an international medicine experience (leadership, supply procurement, fundraising, negotiation with government personnel)
3. International Medicine Elective MED 629. The goal of this elective clinical course is to provide the medical student with experience delivering medical care in an underserved international setting. Students will travel to Belize for the purpose of learning about international health needs and providing primary care to those attending public health clinics. Students will implement a public health project (prepared prior to this rotation in HM 621 and followed up during the fourth year rotation. Students will have the opportunity to compare the health systems and delivery settings within Belize (private, governmental, and mission) and understand the impact of cultural factors and economic conditions on the health of the people. During the four-week elective, students will participate in:

- Delivery of primary care with limited technologic support for underserved people
 - Communicating with sensitivity to cultural issues
 - Public health project implementation
 - Comparing and contrasting health care delivery systems intracountry and intercountry.
4. Senior International Medicine Elective MED 631. This course offers the 4th year medical student experience in providing leadership in the delivery of medical care in an underserved international setting. Students will travel to Belize to learn about international health needs and to provide primary care at public health clinics. Students will evaluate a research project developed during the third year elective, and serve as mentors to 3rd year students. During this four-week elective, students will participate in:
- Delivery of primary care with limited technologic support for underserved people
 - Communicating with sensitivity to cultural issues
 - Public health project evaluation
 - Orienting third year students to the learning environment.

Study Abroad for CHM Medical Students (Pre-Clinical Curriculum)

Medical students actively seek out international health experiences and engage in official MSU Office of Study Abroad programs and in programs offered by other organizations.

1. MSU CHM Cuba Study Abroad Program. For the past 2 years, 35 CHM 1st and 2nd year medical students, 16 in 2003, 19 in 2004 (included two 3rd year students from the Upper Peninsula community campus) have gone on the spring break study abroad program in Cuba to study the health care system. Organized by Medical Education in Cooperation with Cuba (MEDICC), and coordinated by a medical student and faculty advisor at CHM, students participate in seminars and site visits which provide a view of maternal-child and reproductive health, traditional and natural medicine, attention to seniors, care for the chronically ill, preventive care, health education, emergency care, and tropical medicine. This course is designed to give students an opportunity to discuss health care within the social, ethical, spiritual, and political/policy context.
2. The Latin Spanish Patient in the Context of Tropical Medicine. Two students attended this 4 week summer program in 2004 to learn medical Spanish, and to learn interviewing skills related to tropical diseases and chronic illness. This program was organized by the International Health Central American Institute in San Jose, Costa Rica. CHM is applying to make this an official MSU CHM Study Abroad program.

3. Summer Service Learning Trip in Peru. This program was developed by a 1st year CHM medical student and co-leader of the CHM International Health Projects student organization. Eight students and a CHM physician will spend 1 week in a rural province observing a team of medical professionals from Lima who operate on children with cleft lips and palates. Students will spend one week in Lima shadowing members of the medical team in their respective hospitals and clinics, study Spanish, volunteer with non-governmental organizations.
4. MSU Medical Ethics and the History of Health Care Study Abroad Program. Each year several CHM medical students are selected to participate in this 5 week program. Three 1st year students will attend in the summer of 2004.
5. MSU Ethics and History of Development and Health Care in Costa Rica study Abroad Program. CHM medical students also elect to attend this 8 week program in Costa Rica. One medical student will attend in the summer of 2004.

The College of Veterinary Medicine

The International outreach mission for the College of Veterinary Medicine (CVM) is to increase global awareness and cultural sensitivity, contribute to the resolution of global issues and to align our college with the goal of Michigan State University's goal of increased internationalism.

Goals for the CVM: For the CVM to be recognized as a leader in veterinary international programs.

- To better prepare students for employment and decision making regarding global issues related to human and animal health and disease (including foreign animal diseases and international agriculture and foreign trade)
- To promote international interactions (educational, research, service) directed toward the exchange or dissemination of knowledge and expertise for the global betterment of animal health and welfare
- To increase international perspective and understanding of global issues
- To increase satisfaction with education or employment
- To align CVM international programs with international goals of MSU

Undergraduate Program:

CVM aligns itself with the MSU Study Abroad Programs and specifically participates in a program with the College of Nursing that travels to Leon, Mexico. This is a seven week program which provides intensive language training with a focus on

medical terminology, followed by a special problems course (VM 290) that focuses on the history and evolution of veterinary medicine in Mexico.

Professional D.V.M. Program:

Several International experiences are available for Veterinary students and these are unique veterinary related opportunities.

Study Abroad Options

1. India - Faculty Coordinators: Approximately 25 students participate in a six week experience that provides a combination of clinical experience at Madras Veterinary College and exposure to wildlife health and management on an elephant reserve.
2. Europe - International Focal Problems Study Abroad: Participants in this program will visit European veterinary schools and corporate entities in the United Kingdom, Ireland and Germany to learn about veterinary educational systems and international agriculture and animal health care, including issues such as global bio-safety and foreign animal diseases.
3. Egypt Study Abroad – Faculty Coordinator: Students in this program have a unique opportunity to learn about the evolution of civilization in Egypt and the demands placed by these societies on the Egyptian land, water, fish and wildlife resources. Specifically, students will learn about water pollution, water borne diseases, existing water work infrastructure, effects on wildlife and fish populations, management of these populations, and how veterinary medicine in Egypt has evolved to deal with disease in domesticated animals.

