Interdisciplinary Curricular Design Strategies

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A Developmental Retrospective

- Interdisciplinary structures have become commonplace but have evolved over 10 years
- Early years development was uneven; now expected and valued
- Creation/amalgamation into interdisciplinary schools/departments
- Some intellectual disciplines blend more naturally
  - Some faculty are more receptive (vs. resistors)
  - Some partnerships are more natural
Shared Principles

• Combine intellectual and curricular efforts to provide value added expertise to the student

• Reliance on university-wide Graduate Faculty model to facilitate program development and communication

• Faculty from different intellectual/disciplinary areas join to build solution based curricular outcomes

• Learning outcomes are substantively different from single discipline programs
Variegated Curricular Platforms

- Developed a host of organic interdisciplinary curricular approaches
- Developed a multitude of platforms for students to enter same intellectual space
- Designs vary by program, can evolve over time
- Students can enter into interdisciplinary programs based on depth of interest
Single PhD Degree with Multi-discipline Faculty

- Psychology faculty
- Molecular/Cellular faculty
- Educational Psychology faculty
- Biomedical Engineering faculty
- Life Sciences faculty
- Chemistry faculty
- Other faculty

- Representative Executive Committee runs program; engages faculty/students
- SOLS staff run administrative operations
MS in the Science of Health Care Delivery

- Similar to previous...design and curricular modules created by diverse faculty (e.g., Business, Law, Psychology, Nursing, Social Work)

- Unlike PhD where Executive Committee runs program, the multi-disciplinary structure is set, curriculum/modules are pre-set and program and administered by College of Health Solutions
Multiple degrees/Shared concentration

Complex Adaptive Systems Science Concentration

- PhD in Anthropology
- PhD in Applied Mathematics for the Life and Social Sciences
- PhD in Biology
- PhD in Environmental Social Science
- PhD in Sustainability
- Others
Example: Complex Adaptive Systems Science concentration

- All students must be accepted to “home” degree
- Students apply to CASS program graduate faculty for “admission” to the program
- Students are assigned a CASS advisor to guide them through program in addition to doctoral advisor—typically on doctoral committee
Fully interdisciplinary within schools

Example: School of Human Evolution and Social Change (redesigned from Department of Anthropology) now “hosts” with expanded Graduate Faculty:

- PhD in Applied Mathematics for the Life and Social Sciences
- PhD in Environmental Social Science
- PhD in Global Health
- PhD in Anthropology
  - and related master’s in each of these areas
Multiple degrees/Shared concentration

- PhD in Educational Technology
- PhD in Psychology
- PhD in Computer Science
- MFA in Dance; MFA Theatre
- 5 others

Optional Concentration courses in Digital Media

Taught by MAS faculty

PhD in Media Arts and Sciences

For students from PhDs choosing concentration, 1/3 of coursework in concentration
Multiple degrees/
Multiple concentrations

- MSTech in Technology Degree
- MS in Biology Degree
- Science, Technology and Ethics Concentration
- Biomedical and Health Ethics Concentration
- MA in Applied Ethics and the Professions Degree
- 2 core courses & Capstone
- Master of Public Policy (MPP) Degree
- MSE in Engineering Degree
- Leadership, Management and Ethics concentration
- Ethics and Emerging Technologies Concentration

Designed and taught by MS Tech faculty
Concurrent degrees: A variation

- Currently have 35 concurrent degrees
- Although not fully “interdisciplinary” they combine distinct intellectual areas.
- Examples:
  - JD/MBA
  - JD/PhD Psychology
  - MPP/MA in Sustainability
  - MPA/MS in Sustainability
  - MBA/MSE in Electrical Engineering
  - Master of Legal Studies/MS in Information Management
  - MS in Criminology and Criminal Justice/MPA
Summary

• We design platforms based on the intended outcomes of the program participants/faculty

• These platforms may evolve over time (e.g., a shared concentration may morph into a degree)

• Concentrations/relationships that do not “get legs” over time are closed or re-designed