

*Graduate School
Annual Report*

2007-2008

*Tennessee Technological
University*

Graduate School

Administration and Staff

Dr. Francis O. Otuonye, Assoc. Vice President for Research & Graduate Studies

Denise Anderson, Graduation Analyst
Shelia Kendrick, Coordinator
Kathy Reynolds, Secretary III
Sue Smith, Executive Aide
Becky Stafford, Transcript Analyst

Vision of the Graduate School

The vision of the Graduate School is to improve human knowledge through teaching, learning, research, and outreach.

Mission of the Graduate School

The Mission of the Graduate School is to promote, coordinate, enhance the quality of, and serve as an advocate for graduate education programs at Tennessee Technological University.

Core Value: Academic excellence through critical thinking skills, lifelong learning, and promotion of diversity.

Goals

- ❑ Enhance the intellectual community of scholars among graduate students and faculty.
- ❑ Provide quality control for all graduate education programs.
- ❑ Promote the academic excellence of all graduate programs.
- ❑ Support and facilitate research, including scholarly and creative activities.

Graduate Programs

Tennessee Technological University is authorized to offer master's degree programs in five colleges or schools, specialist's programs in the College of Education, and doctoral programs in the Colleges of Arts & Sciences, Education, and Engineering.

COLLEGE/SCHOOL	MAJOR AREA	CONCENTRATION	DEGREE
Arts & Sciences	Biology	Fisheries Management General	M.S.
	Chemistry		M.S.
	Computer Science	Internet-based Computing	M.S.
	English		M.A.
	Mathematics	Applied Mathematics Mathematics Statistics	M.S.
	Environmental Sciences	Biology Chemistry	Ph.D.
Business Administration	Business Administration	Accounting General Management International Business Management Information Systems Risk Management and Insurance	M.B.A.
Education	Curriculum & Instruction	Curriculum Early Childhood Education Elementary Education Library Science (M.A. only) Reading Secondary Education Special Education	M.A./Ed.S.
	Educational Psychology & Counselor Education	Agency Counselor Educational Psychology Mental Health Counselor (M.A. only) School Counselor School Psychology	M.A./Ed.S.
	Exceptional Learning	Applied Behavior Analysis Literacy Program Planning & Evaluation	Ph.D.
	Exercise Science, Physical Education and Wellness	Elementary & Middle School Physical Education Lifetime Wellness Adapted Physical Education	M.A.
	Instructional Leadership		M.A./Ed.S.
	Engineering	Chemical Engineering	
Civil Engineering		Environmental Engineering Structural Engineering Transportation Engineering	M.S.
Electrical Engineering		Communications Theory & Electronics Computers & Digital Systems Electromagnetic Fields & Physical Electronics Networks & Control Systems Nuclear Systems Power Systems & Energy Conversion	M.S.
Mechanical Engineering		Acoustics Control Systems Design/Mechanical Systems Thermal Science/Systems Materials	M.S.
Engineering		Individual Programs	Ph.D.
RODP Programs		Advanced Studies in Teaching and Learning	
	Master of Professional Studies	Strategic Leadership	M.P.S.
	Nursing	Nursing Education Nursing Administration Nursing Informatics Family Nurse Practitioner	M.S.N.

Graduate School Executive Committee

2007-2008 Committee Members

Dr. Rafal Ablamowicz
 Mr. Everett L. Adams II
 Dr. Pedro Arce
 Dr. Pat Bagley
 Dr. Dan Combs
 Dr. Subramaniam Deivanayagam, Chairperson
 Dr. Susan Elkins
 Mr. Jason Emert
 Dr. Dennis George
 Dr. Sheila Green
 Dr. Sharon Huo
 Dr. Steve Isbell
 Dr. Glenn James
 Dr. Patricia Jordan
 Mr. Brandon Malone
 Dr. Virginia Moore
 Dr. Francis Otuonye, executive officer
 Ms. Jennifer Pascal
 Dr. Paul Semmes
 Dr. Matt Smith
 Dr. Mark Stephens
 Dr. John Wheeler
 Dr. Dale Wilson
 Dr. Bob Wood

Committee Role and Membership

Policies that govern the organization and administration of the Graduate School are developed by the Graduate School Executive Committee. As authorized by the Administrative Council of the University, the membership of this committee includes a minimum of eight faculty members, representing the four colleges in which graduate programs are offered; a minimum of seven administrators, to include representation from each of the four colleges; a minimum of four student members, also representing the four colleges; and such non-voting advisory members as may be determined by the President of the University. The Dean of Graduate Studies serves as executive officer. All appointments are made by the President. The chairperson of the committee is elected annually.

2007-2008 Meeting Dates

July 10, 2007	February 5, 2008
September 4, 2007	March 11, 2008
October 2, 2007	April 8, 2008
November 6, 2007	

Committee Actions

The executive committee met nine times—seven regular sessions and two special called meetings. The following actions were taken:

- Approved concentrations of Finance and Human Resource Management for the MBA program.
- Approved Academic Fresh Start policy for graduate students.
- Appointed Subcommittee to study the working in the Graduate Catalog and its interpretation regarding Probation/Dismissal regulations.
- Approved a request from the Division of MBA Studies to add a Fast-Track MBA.
- Approved a request from the Department of Counseling and Psychology to remove EDPY 7200 as a requirement for the Ed.S. program.
- Approved an update to the Dismissal Policy for two consecutive semesters of “No Progress” grades assigned in thesis or dissertation courses..
- Approved special requests from three students for reinstatement to graduate programs after dismissal.
- Approved extensions of time limits for 13 students.
- Approved course additions, deletions, or changes in 10 departments, divisions, or schools.
- Elected Dr. J.P. Barfield as chairperson for the 2008-2009 academic year.

Graduate Faculty

New Full Memberships

A full member of the Graduate Faculty shall have: an earned doctorate or equivalent terminal degree in an appropriate discipline; achieved professorial rank in the discipline relevant to the degree; achieved an appropriate level of scholarship and erudition characterized by honesty, accuracy, critical ability and thoroughness; and demonstrated (by involvement in institutional activities) his or her commitment to the academic community and the University, as well as to his or her students and academic discipline.

Dr. Melinda Anderson, Ph.D.	Assistant Professor of Human Ecology
Dr. Ismet Anitsal, Ph.D.	Assistant Professor of Marketing
Dr. M. Meral Anitsal, Ph.D.	Assistant Professor of Marketing
Dr. C. Pat Bagley, Ph.D.	Dean, College of Agriculture & Human Sciences
Dr. Jane Baker, Ph.D.	Assistant Professor of Curriculum & Instruction
Dr. Kathy Brashears, Ph.D.	Assistant Professor of Curriculum & Instruction
Dr. Melissa Comer, Ed.D.	Assistant Professor of Curriculum & Instruction
Dr. Yun Ding, Ph.D.	Assistant Professor of English
Dr. William F. Eberle, Ph.D.	Assistant Professor of Computer Science
Dr. Susan Elkins, Ed.D.	Dean, School of Interdisciplinary Studies
Dr. Sherrie M. Foster, Ed.D.	Assistant Professor of Counseling & Psychology
Dr. Brian Huguenard, Ph.D.	Associate Professor of Decision Sciences & Management
Dr. Steven Isbell, Ph.D.	Professor of Economics
Dr. Brian Jones, Ph.D.	Associate Professor of Decision Sciences & Management
Dr. Sarah Ann Keller, Ed.D.	Assistant Professor of Curriculum & Instruction
Dr. Christy Killman, D.A.	Assistant Professor of Exercise Science, Physical Education & Wellness
Dr. Michael T. Mayton, Ph.D.	Assistant Professor of Curriculum & Instruction
Dr. Christine Miller, Ph.D.	Professor of Business Management
Mr. R. Winston Morris, M.M.	Professor of Music
Dr. Jeffrey C. Plant, Ph.D.	Professor of Human Ecology
Dr. James C. Raymondo, Ph.D.	Professor of Sociology
Dr. Matthew R. Smith, Ed.D.	Assistant Professor of Curriculum & Instruction
Dr. Leigh Southward, Ph.D.	Assistant Professor of Human Ecology
Dr. Hwan-Sik Yoon, Ph.D.	Assistant Professor of Mechanical Engineering
Dr. Lisa Zagumny, Ph.D.	Assistant Professor of Curriculum & Instruction