Clerkship Options and Summer Research

1. Regulatory and Corporate Veterinary Medicine Elective Clerkship. This clerkship introduces students to veterinary public Practice opportunities, including international issues and organizations.
2. Special problems in pathology (Foreign Animal Diseases).
3. Summer Research experiences for CVM/MSU students are facilitated at the Veterinary School in Chaing Mai. Two students from Thailand spend 6 – 8 weeks at CVM/MSU as they acquire clinical veterinary experience.

Scholarships for Independent International Experiences

Each year approximately 21 veterinary students receive scholarship support for international veterinary experiences. These scholarships are awarded based on a competitive basis - an international panel of faculty judge written student submissions.

Graduate Study:

Graduate Students from abroad are present in most of the departments in CVM. These students are mentored by faculty and contribute to the international milieu of our college.

International Interns and Residents:

International Veterinary Graduates also constitute a portion of the positions available in the CVM Intern and Residency Programs. The department of Small Animal Clinical Sciences has an International Clinical Fellowship in Small Animal Surgery that is specifically reserved for an International Veterinary Graduate.

II. International Initiatives and Online Learning:

The College of Veterinary Medicine

International Food Law and Regulation online certificate program

This program is based in the College of Agriculture and Natural Resources, but includes CVM faculty and a number of courses related to international veterinary medicine, particularly:

- 1) The OIE: World Animal Health Organization ANR 490 section 736
Faculty Advisor: Dr. Theresa Bernardo
- 2) Codex Alimentarius (Food Safety) ANR 490 section 736
Faculty Advisor: Dr. Vince Hegarty

These are 3 credit lifelong learning courses that are open to faculty, students and alumni and can also be taken as part of the online Pro MS in Food Safety. They will be of particular interest to animal health professionals working in government and industry settings, as well as other animal health and food safety professionals who need to be aware of the global animal health situation and its relationship to trade in animals, animal products and foods of animal origin. They can also be taken as part of the online Pro MS in Food Safety.

The Broad College of Business

Created by the Center for International Business Education and Research at Michigan State University (MSU-CIBER), globalEDGE™ is a knowledge web-portal that connects international business professionals worldwide to a wealth of information, insights, and learning resources on global business activities. globalEDGE™ is your source for global business knowledge. The site offers:

- **Global Resources** - more than 5,000 online resources
- **Country Insights** - a wealth of information on all countries
- **Community** - an interactive forum for business professionals
- **Knowledge Room** - latest issues in international business
- **Academy** - extensive research and teaching resources
- **Diagnostic Tools** - decision-support tools for managers

III. Collaboration with the University and the Professional Schools:

The professional schools not only provided international aspects on a curricular based but also collaborate with other units at Michigan State University. For example:

1. Michigan State's Institute for International Health was established at MSU in 1987 to marshal university resources to address problems of world health by facilitating faculty and student research and academic interest in international health. It is unique because it houses an interdisciplinary specialization for undergraduates in health and humanities. Students take courses on cultural and social dimensions of health, science, technology, and biomedicine. MSU's graduate programs also offer Medical Anthropology and Medical Sociology specializations, with courses spread over multiple disciplines.
2. In the College of Educations, TE 250 is an introductory course required of all students in the teacher preparation program and offered to students throughout the university as a service course. The course staff has worked with several of MSU's area studies centers to prepare materials and case studies on themes related to the course, but with a focus on Africa, Asia, Latin America and Europe.
3. The College of Veterinary Medicine aligns itself with the MSU Study Abroad Programs and specifically participates in a program with the College of Nursing that travels to Leon, Mexico.

IV. International Research and Outreach in the Professional Schools

The Broad College of Business

1. **MSU-CIBER:** The Center for International Business Education and Research in The Eli Broad Graduate School of Management at Michigan State University (MSU-CIBER) was designated in 1990 as one of the pioneer National Resource

Centers in international business by the U.S. Department of Education. In this capacity, the mission of MSU-CIBER is to provide world-class education, research, and assistance to businesses on issues of importance to international trade and global competitiveness. Under the guidance of its Business Advisory Council, MSU-CIBER is dedicated to:

