

**Characteristics of Texas Public Doctoral Programs<sup>1</sup>**  
**Doctor of Philosophy in Agriculture**  
**West Texas A&M University**

<b>Measure</b>	<b>Operational Definition</b>			<b>Reporting Source</b>
Number of Degrees Per Year	For each of the three most recent years, average of the number of degrees awarded per academic year			Coordinating Board
	2008-2009: 2	2007-2008: 3	2006-2007: 2	
Graduation Rates	For each of the three most recent years, average of the percent of first-year doctoral students <sup>2</sup> who graduated within ten years			Coordinating Board
	100 %. The program is less than ten years old, so all students who have graduated, graduated in fewer than 10 years.			
Average Time to Degree	For each of the most recent three years, average of graduates' time to degree <sup>3</sup>			Coordinating Board
	2008-2009: 5 yr	2007-2008: 4.13 yr	2006-2007: 3.7 yr	
Employment Profile (in field within one year of graduation)	For each of the three most recent years, the number and percent of graduates by year employed, those still seeking employment, and unknown			Institution
	100 % of graduates are employed. One is deceased but was employed.			
Admissions Criteria	Description of admission factors			Institution
	See program requirements attached to the end of the document			

<sup>1</sup> Programs included only if in existence three or more years. Program is defined at the 8-digit CIP code level.

<sup>2</sup> First-year doctoral students: Those students who have matriculated as doctoral students with doctoral degree objective.

<sup>3</sup> For each academic year, the time to degree is defined as beginning the year students matriculated with a doctoral degree objective until the year they graduated.

Measure	Operational Definition			Reporting Source
Percentage Full-time Students	FTS <sup>4</sup> /number students enrolled (headcount) for last three fall semesters			Institution
	For WTAMU a full-time graduate student load is 9 SCH			
	2006	2007	2008	
	6/17 = 0.36	7/14 = 0.50	7/15 = 0.47	
Average Institutional Financial Support Provided	For those receiving financial support, the average monetary institutional support provided per full-time graduate student for the prior year from assistantships, scholarships, stipends, grants, and fellowships (does not include tuition or benefits)			Institution
	Stipend (1/2 FTE) = \$19,000 per year either as teaching assistants or research assistants			
	Students working as research associates make more but university regulations require they not be full-time students			
Percentage Full-time Students with Institutional Financial Support	In the prior year, the number of FTS with at least \$1000 of annual support/the number of FTS			Institution
	100 %. The requirement of the program is that all students, regardless of FTE status, have an identified advisor before admission to the program and all full-time students must be provided a stipend.			
Number of Core Faculty <sup>5</sup>	Number of core faculty in the prior year			Institution
	2008-2009 Core Faculty = 13 Agricultural Sciences and 1 Life, Earth, and Environmental Science = 14			
Student-Core Faculty Ratio	For each of the three most recent years, average of full-time student equivalent (FTSE)/average of full-time faculty equivalent (FTFE) of core faculty			Institution
	2006-2007	2007-2008	2008-2009	
	6/16 = 0.38	7/15 = 0.47	7/14 = 0.50	

<sup>4</sup> Definition of Full Time Student (FTS) is institutional by program.

<sup>5</sup> Core Faculty: Full-time tenured and tenure-track faculty who teach 50 percent or more in the doctoral program or other individuals integral to the doctoral program who can direct dissertation research.

Measure	Operational Definition				Reporting Source
Core Faculty Publications	For each of the three most recent years, average of the number of discipline-related refereed papers/publications, books/book chapters, juried creative/performance accomplishments, and notices of discoveries filed/patents issued per core faculty member				Institution
	Type of scholarly activity per core faculty member	2007	2008	2009	
	Discipline-related refereed papers/publications	31	26	33	
	Refereed Conf. Proc.	19	29	15	
	Non-refereed or invited papers	46	12	41	
	Books/book chapters and revisions	9	6	7	
	Presentations of refereed papers	15	14	16	
	Presentations of non-refereed papers	64	55	55	
	Research report – refereed and publicly available	2	7	8	
	Notices of discoveries filed/patents issued				
	<b>TOTAL</b>	<b>186</b>	<b>149</b>	<b>175</b>	
Core Faculty External Grants	For each of the three most recent years, average of the number of core faculty receiving external funds, average external funds per faculty, and total external funds per program per academic year <sup>6</sup>				Institution
		2007	2008	2009	
	Number of Core Faculty Receiving External Funds	13	10	9	
	Average External Funds per Faculty	\$81,110	\$66,950	\$102,320	
Total External Funds for Program	\$1,216,640	\$870,375	\$1,534,840		
Faculty Teaching Load	Total number of semester credit hours in organized teaching courses taught per academic year by core faculty divided by the number of core faculty				Institution
	2006-2007	2007-2008	2008-2009		
	17.8 SCH/CF	20.6 SCH/CF	14.8 SCH/CF		

<sup>6</sup> All external funds received by core faculty from any source including research grants, training grants, gifts from foundations, etc., reported as expenditures.