New Associate Memberships

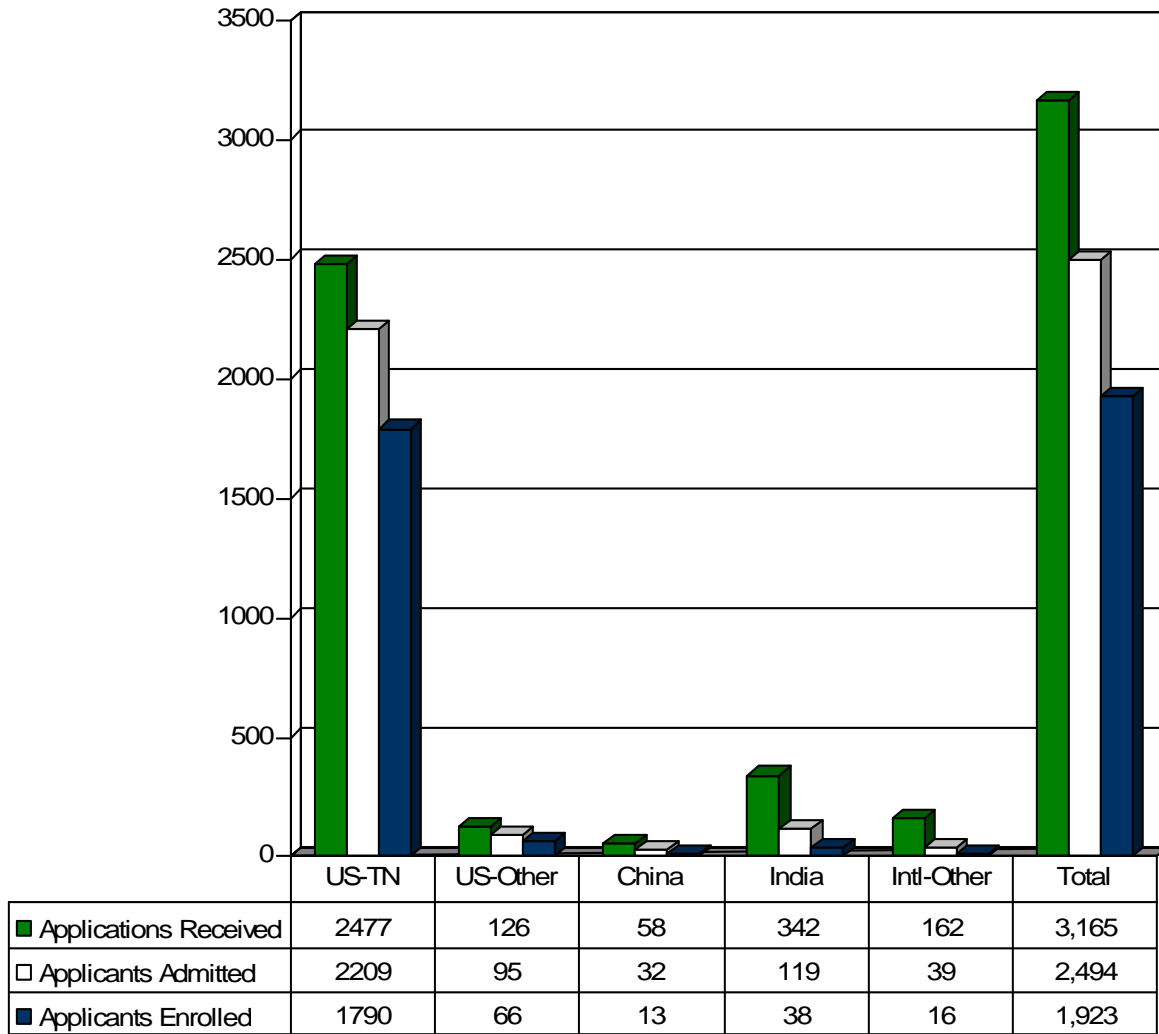
A faculty member who does not qualify for full membership on the Graduate Faculty may be appointed as an Associate Member on the basis of at least a master's degree and demonstrated specific competencies to carry out the departmental special needs for graduate teaching, advisement, or research.

Ms. LeEllen Carter, Ed.S.	Instructor of Curriculum & Instruction
Mr. Steven B. Frye, Th.M.	Assistant Professor of Counseling & Psychology
Dr. B. Bruce Greene, Ph.D.	Professor of Animal Science
Dr. Kimberly J. Hanna, Ph.D.	Assistant Professor of Nursing
Ms. Barbara Jared, M.S.N.	Assistant Professor of Nursing
Mrs. Gail Stearman, M.S.N.	Assistant Professor of Nursing
Ms. Julie Stepp, M.S.	Instructor of Curriculum & Instruction

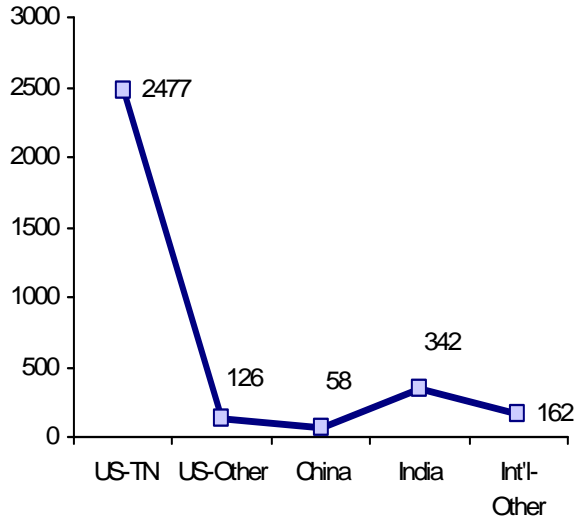
Graduate Admissions

Interest in graduate study at Tennessee Technological University continues to grow. Tremendous energy is expended in the Graduate School to assist academic departments as efficiently and expeditiously as possible in recruiting, admitting, monitoring, and assuring the completion of graduate degrees for their students.

Admissions 2007-2008



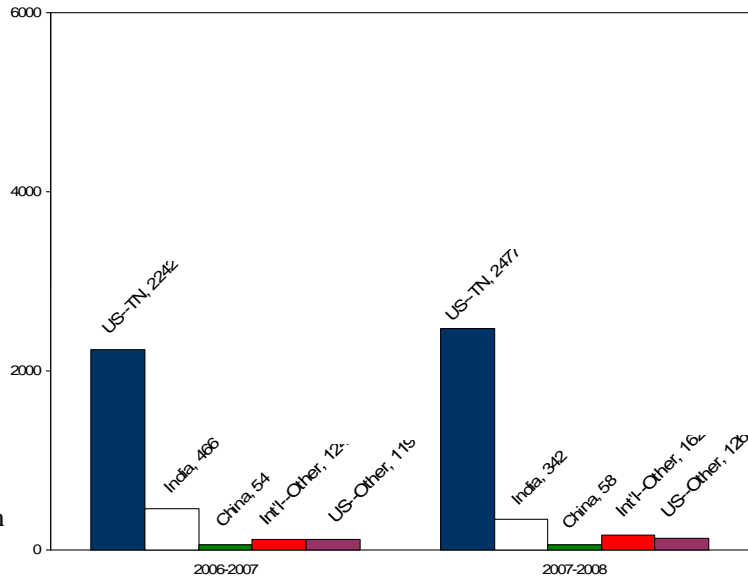
*Total Applications Received
2006-2007 vs 2007-2008*



□ The international applications from China and all other countries except India increased by 38% over 2006-2007. The applications from India decreased by 27% over the previous year. The number of US applications received in 2007-2008 increased by 16.4%.

