A Joint Degree in “International Infectious Disease Management & Biosecurity”, The first in North America.

By Margaret L. Khaitsa
Dept. Veterinary & Microbiological Sciences
College of Agriculture, Food Systems, and Natural Resources
North Dakota State University

USDA
Higher Education Challenge Grant
A Joint Degree in International Infectious Disease Management & Biosecurity

Dept. Veterinary & Microbiological Sciences
College of Agriculture, Food Systems, and Natural Resources
North Dakota State University (NDSU)

&

College of Veterinary Medicine, Animal Resources & Biosecurity
Makerere University, KAMPALA-UGANDA (Mak)
Global perspectives in agriculture

• are critical to the safety of our agricultural resources and require an international solution, yet very few opportunities exist for their study in the US.

• Graduates of this program will have a better understanding of international agricultural issues, making them much more viable in today’s competitive job market.

• This is a unique program within the NDUS & the US, and the first joint degree in North America.
Study abroad – summer course
2007, one month, 3 credits

International Animal Production, Disease Surveillance & Public Health

- Undergraduate students
- Graduate students
- Professional students/ internship
- 3 credits, in state tuition for all students
- Distance & Continuing Education (DCE)
- Non credit option/ internship
Course Objectives

- To expose course participants to tropical animal resources management & production systems (livestock & wild life) & food safety

- To acquire relevant skills in public health & Disease Surveillance especially in relation to international health (transboundary diseases) and zoonoses

- To foster interaction between university students from developed and developing nations - cultural exposure
2008 summer class
13 US & 6 MAK students
2008 summer class- 6 NDSU students with NDSU President then (J. Chapman)
NDSU President then & Delegation
Administrative support was high
A Joint Degree in International Infectious Disease Management & Biosecurity

Objectives

• Develop a joint Master of Science (MS) degree, Graduate Certificate (GC) & Undergraduate Certificate in *International Infectious Disease Management & Biosecurity (IDM)*.

Program Approval

• Approved 2011 at NDSU & Mak *(MS & GC)*
• 1st Cohort of 8 MS students (enrolled summer 2011-12)
The 1st cohort of MS-IDM students
Program Requirements

• The program requires completion of 30 credits with 13 credits of core courses offered jointly by both institutions.

• Students can enroll through NDSU or Mak; however, they have to spend at least one semester at the other institution and complete two practicum projects of 2 credits each, one at each institution.

• Experiential learning with cross pollination of teaching methods from both institutions; it is problem-based learning with a service-learning component.
## Core courses – Taught jointly

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Institution</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 674:* Epidemiology</td>
<td>3</td>
<td>NDSU</td>
<td>M. Khaitsa</td>
</tr>
<tr>
<td>MICR 721: Prevention and Control of Zoonoses &amp; Transboundary Infectious Diseases (ZTID)</td>
<td>3</td>
<td>MAK</td>
<td>F. Ejobi</td>
</tr>
<tr>
<td>MICR 722: International Health Systems, Policy and Biosecurity</td>
<td>2</td>
<td>NDSU</td>
<td>M. Khaitsa</td>
</tr>
<tr>
<td>MICR 723: International Animal Production, Disease Surveillance &amp; Public Health (Cornerstone course)</td>
<td>3</td>
<td>NDSU &amp; MAK</td>
<td>M. Khaitsa &amp; F. Ejobi</td>
</tr>
<tr>
<td>MPH 7204:* Social &amp; Behavioral Determinants of Health</td>
<td>2</td>
<td>MAK</td>
<td>J. Kiguli</td>
</tr>
</tbody>
</table>
Service Learning Example - 1st cohort

- June 3-29, 2012, 5 of 8 students participated in a community service project in Arizona to control Rocky Mountain spotted fever.
  - US Centers for Disease Control & Prevention (CDC)
  - CDC Foundation
  - San Carlos Department of Health
  - Virginia Tech Regional Vet College
  - NDSU
CDC - Environmental Health

- Spraying lawn
- Tick collar – 8 months
- Education of dog owners
• Africa-US Higher Education Initiative for development (11 partnerships)
• Capacity building (*institutional & Human*) in Integrated Management of Transboundary Animal Diseases and Zoonoses
• To fund 10 MS – IDM students from Uganda (**1st cohort-4; 2nd cohort-6**)
Challenges

• Joint admission
• Tuition
• Transfer of credits between institutions
• Registration & Records keeping
• Internships
Acknowledgements