Measure	Operational Definition						Reporting Source
	Note on faculty teaching load: WTAMU has a maximum of 18 faculty positions allocated to the doctoral program, so a small change in number of faculty can cause a large change in faculty load. What is not represented is the amount of support the program experiences from contributions of scientists and engineers working for Texas AgriLife Research, Texas AgriLife Extension Service, and USDA Agricultural Research Service. Their contributions significantly strengthen the program.						
Faculty Diversity	Core faculty by ethnicity (White, Black, Hispanic, Other) and gender, updated when changed						Institution
	Male	Female	White	Hispanic	Black	Pakistani	
	15	1	15	0	0	1	
Student Diversity	Enrollment headcount by ethnicity (White, Black, Hispanic, Other) and gender in program in the prior year						Coordinating Board
	Male	Female	White	Hispanic	Black	Other	
	11	4	12	1	2	0	
	The Hispanic student is a Brazilian national and the two blacks are African nationals, one from Kenya and the other from the Côte d'Ivoire.						
Date of Last External Review	Date of last formal external review, updated when changed						Institution
	An external review is tentatively scheduled for 2012, but to date no external reviews have been performed.						

Measure	Operational Definition				Reporting Source
External Program Accreditation	Name of body and date of last program accreditation review, if applicable, updated when changed				Institution
	Discipline accreditation is not applicable for this program. University accreditation is by the Southern Association of Colleges and Schools (SACS) and the last accreditation by SACS was December 2006. The PhD program is Agriculture submitted the required 3 <sup>rd</sup> year report for new programs in 2007 and received authority to continue admitting students and granting degrees.				
Student Publications/Presentations	For the three most recent years, the number of discipline-related refereed papers/publications, juried creative/performance accomplishments, book chapters, books, and external presentations per year by student FTE				Institution
	Type of scholarly activity per student FTE	2007	2008	2009	
	Discipline-related refereed papers/publications	5	2	4	
	Refereed Conf. Proc.	8	9	7	
	Non-refereed or invited papers	7	1	6	
	Presentations of non-refereed papers	10	5	8	
	<b>TOTAL</b>	<b>30</b>	<b>17</b>	<b>25</b>	
WTAMU does not currently have a database that independently captures all doctoral student scholarly activities. The numbers reflected here came from WTAMU faculty publication as recorded in the Sedona database used for the annual review of faculty performance. Students working for researchers at Texas AgriLife and USDA-ARS may have publications not reported if a WTAMU faculty member is not a co-author.					

NOTE: Institutions may wish to add a “comments” field to explain any anomalies.

## **Entrance Requirements for Doctor of Philosophy in Systems Agriculture**

The applicant to the program must have on file with the University current GRE scores and transcripts of all universities attended. The applicant must have a minimum admission score of 2400 to qualify for regular admission. The applicant may be admitted conditionally if the minimum admission score is 2250. The admission score is determined as follows:

$$\text{Admission Score} = 400 \times \text{GPA} + \text{GRE}$$

Where the GPA is based upon a 4.0 scale and the GRE score is determined by adding the verbal and quantitative or the verbal and analytical scores, whichever results in a higher score. Analytical writing examinations will be multiplied by 134. For example, a student scoring 600 on verbal, 600 on quantitative, and 4.0 on analytical results in total GRE scores of 1,200 (verbal + quantitative) and 1,136 (verbal + analytical). The student's total GRE score for purposes of admission would therefore be 1,200. A student with a 3.5 GPA and 1200 on the GRE would have an admission score of  $400 \times 3.5 + 1200 = 2600$  and would qualify for admission; however, for acceptance into the program, an appropriate faculty advisor must be identified. This requires a match between the interests and capabilities of the student and those of the prospective advisor.

## **Program Requirements for Doctor of Philosophy in Systems Agriculture**

The Ph.D. program requires a minimum of a baccalaureate degree plus a master of science (thesis preferred) with at least one degree in an agriculture discipline prior to admission to the Ph. D. program. The degree will require a minimum of 90 semester credit hours (sch) beyond the baccalaureate degree with the following requirements. (Students with a DVM or other agriculture related professional degree may be admitted and will be considered on a case-by-case basis with consideration by the potential advisor, the program director, the department head, and the deans of the college and graduate school. Students with other backgrounds may also be considered but may be expected to develop expertise in agriculture either before or after admission to the program.)