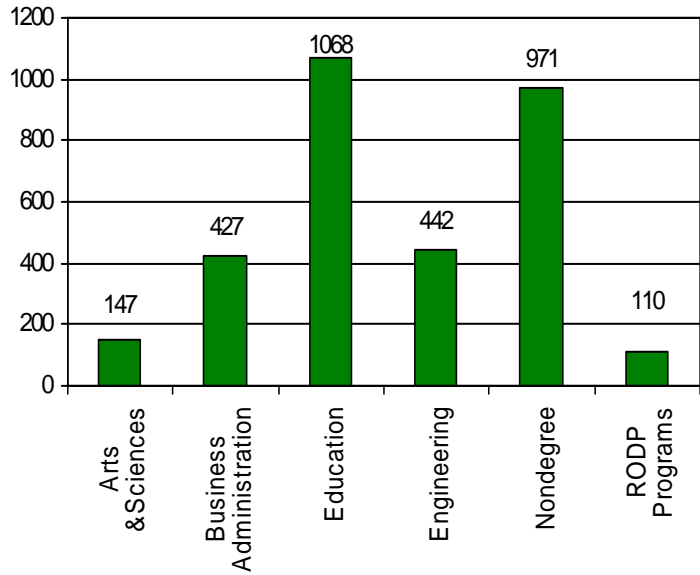
*Applications Received by Residence
2007 - 2008*

- Of the 3,165 total applications received, 78.% originated within the United States.
- Approximately 95% of the applications received from the United States were submitted by students within the state of Tennessee.
- Of the international applications received, 60.9% arrived from India, 10.3% were sent from China, with 28.8% were received from other countries.

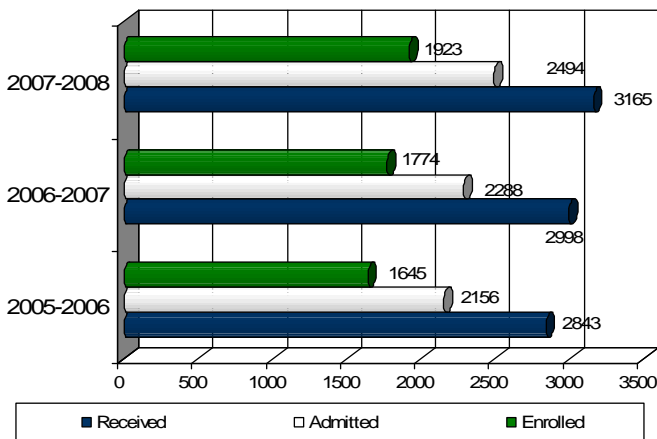


*Applications Received by Discipline
2007-2008*

□ As can be seen in the graph to the right, 33.7% of all applications received are for majors in the College of Education with the College of Engineering attracting 13.9% of the applications. The College of Business Administration is pushing closer to Engineering with 13.5%.



*Applications Resulting in Admission
and Enrollment
2005-2008*

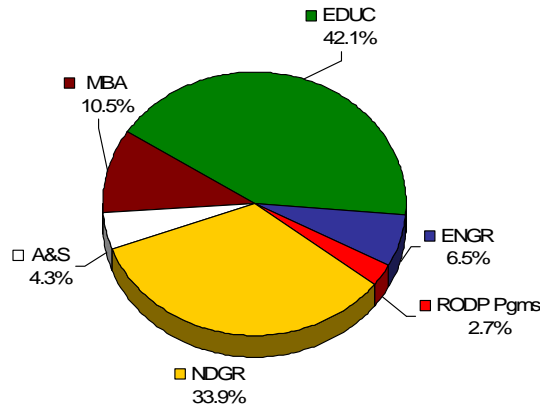


□ Of the 3,165 applications received during the 2007-2008 academic year, 78.8% resulted in admitted graduate students and 60.7% in enrolled students.

□ The number of applications, admissions, and enrolled students have steadily increased over the last 3 years.

Graduate Enrollments

Graduate Enrollment by College
2007 Fall



The College of Education holds 42.1% of the graduate enrollment with MBA holding 10.5%.

The College of Business administration has shown the largest increase in enrollment in a degree program over 2006 Fall (27.3%).

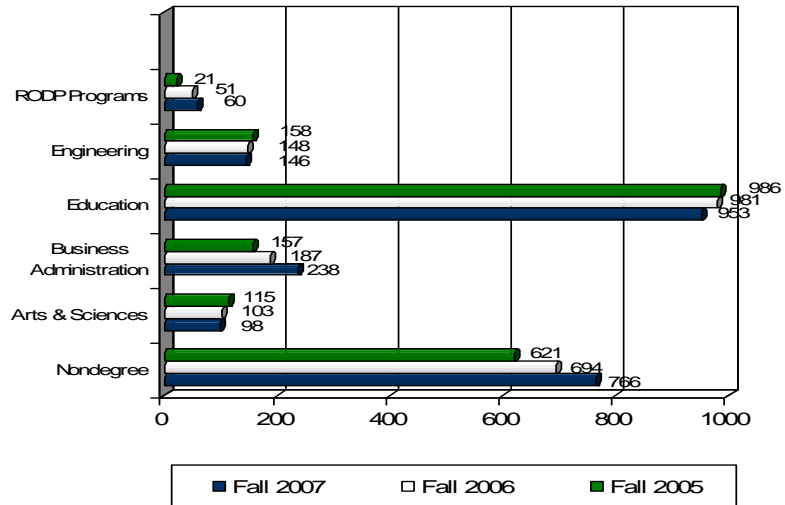
The College of Education has shown a slight decrease over the last three years.

The College of Engineering remained relatively steady over Fall 2006..

The College of Arts and Sciences saw a slight decrease in enrollment (7.2%).

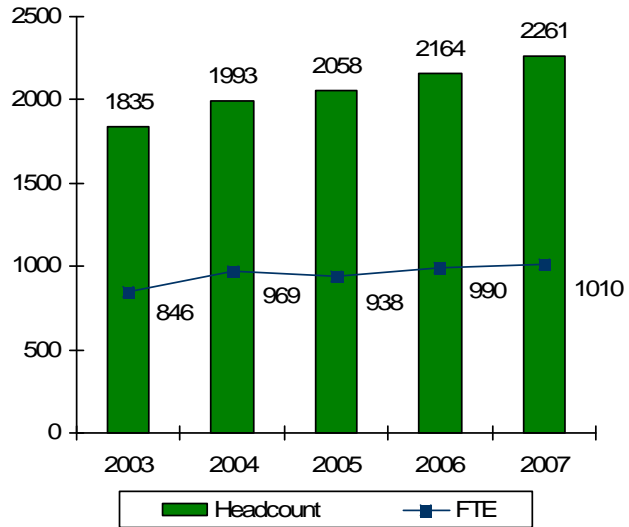
The RODP programs have shown an increase of 17.6% over Fall 2006.