- Carry out research that generates best-practice knowledge on global business operations and global competitiveness.
 - Offer professional development and academic outreach programs on contemporary international business techniques, strategies, and methodologies.
 - Provide innovative, technology-driven dissemination of international business knowledge to business executives, public policy makers, scholars, and students.
 - The Michigan State University Center for International Business Education and Research (MSU-CIBER) Advisory Board will review the undergraduate specialization requirements annually and make any recommendations deemed appropriate to improve the specialization. The MSU-CIBER Advisory Board consists of both academics and business professionals in international business.
2. **The Academy of International Business (AIB):** AIB formally moved to Michigan State University on Jan. 1, 2004, and is co-located with the MSU-CIBER, in the Eli Broad Graduate School of Management. AIB is the world's leading association of scholars and specialists in the field of international business. The AIB, which currently has a membership of nearly 3,000 scholars and researchers from leading academic institutions and business leaders from 65 countries, was founded in 1959 and has been hosted at the College of Business Administration at the University of Hawaii in Honolulu since 1995.
 3. **Doctoral and Faculty Research in International Business:** The Broad College has established an outstanding reputation in the field of international business. Approximately 12 doctoral students are actively engaged in international research topics. Combining faculty expertise, MSU-CIBER support and the recent location of the Academy of International Business AIB at Broad, affords these doctoral students an exceptional academic experience.

The College of Education

1. The college is known throughout the world for its leadership in large-scale cross-national studies in education sponsored by the IEA consortium. These include the Third International Mathematics and Science Study (TIMSS) in which the college played a major national and international role under the direction of Professor Bill Schmidt. Reporting on TIMSS and its implications for U.S. education brought MSU to the attention of key education decision-makers throughout the country,

including the President, U.S. Secretary of Education, other high-level U.S. Department of Education officials and many governors and chief state school officers. More recently, the College has been selected by IEA to be one of two lead institutions for its first comprehensive cross-national research study of teacher preparation and induction in an estimated 20-30 countries.

2. More generally, the faculty's areas of international strength include the following:
 - TIMSS-type IEA multinational research on curricula, teaching and learning (especially mathematics, science and civic education)
 - Other international research and outreach to improve the teaching of mathematics and science
 - Technical assistance and applied research to support primary and secondary school improvement in developing countries
 - International research and development using innovative pedagogy and new forms of school-community relations to address issues of environmental education and community development
 - International research on teacher learning and professional development
 - International research and outreach to help educators understand and use technology and to make available needed on-line resources
 - International research on school choice, decentralization and educational finance
 - International research on higher education (especially in Africa)
3. One of the major functions of the Office of International Studies in Education is to continue to support faculty research through finding and tracking funding opportunities, helping to write proposals and prepare budgets, helping doctoral students find funding for international dissertations, and promoting our faculty on our website and at relevant venues throughout the world. This office also facilitates and supports professional relationships with institutions and researchers throughout the world, including but not limited to such important countries as Australia, China, Germany, Italy, Japan, Vietnam, Korea, Taiwan, India, Mexico, and Brazil.
4. The LATTICE project in the College of Education (which stands for Linking All Types of Teachers to International Cross-cultural Education) has for the last nine years offered professional development with international content to K-12 teachers in the Lansing area. It is an outreach partnership between Lansing area school districts and various units at MSU. It brings together about 25 MSU international students and 25 K-12 teachers once a month for intensive study and discussion of international and multicultural issues. A cumulative total of 450 individuals have now participated in LATTICE and 13 school districts have been involved. The project has received a number of awards and has been widely reported at professional meetings.

The College of Nursing

1. Nursing Continuing Education

The College of Nursing is exploring opportunities for marketing continuing education programs to nurses abroad. Current examples include development of a case management program for nurses in the United Kingdom and discussions with a university in China regarding improving education for their nursing students. We are also planning to develop a continuing education program to prepare U.S. nurses who plan to work abroad, for example those planning to participate in medical mission tours to developing countries.

2. Faculty Activities

A number of faculty are participating in international service activities, providing clinical care in developing countries as members of medical mission groups in Central America and Asia. Faculty have also taught courses in Mexico to students in the master's program offered by our partners at the University of Guanajuato School of Nursing and Obstetrics in Celaya. Faculty also provide consulting services to agencies conducting work in international health in developing countries.

College of Human Medicine

1. The IHH administers the Minority International Research and Training (MIRT) program, in which students are selected to conduct research at collaborating overseas institutions.
2. Undergraduate Students in the MD Medical Scholars Program receive MIRT fellowships to do research abroad. One student studied the prevalence of autism in Jamaica in the summer of 2003, and one student in summer 2004 is in Brazil conducting research.
3. Six CHM students received MIRT fellowships to conduct international research in 2002.
4. Philippines. For the summer of 2002, one student conducted research at the University of the Philippines on the "Detection of TT Virus in Multiple Transfused Patients."
5. Spain. One student went to the Autonomous University of Madrid and conducted research on the "Nitric Oxide Production in Cells from Pigs Suffering from the African Swine Fever". A second student also went to Madrid to do research on

“Similarities of Genetic Markers Exhibited by Human Neural Stem Cells and Embryonic Stem Cells.”

6. Brazil. Three CHM students went to the Faculty of Medicine of the State University of Sao Paulo. One conducted research on the “IgG Antibodies and their Relation to the Hemolytic Disease of Newborns.” A second student did her research on “Genetic Characterization of Cases of Severe Autoimmune Thrombocytopenia.” A third student conducted research on “Cardiovascular Risk Factors and Coronary Artery Disease: A Study of Fifty Cases in Botucatu.”