Establishing an AG*IDEA Degree Program in Soil, Water, and Environmental Sciences

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AG*IDEA

Agriculture Interactive Distance Education Alliance (www.agidea.org)

Kenneth L. Esbenshade (Chair) AG*IDEA Board of Directors

Assoc. Dean / Director - Academic Programs College of Agriculture and Life Sciences NC State University





Great Plains IDEA

A Model for National Collaboration

- Established 1999
- 11 Institutions
- 8 degree programs -
- Family & Consumer Sciences



Great Plains IDEA Model

- **1.** Cooperating institutions develop curriculum
- 2. Curriculum approved at each participating institution
- 3. Student admitted at "home" institution
- 4. Student takes courses at "teaching" institution
- 5. Student awarded degree from "home" institution
- 6. Student pays "Common Price" for all courses

GREAT PLAINS IDEA

Funding Model



AG*IDEA - Brief History

➢ USDA–HECG (2006) → Southern region DE consortium

- Univ. of Georgia Jean Bertrand
- NC State Univ.
- Auburn Univ.

Jean Bertrand John Havlin William Hardy

Concurrently (2006) -> Mid-west DE consortium Univ. of Missouri Kansas State Univ.

Iowa State Univ.

Kansas State Univ. Univ. of Nebraska.

Formal discussions (2007-08) -> both groups -> with GP IDEA





Great Plains IDEA Structure





Current AG*IDEA Programs

- Agriculture Education
- Agriculture Mechanization
- Food Safety and Defense
- Grasslands Management
- Horticulture
- Swine Science

GR certificates UG/GR courses GR certificate GR certificate GR certificate





AG*IDEA Programs (in process)

- Agricultural Communications
- Agricultural and Environmental Law
- Animal Breeding
- Biobased Products and Bioenergy
- Poultry Science
- Soil, Water and Environmental Science (SWES)





Soil, Water, & Environmental Sciences Program Committee

John Havlin (Chair) **David Radcliffe** Wes Wood, Dennis Shannon Thomas Thompson Ed McCoy, Jerry Bigham Yuji Arai Mark Coyne Michael Mullen (Ag*IDEA Liaison)

Joelle Pitts (Ag*IDEA Coordinator)

NC State University Univ. of Georgia Auburn University Texas Tech Univ. Ohio State Univ. Clemson University Univ. of Kentucky

Kansas State Univ.





Soil, Water, & Environmental Sciences Learning Outcomes

- Knowledge

 demonstrate proficiency in scientific principles and illustrate interrelationships
- Skills
 apply basic technical principles to management of ecosystems
- Application

 define problems, retrieve and synthesize information, propose and evaluate potential solutions
- Professionalism

 appreciate transdisciplinary
 research and collaboration





SWES Curriculum

Core Courses	12-15 credits
Soil biology	3 credits
Soil chemistry	3 credits
Soil physics	3 credits
Pedology	3 credits
Hydrology	3 credits
Minimum of 4 co	re areas required
Statistics	3 credits
Seminar	1 credit





SWES Curriculum







SWES Curriculum

<u>Electives</u>

21-24 credits

Technology, analytics

Applied geostatistics Quantitative remote sensing Precision agriculture technology Experimental methods Instrumentation for hydrologic applications Watershed monitoring & assessment

Policy, law





Soil, Water, & Environmental Sciences M.S. Degree & Certificate

					CLEMSON
Fall	Soil Physics Pedology Hydrology	Soil Chemistry	Soil Physics	Soil Chemistry	Soil Chemistry
Spring	Soil Biology Pedology	Soil Physics Soil Chemistry		Soil Biology	





Soil, Water, & Environmental Sciences Learning Assessment

- performance in body of coursework, especially in the core subjects
- valuation of seminars, papers, abstracts, and other products of knowledge synthesis
- synthesis paper on contemporary problem of interest
- successful completion of oral exam
 - pass fundamental soil science exam





Soil, Water, & Environmental Sciences Projected Enrollments and Revenue

Year	\$/CR	Projected Enrollment*	Revenue	
			Total	AG*IDEA (12.5%)
1	445	20	\$80,100	\$10,013
2	445	45	\$180,225	\$22,528
3	445	75	\$300,375	\$37,547
Total			\$560,700	\$70,088





AG*IDEA Degree Program Soil, Water, and Environmental Sciences

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www.agidea.org

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