Enrollment Trends by College
Fall Terms
2005-2007

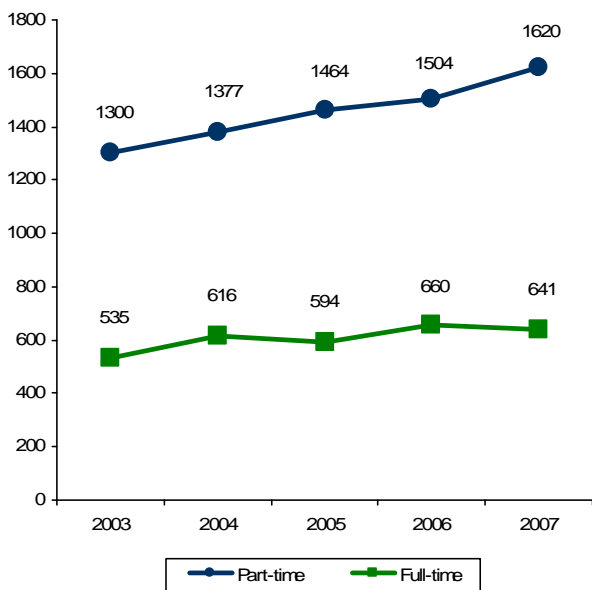


- Graduate student headcount increased 4.5% Fall 2007 while the FTE continued to increase slightly (2%).

Headcount vs. FTE Enrollment Fall Terms



Part-time vs. Full-time Enrollment Fall Terms

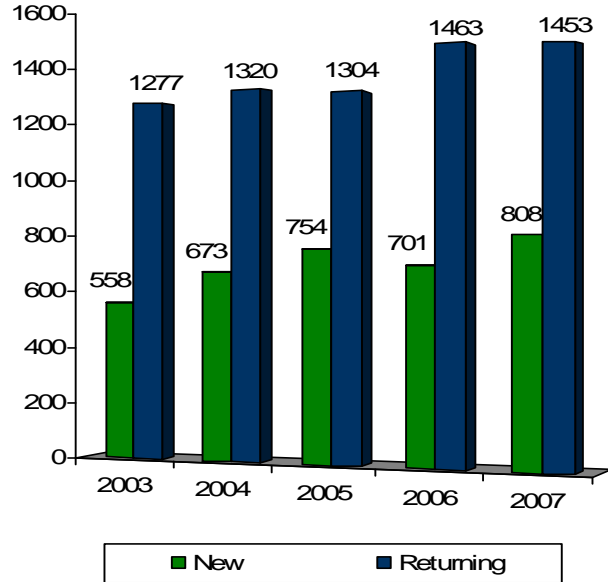


- Part-time enrollment has shown a 7.7% increase over the last year.

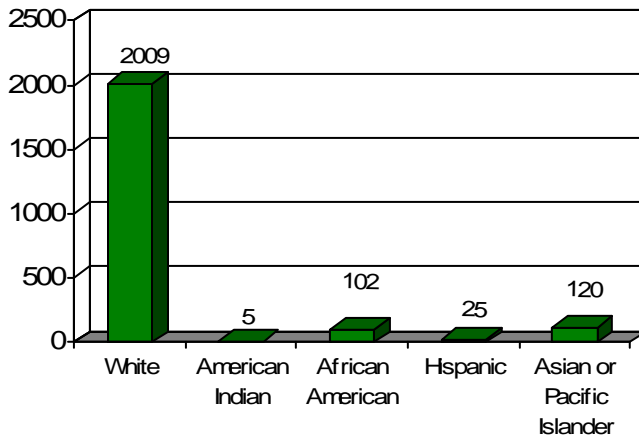
- Fulltime enrollment has shown a slight decrease of 2.9% during the last year.

*New vs. Returning Student Enrollment
Fall Terms*

□ The number of new student enrollment increased by 15% over 2006. The returning/continuing student number decreased in 2007 by less than 1%.



*Graduate Enrollment by Race
2007 Fall*

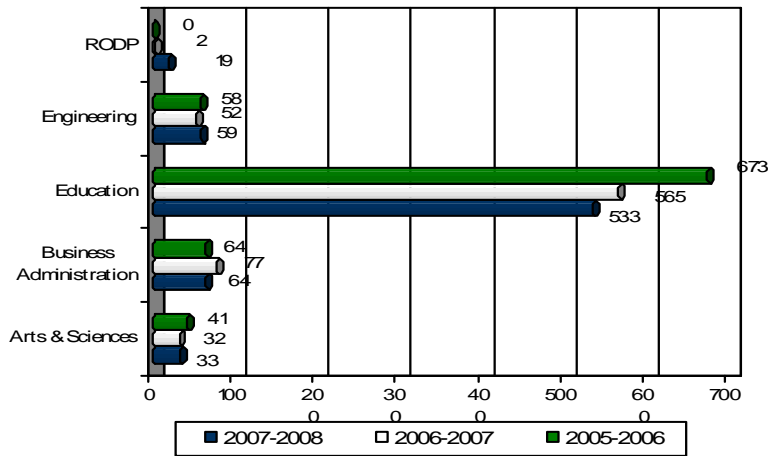


□ The graduate student enrollment is comprised of the following:

White	88.9%
Asian or Pacific Islander	5.3%
African American	4.5%
Hispanic	1.1%
American Indian	0.2%

Graduate Degrees Conferred

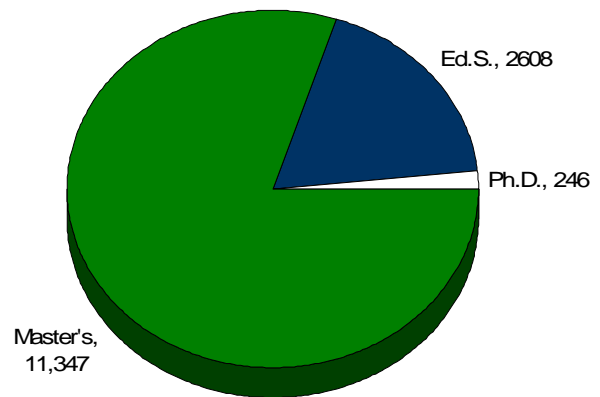
By College
2005 - 2008



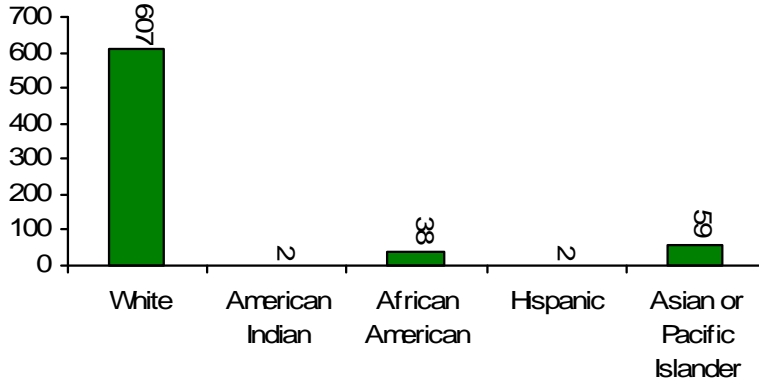
□ A comparison of the number of degrees conferred by each college for a three-year period may be seen to the left.

By Degree Level
1959-2008

- Since the inception of graduate studies, TTU has conferred 14,201 graduate degrees.
- As seen graphically at the right, the master's level represents the largest area of degrees conferred to date.



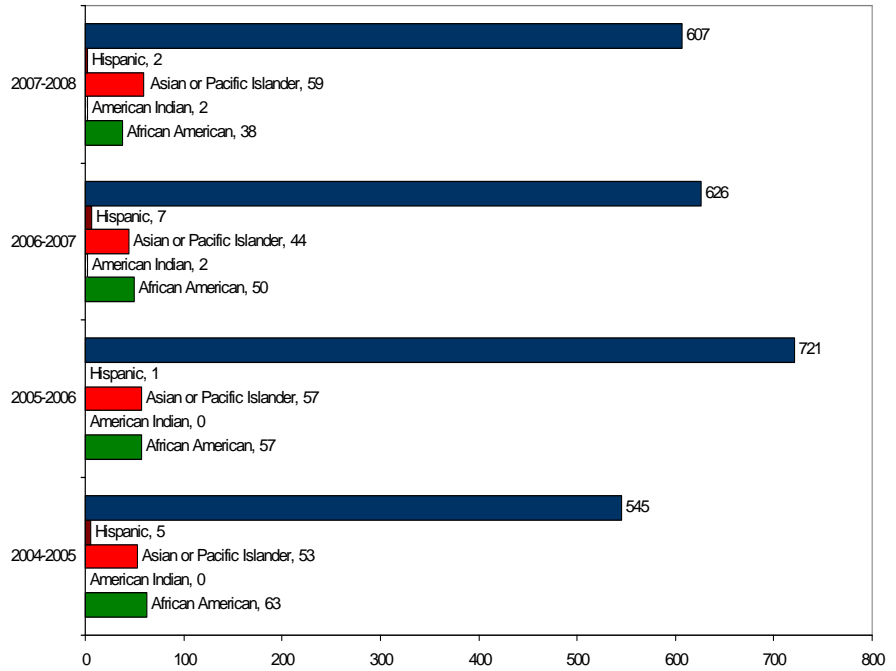
*Degrees Awarded
By Race
2007-2008*



□ The figure to the left shows the breakdown of the degrees awarded by race over the last year.