A core of 24 semester credit hours, including 12 semester credit hours of formal core courses:

- AGRI 7375 – Systems Agriculture I
- AGRI 7381 – Systems Methods
- AGRI 8303 – Systems Agriculture II
- AGRI 8000 – 12 semester credit hours of dissertation
- AGRI 7101 – One semester credit hour of graduate seminar in leadership – offered once per year and repeated three times for a total of three semester credit hours

### Multi-disciplinary Breadth

A minimum of 9 additional semester credit hours with a minimum of 3 hours each in at least two of three departmental disciplines (AGBE, ANSC, PSES) to insure multidisciplinary breadth. The courses are to be chosen from:

- AGRI 8070 – Graduate Experiences in Systems Agriculture (1 to 3 sch for a total of 3 sch) – summers only with faculty outside focus area
- AGRI 7302 – Agricultural Perspectives on Environmental Risk
- AGRI 7376 – Biotechnology in Agriculture
- AGBE 7301 – Organization, Operation and Management of Agribusiness (previously 8301)
- AGBE 7302 – Policy, Trade and the Agribusiness Firm (previously 8302)
- ANSC 7301 – Integrated Animal and Resource Management (previously 8301)
- ANSC 7302 – Case Studies in Integrated Animal Management (previously 8302)
- ANSC 7325 – Forage Resource Utilization by Grazing Animals
- PSES 7301 – Advanced Plant and Soil Management (previously 8301)
- PSES 7302 – Plant, Soil and Environmental Resource Management Perspectives (previously 8302)
- PSES 7325 – Soil-Plant-Water Relationships
- PSES 7344 – Agricultural Waste Management

### Graduate Statistics

A minimum of 6 semester credit hours of graduate level statistics equivalent to AGRI 7318 and 7301 (formerly 8301) or above must be completed in residence for the Ph. D. degree. If this requirement is satisfied during the M. S. degree, 6 semester credit hours of electives, including research, may be substituted at the discretion of the student's advisory committee and approval of the Director of the Doctoral Program with concurrence of the Department Head, Dean of the College, and Dean of the Graduate School.

### Discipline Depth

A minimum of 6 semester credit hours of Ph. D. level courses to be chosen from:

- AGBE 7301 or 7302, whichever was not taken to satisfy requirements for multi-disciplinary breadth, or other AGBE 7000 level or above course
- AGRI 7302 (formerly 8302), or other AGRI 7000 level or above course
- ANSC 7302 (formerly 8302), or other ANSC 7000 level or above course exclusive of ANSC 7301
- PSES 7302 (formerly 8302), or other PSES 7000 level or above course exclusive of PSES 7301

At the discretion of the committee, the six semester credit hours may be in a single discipline.

### Additional Credit Hour Requirements

Forty-five semester credit hours of electives from 6000 level or above courses, including research credits. No more than 9 sch may accrue from AGRI 8095, AGBE 8095, ANSC 8095, PSES 8095 or other independent or directed studies, and no more than 6 sch may accrue from directed studies in a single discipline.

### Credit for Master of Science

Up to 6 sch thesis, plus up to 2 sch seminar, plus up to 32 sch from lecture, laboratory, or independent study courses may be applied to the 90 required semester credit hours beyond the baccalaureate degree upon request of the student's graduate advisory committee and approval of the Program Director, the Department Head, Dean of the College, and the Dean of the Graduate School and Research.

Upon admission to the doctoral program, students must be continuously enrolled taking a minimum of 3 sch during each fall and spring term. Full-time students must take a minimum of 9 sch during the fall and spring terms and 6 sch during the summer term(s). After advancement to candidacy, students in residence must continuously enroll in dissertation hours adequate to maintain full-time student status, complete a substantial multi-disciplinary research project and write a dissertation of appropriate length and rigor. Students not in residence must make appropriate arrangements with their advisors which recognizes adequately the investment of resources and time made by the University and the Faculty and subject to full administrative approval through the Director of the Program, Department Head, Dean of the College, and Dean of the Graduate School. A final defense of the dissertation and final examination of the candidate will be conducted by the student's advisory committee. Should the student fail the final examination, the advisory committee shall outline the deficiencies to be corrected for the student to re-defend the dissertation. A minimum of four months must elapse before a second defense may be attempted. Should the student fail to pass the second time, the student will be automatically dismissed from the program.

Work completed in the doctoral program of another recognized graduate school will be considered on the recommendation of the departments concerned, but no assurance can be given that such work will reduce the course or residence requirements here. In no case can transferred credit reduce the minimum residency requirement of 45 semester credit hours.

**For additional information on the doctoral program in systems agriculture at West Texas A&M University, please contact:**

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Director of Doctoral Program in Systems Agriculture  
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