*By Race
Four-Year Comparison
2004-2005 through 2007-2008*

□ The number of degrees awarded to Asian or Pacific Islanders has increased slightly over 2006-2007, while the degrees awarded to American Indians has remained steady.



Appendix A

GRADUATE SCHOOL CHARACTERISTICS
Fall Terms 2003- 2007

	2003	2004	2005	2006	2007
Total Enrollment (FTE)	1835	1993	2058	2164	2261
	846	969	938	990	1010
<hr/>					
Full-time	535	616	594	660	641
Part-time	1300	1377	1464	1504	1620
<hr/>					
By Degree Sought					
M.A.	624	697	646	585	632
M.B.A.	146	173	157	187	238
M.Ed.	0	6	7	13	18
M.P.S.	0	0	0	9	14
M.S.	201	197	188	173	168
M.S.N.	0	8	21	29	28
Ed.S.	286	340	310	373	305
Ph.D.	87	100	108	101	92
<hr/>					
Nondegree	491	472	621	694	766
<hr/>					
By Gender					
Male	609	651	619	648	708
Female	1226	1342	1439	1516	1553
<hr/>					
By Residence					
Tennessee	1617	1765	1827	1949	2047
Out-of-State	61	73	74	60	68
International	157	155	157	155	146
<hr/>					
By Entry Status					
New	558	673	754	701	808
Returning	1277	1320	1304	1463	1453
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By Race					
White	1568	1715	1783	1911	2009
American Indian	2	3	4	4	5
African American	106	122	110	101	102
Hispanic	8	6	9	16	25
Asian or Pacific Islander	149	147	152	130	120

FALL TERM GRADUATE ENROLLMENTS
Master's, Ed.S., and Ph.D. Levels
 2003-2007

<i>College/Major</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>
ARTS & SCIENCES					
Master's					
Biology (M.S.)	30	30	39	27	27
Chemistry (M.S.)	10	8	12	11	15
Computer Science (M.S.)	9	22	18	15	12
English (M.A.)	17	17	20	19	18
Mathematics (M.S.)	10	11	13	15	12
Ph.D.					
Environmental Sciences	<u>16</u>	<u>13</u>	<u>13</u>	<u>16</u>	<u>14</u>
Subtotals	92	101	115	103	98
<hr/>					
BUSINESS ADMINISTRATION					
M.B.A.	146	173	157	187	238
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EDUCATION					
M.A.					
Curriculum & Instruction	208	219	180	196	188
Educ. Psy. & Couns. Educ.	77	80	69	56	66
Exer. Sci., Phys. Educ. & Wellness	20	27	28	44	50
Instructional Leadership	302	354	349	270	310
Ed.S.					
Curriculum & Instruction	24	28	24	31	27
Educ. Psy. & Couns. Educ.	37	24	33	22	19
Instructional Leadership	225	288	253	320	259
Ph.D.					
Exceptional Learning	<u>28</u>	<u>39</u>	<u>43</u>	<u>42</u>	<u>34</u>
Subtotals	921	1065	986	981	953
<hr/>					
ENGINEERING					
M.S.					
Chemical	18	16	10	17	18
Civil	23	17	20	17	12
Electrical	52	55	45	37	42
Industrial	2	0	0	0	0
Mechanical	47	38	31	33	30
Ph.D.					
Engineering	<u>43</u>	<u>48</u>	<u>52</u>	<u>44</u>	<u>44</u>
Subtotals	185	174	158	148	146
<hr/>					
REGENTS ONLINE DEGREE PROGRAMS					
Adv. Studies in Teaching & Learning*		6	7	13	18
Nursing (M.S.N.)**		8	21	29	28
Master of Professional Studies (M.P.S.)***				9	14
<hr/>					
NONDEGREE	491	472	621	694	766
<hr/>					
TOTALS	1835	1993	2058	2164	2261

*The Adv. Studies in Learning & Teaching Program began 2004 Summer

**The Master of Science in Nursing Program began 2004 Fall

***The Master of Professional Studies Program began 2006 Fall

GRADUATE ENROLLMENT BY DEGREE LEVELS
A Five-Year Comparison
 2003-2004 to 2007-2008

<i>Year</i>	<i>Degree</i>	<i>Summer</i>	<i>Fall</i>	<i>Spring</i>
2007-2008	M.A.	442	632	659
	M.B.A.	137	238	242
	M.Ed.	18	18	17
	M.P.S.	3	14	17
	M.S.	93	168	150
	M.S.N.	19	28	37
	Ed.S.	300	305	309
	Ph.D.	58	92	81
	NDGR	<u>44</u>	<u>766</u>	<u>78</u>
	Totals	1114	2261	1590
2006-2007	M.A.	456	585	581
	M.B.A.	129	187	176
	M.Ed.	4	13	14
	M.P.S.	0	9	11
	M.S.	82	173	177
	M.S.N.	16	29	25
	Ed.S.	289	373	387
	Ph.D.	78	101	94
	NDGR	<u>63</u>	<u>694</u>	<u>55</u>
	Totals	1117	2164	1520
2005-2006	M.A.	494	646	637
	M.B.A.	117	157	171
	M.Ed.	4	7	6
	M.S.	92	188	178
	M.S.N.	12	21	21
	Ed.S.	317	310	327
	Ph.D.	80	108	106
	NDGR	<u>47</u>	<u>621</u>	<u>118</u>
		Totals	1163	2058
2004-2005	M.A.	473	697	696
	M.B.A.	91	173	139
	M.Ed.	3	6	4
	M.S.	110	197	184
	M.S.N.		8	13
	Ed.S.	218	340	350
	Ph.D.	72	100	99
	NDGR	<u>34</u>	<u>472</u>	<u>86</u>
		Totals	1001	1993
2003-2004	M.A.	441	624	623
	M.B.A.	90	146	130
	M.S.	120	201	200
	Ed.S.	232	286	283
	Ph.D.	51	87	92
	NDGR	<u>41</u>	<u>491</u>	<u>67</u>
		Totals	975	1835

GRADUATE DEGREES CONFERRED BY COLLEGE
A Three-Year Comparison

<i>College/Major</i>	<i>2005-2006</i>			<i>2006-2007</i>			<i>2007-2008</i>		
	<i>Sum.</i>	<i>Fall</i>	<i>Spr.</i>	<i>Sum.</i>	<i>Fall</i>	<i>Spr.</i>	<i>Sum.</i>	<i>Fall</i>	<i>Spr.</i>
ARTS & SCIENCES									
Biology (M.S.)	5	3	9	3	1	7	3	2	5
Chemistry (M.S.)	1	1	1	1	1	2	1	2	1
Computer Science (M.S.)	5	2	1	3	0	1	4	5	1
English (M.A.)	2	2	4	1	1	5	0	2	2
Math (M.S.)	0	2	3	1	1	4	0	0	2
Ph.D.									
Environmental Sciences	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>0</u>
Subtotals	13	10	18	9	4	19	10	12	11
BUSINESS ADMIN.									
M.B.A.	31	17	16	31	32	14	26	20	18
EDUCATION									
M.A.									
Curr. & Instruction	40	7	27	19	16	19	11	19	24
Educ. Psychology	4	1	11	7	6	16	3	4	4
Health & P.E.	3	1	5	5	1	10	3	6	5
Instruct. Leadership	113	47	109	91	35	56	74	57	57
Ed.S.									
Curr. & Instruction	2	0	1	2	2	4	4	2	7
Educ. Psychology	3	7	9	1	3	8	2	0	5
Instruct. Leadership	137	33	99	78	35	139	107	56	75
Ph.D.									
Exceptional Learning	<u>5</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>7</u>	<u>4</u>	<u>5</u>	<u>1</u>	<u>2</u>
Subtotals	307	103	263	204	105	258	211	145	185
ENGINEERING									
M.S.									
Chemical	3	2	0	1	2	1	0	4	0
Civil	2	2	3	0	4	5	4	1	2
Electrical	8	12	3	9	5	3	3	14	2
Mechanical	6	7	3	8	2	2	7	5	4
Ph.D.									
Engineering	<u>2</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>2</u>	<u>6</u>	<u>4</u>	<u>3</u>
Subtotals	18	26	11	21	18	13	20	28	11
REGENTS ONLINE DEGREE PROGRAMS									
Adv. Stu. Tchg. & Lrng. (Med)	2	0	2	0	0	2	2	0	6
Master of Prof. Studies (MPS)	0	0	0	0	0	0	0	0	0
Nursing (MSN)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>4</u>
Subtotals	2	0	2	0	0	3	6	3	10
TOTALS	372	156	308	265	159	305	271	208	229

GRADUATE DEGREES CONFERRED TO DATE
1959-2008

<i>Year</i>	<i>Master's</i>	<i>Specialist</i>	<i>Doctoral</i>
1959-1960	9		
1960-1961	15		
1961-1962	16		
1962-1963	15		
1963-1964	19		
1964-1965	22		
1965-1966	31		
1966-1967	60		
1967-1968	88		
1968-1969	109		
1969-1970	124		
1970-1971	198		
1971-1972	203	7	
1972-1973	257	6	
1973-1974	217	18	2
1974-1975	247	20	1
1975-1976	260	30	4
1976-1977	240	23	3
1977-1978	205	13	1
1978-1979	253	25	1
1979-1980	222	41	3
1980-1981	277	31	2
1981-1982	229	26	2
1982-1983	196	36	4
1983-1984	208	26	6
1984-1985	252	31	4
1985-1986	213	32	2
1986-1987	178	35	7
1987-1988	206	32	5
1988-1989	298	46	6
1989-1990	264	19	8
1990-1991	185	35	4
1991-1992	247	44	7
1992-1993	221	36	7
1993-1994	231	50	15
1994-1995	269	44	8
1995-1996	268	64	9
1996-1997	284	43	11
1997-1998	333	69	3
1998-1999	334	80	8
1999-2000	348	91	4
2000-2001	392	101	5
2001-2002	414	117	7
2002-2003	448	158	15
2003-2004	382	174	9
2004-2005	467	185	14
2005-2006	532	291	13
2006-2007	435	272	22
2007-2008	<u>426</u>	<u>258</u>	<u>24</u>
TOTALS	11,347	2608	246

Appendix B

Dissertations and Theses

July 1, 2007—June 30, 2008

DISSERTATIONS

- Baburao, Barath.** “Thermodynamic Modeling of Aqueous Hydrogen Fluoride Mixtures.” August 2007. Engineering. (Dr. Donald P. Visco, Jr.)
- Baker, Jane Ellen.** “Teacher Talk, Teaching Philosophy, and Effective Literacy Instruction in Primary-Grade Classrooms.” August 2007. Exceptional Learning. (Dr. Darrell H. Garber)
- Cantrell, Corey L.** “Performance Modeling of a Pulverized Coal Boiler.” December 2007. Engineering. (Dr. Stephen Idem)
- Chandekar, Gautam S.** “Cavitation Damage Potential Correlated to Diesel Engine Coolant Properties.” August 2007. Engineering. (Dr. Sally J. Pardue)
- Godbolt, Qusay M.** “The Efficacy of Behavior Support Plans: An Evaluation of Behavior Support Plans Emphasizing Professional Teach Collaboration, Social Validity, and Treatment Integrity.” December 2007. Exceptional Learning. (Dr. John J. Wheeler)
- Gregory, Richard Eugene.** “An Experimental Damage Tolerance Study of Low-Velocity, High-Mass Impact and Compression after Impact Responses of Locally Porous, Thin, Quasi-Isotropic Graphite/Epoxy Composite Laminates.” August 2007. Engineering. (Dr. Christopher D. Wilson)
- Grey, Audley Bruce.** “Unified Solution of Security-Constrained Unit Commitment (SCUC) Problem Using a Linear Programming Methodology.” August 2007. Engineering. (Dr. Arun Sekar)
- Hill, Andrew Jason.** “Monitoring and Modeling the Hydrology of a Forested Sinkhole Wetland on the Tennessee Highland Rim.” December 2007. Engineering. (Dr. Vincent Neary)
- Hyde, Luke Justin.** “Improvements in Machine Tools with Respect to Vibration Damping.” December 2007. Engineering. (Dr. Sally J. Pardue)
- Kittell, Deborah Denise.** “Sleuthing: Using the Key-Words Clue Strategy to Identify Arithmetical Operations When Solving Mathematical Word Problems.” August 2007. Exceptional Learning. (Dr. Darrell H. Garber)
- Kline, Dara Thompson.** “An Analysis of the Behavioral and Classroom Interactions of Children exposed to Methamphetamine in the Home.” August 2007. Exceptional Learning. (Dr. John J. Wheeler)
- Kuiken, Todd.** “Mercury Air/Surface Exchange over Terrestrial Background Surfaces of the Eastern USA and its Policy Implications.” August 2007. Environmental Sciences. (Dr. Hong Zhang)
- Li, Zhonghua.** “Photocatalytic Degradation of Atrazine.” August 2007. Environmental Sciences. (Dr. Dennis B. George)
- Pang, Yanhui.** “Factors Associated with the Experiences of Parents in the Transitioning of Their Young Children from Early Intervention to Programs for Three-Year-Olds.” May 2008. Exceptional Learning. (Dr. D. Dean Richey)

- Perivilli, Satish V.N.** “Quasi-Steady Modeling of Friction Stir Welding Heat Transfer.” August 2007. Engineering. (Dr. John Peddieson, Jr., & Dr. Jie Cui)
- Saha, Samrat.** “Behavioral and Physiological Responses of Freshwater Mussels (Bivalvia: Unionoida) to Variations in Stream Discharge.” December 2007. Environmental Sciences. (Dr. James B. Layzer)
- Sewell, Tamara Ann.** “Family-Centered Practice in Early Intervention and Early Childhood Special Education Personnel Preparation.” August 2007. Exceptional Learning. (Dr. D. Dean Richey)
- Swaminathan, Saravanan.** “Detailed Analysis and Critical Evaluation of the Effects of the Pure Component Parameterization Methodology on Mixture Property Predictions for Thermodynamic Equations of State.” August 2007. Engineering. (Dr. Donald P. Visco, Jr.)
- Tucker, Charles J.** “Predicting the In-Plane Capacity of Masonry Infilled Frames.” December 2007. Engineering. (Dr. R. Craig Henderson)
- Wilson, Brenda Chaffin.** “A Newspaper Reading Habit in College Students: Family Newspaper Literacy Practices, K-12 Newspaper Exposure, and Civic Interest.” August 2007. Exceptional Learning. (Dr. Suellen Alfred)
- Young, Matthew Nicholas.** “Inlet Installation Effects on Propeller Fans, Air and Sound.” May 2008. Engineering. (Dr. Corinne M. Darvennes & Dr. Stephen Idem)
- Zhang, Jie.** “The Efficacy of Peer-Mediated Interventions for Promoting Social Interactions Among Young Children with Autism Spectrum Disorders: A Meta-Analysis.” May 2008. Exceptional Learning. (Dr. John J. Wheeler)
- Zhang, Qiang (John).** “Ultra-Wideband (UWB) Impulse Radio Communication System Design and Prototyping.” May 2008. Engineering. (Dr. Robert Qui)
- Zhou, Chenming (Jim).** “Impulsive Radio Propagation and Time Reversed Mimo System for UWB Wireless Communications.” May 2008. Engineering. (Dr. Robert Qui)

THESES

- Abounassif, Ahmed.** “Thermal Modeling of a Current Transformer.” May 2008. Mechanical Engineering. (Dr. John Peddieson, Jr.)
- Adams-II, E. L.** “The Effect of Music Genre on Personal Reflection, Feelings, and Insights in a Listening Task.” December 2007. Educational Psychology and Counselor Education. (Dr. Jann D. Cupp)
- Agarwal, Preeti.** “A Study of Partial Precoders and the Effect of Measurement Noise on UWB Time-Reverse Communication Systems.” December 2007. Electrical Engineering. (Dr. P. K. Rajan)
- Akinwumi, Akinyemi Seun** “Numerical Behavior of the QR-Decomposition Approach to Solving the Recursive Adaptive Filter Problem.” May 2008. Mathematics. (Dr. Richard LeBorne)
- Anantharaju, Neeharika.** “Surface Topology-Induced Ultrahydrophobic Behavior: Effect of Three-Phase Contact Line Topology.” August 2007. Mechanical Engineering. (Dr. Mahesh V. Panchagnula)

- Anwar, Fahad.** “Experimental and Numerical Study of Turbulent Airflow in a Large Commercial Rooftop Air-Conditioning System.” December 2007. Mechanical Engineering. (Dr. Jie Cue)
- Ballard, David.** “Electrical and Mechanical Evaluation of a Novel Noble Metal-Perovskite Composite as SOFC Contact Material.” August 2007. Mechanical Engineering. (Dr. Jiahong Zhu)
- Barbour, Holly.** “A Hostage Twice: Children’s Indian Captivity Narratives in American Literature.” May 2008. English. (Dr. Josephine A. McQuail)
- Bhamidipati, Srimani.** “Eulerian Multi-Fluid Model of Fragmenting Droplet Laden Flows.” May 2008. Mechanical Engineering. (Dr. Mahesh V. Panchagnula)
- Bhosale, Prasad S.** “Nanoparticle Thin Film Deposition Using CO₂ Expanded Liquids.” December 2007. Chemical Engineering. (Dr. Holly A. Stretz)
- Brachey, Troy.** “Gröbner Basis Algorithms for Grassmann Algebras in a Maple Package.” May 2008. Mathematics. (Dr. Rafal Ablamowicz)
- Busam, Sirisha.** “Development of Hybrid Biosensor Techniques Utilizing Artificial Neural Networks.” August 2007. Chemistry. (Dr. Mona Wells)
- Chintala, Rama Satyanarayana.** “Design Optimization of a 35nm Independently-Double-Gated Flexfet SOI Transistor.” December 2007. Electrical Engineering. (Dr. Stephen A. Parke)
- Cox, Jon Rylan.** “Single-Lap Shear Testing to Investigate Pan-Based Carbon Nanofiber and Vapor Grown Carbon Nanofiber Sheet Reinforcement to Laminated Graphite/Epoxy Composite Interlaminar Shear Strength.” August 2007. Mechanical Engineering. (Dr. Christopher D. Wilson)
- Damer, John D.** “The Fate of Brook Trout Stocked in the Watauga River Below Wilbur Dam.” May 2008. Biology. (Dr. Phillip W. Bettoli)
- Devakaram, Divya Sharon Edison.** “Determination of a Water Quality Marker Reflecting the Effectiveness of the Sewanee Utility Districts Land Application System.” August 2007. Civil Engineering. (Dr. Dennis B. George)
- Ey, Jeremy Lawrence.** “A Knowledge Discovery and Modeling Framework for Population-Sensitive Evaluation of Record Linkage Algorithms.” August 2007. Computer Science. (Dr. Douglas A. Talbert)
- Flatt, Sean Aaron.** “Investigation of *Polygonum cuspidatum* as a Potential Hyperaccumulator of Manganese.” May 2008. Biology. (Dr. Daniel L. Combs)
- Frank, Frances H.** “Intelligent Scheduling in the Service Sector Industry.” August 2007. Computer Science. (Dr. Douglas A. Talbert)
- Goteti, Sowmya Deepika.** “Implementation of Markle Interoperability Layer for Sharing of Medical Records.” December 2007. Computer Science. (Dr. Michael D. Rogers)
- Gudipati, Praveen.** “Ischemic Episode Detection in an Egg Waveform Using Discrete Cosine Transform and Artificial Neural Network.” December 2007. Electrical Engineering. (Dr. P. K. Rajan)
- Guduru, Anupama.** “Analytical Solutions for Electrolyte Concentration Distribution in Li Ion Batteries.” December 2007. Chemical Engineering. (Dr. Venkat R. Subramanian & Dr. Joseph J. Biernacki)

- Gundluri Ramachandran, Jagadesh B.** “Removal of Mercury from Flue Gas Using a Pulsed Corona Technique.” August 2007. Electrical Engineering. (Dr. Satish M. Mahajan)
- Hardison, Daniel.** “Synthesis of Templated Nanomaterials and Smart Hydrogels with Possible Applications in Sensing.” December 2007. Chemistry. (Dr. Mona Wells.)
- Henegar, Jason A.** “Seasonal Movement, Habitat, and Thermal Ecology of Smallmouth Bass in the Holston River Drainage.” December 2007. Biology. (Dr. Phillip W. Bettoli)
- Hirai, Eriko.** “Lumped Parameter Thermal Modeling of a Current Transformer.” May 2008. Mechanical Engineering. (Dr. John Peddieson, Jr.)
- Hood, Kristen Lee.** “Experimental Analysis of Internal Curing Materials for the Mitigation of Autogenous Shrinkage in High Performance Cement-Based Materials.” May 2008. Civil Engineering. (Dr. Benjamin Mohr)
- Jamison, Nicholas D.** “Physiology, Survival, and Dispersal of Tournament-Caught Largemouth Bass.” August 2007. Biology. (Dr. Phillip W. Bettoli)
- Janaki, Lalitha.** “Interactions Between *Mycobacterium avium subsp. Paratuberculosis* and Protozoa Isolated from a Farm Environment.” August 2007. Biology. (Dr. Sharon G. Berk)
- Junga, Phaneeth Kumar Reddy.** “A Reliable Wireless Sensor Network for Metal-Fill Monitoring.” December 2007. Electrical Engineering. (Dr. Mohamed Abdelrahman)
- Kandlakunta, Sahithi.** “Laser-Induced Fluorometry and Velocimetry: Towards Implementing Quantum Dots as Combustion Fluorophores.” August 2007. Mechanical Engineering. (Dr. Mahesh V. Panchagnula)
- Katiyar, Nitin.** “Development of an Open-Book Watershed Model for Rapid Prototyping of Satellite-Based Flood Forecasting in International River Basins.” August 2007. Civil Engineering. (Dr. Faisal Hossain)
- Kulkarni, Devendra M.** “Laboratory Testing of Duct Fittings to Determine Pressure Loss Coefficients.” December 2007. Mechanical Engineering. (Dr. Stephen Idem)
- Liu, Lirong.** “Fundamental Aspects Related to Characterization and Processing of Platinum Aluminide Coatings on Ni-Base Superalloys.” December 2007. Mechanical Engineering. (Dr. Ying Zhang)
- Lopez-Garcia, Manual.** “Multi-Domain DWDM Network Provisioning with Full Wavelength Conversion.” December 2007. Electrical Engineering. (Dr. Nasir Ghani)
- Malone, Brandon M.** “Incorporating Visualization in an Interpreted Language for Educational Benefit.” May 2008. Computer Science. (Dr. Frank O. Hadlock)
- Malone, Somer R. Walls.** “A Framework for Topological, Shape, and Size Synthesis of Compliant Mechanisms.” August 2007. Mechanical Engineering. (Dr. Stephen L. Canfield)
- Mengal, Virginia Malissa.** “Life History and Population Demographics of the Fluted Kidneyshell (*Ptychobranthus subtentum*) (Bivalvia: Unionidae).” December 2007. Biology. (Dr. James B. Layzer)
- Mikel, Sean E.** “Measurement of Induced and Residual Strain States in Portland Cement Using Various Novel Techniques.” December 2007. Chemical Engineering. (Dr. Joseph J. Biernacki, Jr.)

- Mullins-Jr., Gene A.** “Measurement of Semi-Volatiles in Used Natural Gas Engine Oil Using Thermogravimetric Analysis.” December 2007. Chemistry. (Dr. Dale D. Ensor)
- Murthi, Gayathri.** “Comprehensive Analysis and Modeling of Three-Phase Z-Source Converters” December 2007. Electrical Engineering. (Dr. Joseph O. Ojo)
- Nadgir, Shantanu K.** “Buckling of Circular Cylindrical Shells.” December 2007. Mechanical Engineering. (Dr. John Peddieson, Jr. & Dr. George R. Buchanan)
- Nimmagadda, Suman.** “Performance Evaluation of SoPC and Single-Custom Processor Models of RC5 Encryption Algorithm.” December 2007. Electrical Engineering. (Dr. Omar S. A. ElKeelany)
- Palla, Venkata Durga Nagesh.** “A Scaling Parameter for Determining Exfoliation Efficiency in Nanocomposites.” December 2007. Chemical Engineering. (Dr. Holly A. Stretz)
- Pama, Ely Alexander.** “A New Method for Determination of Voltage Stability Margin and Improvement of Dynamic Voltage Stability Through Power System Voltage Stabilizer.” December 2007. Electrical Engineering. (Dr. Ghadir Radman)
- Pellegrini, Damon Matthew.** “Free Vibration Analysis of Shell Panels with Bezier Cubic Cross Sections Using the Gröbner Basis Method.” August 2007. Civil Engineering. (Dr. Jane Liu)
- Powell, Jeffrey L.** “Modeling of Dynamic Loads for Voltage Stability Studies.” December 2007. Electrical Engineering. (Dr. Ghadir Radman)
- Priebel, David.** “Hierarchical Matrix Based Smoother for the Multigrid Method.” August 2007. Computer Science. (Dr. Sabine LeBorne & Dr. Martha J. Kosa)
- Racha, Sai Kishore Reddy.** “Damage Characterization of Four Wrought Aluminum Alloys.” May 2008. Mechanical Engineering. (Dr. Christopher D. Wilson)
- Rahm, Eric J.** “Spatial Distribution and Microhabitat of Adult and Juvenile Mussels (Bivalvia: Unionidae) within a Bed.” May 2008. Biology. (Dr. James B. Layzer)
- Rajagopalan, Aswini.** “Improved Traffic Signal Efficiency in Rural Areas Through the Use of Variable Maximum Green Time.” December 2007. Civil Engineering. (Dr. Steven M. Click)
- Self, Jonathan D.** “Very Early Strength Non-Excavatable CLSM.” May 2008. Civil Engineering. (Dr. L. K. Crouch)
- Singareddy, Uma Maheshwar.** “Development of Real Time Sag Monitoring System Using Differential Global Positioning System.” December 2007. Electrical Engineering. (Dr. Satish M. Mahajan)
- Sivan, Vinod.** “Experimental Determination of Thermal Model Parameters of a Medium Voltage Current Transformer.” December 2007. Electrical Engineering. (Dr. Satish M. Mahajan)
- Smith, Andrew Michael.** “Utilizing Piezo Film as a Two-Dimensional Accelerometer.” August 2007. Mechanical Engineering. (Dr. Darrell E. P. Hoy)
- Smith, Eric L.** “Savic Victorian Masculinity.” December 2007. English. (Dr. Josephine A. McQuail)

- Sunkara, Manjula.** “Solid-Phase Extraction and Liquid Chromatography-Tandem Mass Spectrometry Method Development for Determination of Acetaminophen and Selected Phase I and Phase II Metabolites in Wastewater.” May 2008. Chemistry. (Dr. Martha J. M. Wells)
- Syed, Fatir Hussain.** “Transient Analysis of a Cross Flow Heat Exchanger Using Finite Difference Analysis.” December 2007. Mechanical Engineering. (Dr. Jie Cui & Dr. Stephen Idem)
- Tennety, Chakrapani.** “Prediction of Waste Temperatures in a Bioreactor with the Aid of Artificial Neural Networks.” August 2007. Civil Engineering. (Dr. Lenly Weathers)
- Twyman-III, Walter Dan.** “Grenada Dove Ecology in a Post-Hurricane Environment.” May 2008. Biology. (Dr. Steven E. Hayslette)
- Vance, Jonathan Mark.** “First- and Second-Year Survival and Growth of American Chestnuts Planted in Natural Canopy Gaps.” August 2007. Biology. (Dr. Daniel L. Combs)
- Vince, George Jose.** “Design of a Portable Audio Capture and Recording Embedded System Using System on Programmable Chip Technology.” December 2007. Electrical Engineering. (Dr. Omar S. A. Elkeelany)
- Vootkuri, Sudheer.** “Modeling Independent Double Gate Silicon-on-Insulator (IDG SOI) MOSFET.” December 2007. Electrical Engineering. (Dr. Stephen A. Parke)
- Wang, Jun.** “Sub-Branch Identification and Rectification of Stephenson Six-Bar Linkages and Geared Five-Bar Linkages.” August 2007. Mechanical Engineering. (Dr. Kwun-Ion Ting)
- Weber, Andrew S.** “An Evaluation of Techniques for Assessing Turtle Assemblages.” May 2008. Biology. (Dr. James B. Layzer)
- Yenuguvanilanka, Jyothi.** “Performance Evaluation of Hardware Models of Advanced Encryption Standard (AES) Algorithm.” May 2008. Electrical Engineering. (Dr. Omar S. A. ElKeelany)

2007-2008 Historical Data

Academic Terms

<i>Summer Semester 2007</i>		
	May 28	Registration
	August 4	Commencement
<i>Fall Semester 2007</i>		
	August 24	Registration
	December 15	Commencement
<i>Spring Semester 2008</i>		
	January 11	Registration
	May 3	Commencement

Fees and Expenses

<i>Application Fee</i>	\$ 25.00	American Applicants
	\$ 30.00	International Applicants
<i>Graduate Tuition</i> (Payable by nonresidents of Tennessee)	\$446.00 per hour, maximum \$5138.00 per semester*	
<i>Graduate Maintenance Fee</i> ** (Payable by all students)	\$347.00 per hour, maximum \$3150.00 per semester*	
<i>Thesis & Dissertation Binding Fees</i>	\$10.00 per copy	
Postage	\$5.00 to U.S. addresses	
	\$6.00 to non-U.S. addresses	

*Summer Semester Fees will be charged at the per-hour rates with no maximum amount.

**Graduate fees are comprised of the following fees: maintenance, general access, debt service, and student government.



The Graduate School Annual Report 2007-2008. The information in this report was compiled and edited by Shelia Kendrick.
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