TEXAS STATE VITA

I. Academic/Professional Background

A. Name: Dr. Stewart C. Welsh Title: Professor

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
PH.D.	1985	Univ of Glasgow	Mathematics, General	Generalized Topological Degree and Bifurcation Theory
B.S.	1981	Univ of Glasgow	Mathematics, General	

C. University Experience

Position	*University*	*Dates*
Visiting Assistant Professor	Texas A&M. University. College Station, TX	1985 – 1988
Assistant Professor	Texas State University	1988 – 1990
Associate Professor	Texas State University	1990 – 1997
Professor	Texas State University	1997 – Present

II. TEACHING

A. Teaching Honors and Awards:

Award/Honor Recipient: Excellence in Service Award 2016, Department of Mathematics 2016.

Award / Honor Recipient: Commendations from the Retention Management and Planning Department.
2016
2009
2008

Award / Honor Recipient: Excellence in Research Award, Department of Mathematics.
1997

B. Courses Taught:

Texas State University:

MATH 1315 - COLL ALGEBRA

MATH 1319 - MATH BA+ECO I

MATH 1319 - MATH BUS & ECO I

MATH 1329 - MATH BUS & ECO II

MATH 2321 - CALC LIFE SCI I

MATH 2321 - MATH LIF SCI I

MATH 2331 - CALC LIFE SCI II

MATH 2331 - MATH LIF SCI 2

MATH 2358 - DISCRETE MATH I

MATH 2471 - CALCULUS I

MATH 2472 - CALCULUS II

MATH 3305 - INTRO PROB & STATS

MATH 3323 - DIFFEREN EQUAT

MATH 3330 - INTRO ADV MATHEMAT

MATH 3330 - INTRO TOPOLOGY

MATH 3373 - CALCULUS III

MATH 3377 - LINEAR ALGEBRA

MATH 3380 – REAL ANALYSIS I

MATH 3398 - DISCRETE MATH II

MATH 4306 - FOURIER SERIES

MATH 4315 – REAL ANALYSIS II

MATH 4336 - STUDIES APPL MATH

MATH 5301 - PARTIAL DIFFER EQUATI

MATH 5312 - FUNCT COMPX VAR

MATH 5319 - THEORY INTEGRATION

MATH 5319 - THEORY OF INTEGRAT

MATH 5336 - STUDIES APP MATH

MATH 5358 - APPLIED DISCR MATH

MATH 5373 - FUNCT REAL VBLE

MATH 5399A - THESIS

MATH 5399B - THESIS

MATH 7303 - ANALYSIS

MATH 7313 - ANALYSIS II

F. Other:

Seminar, A-priori bounds and nodal properties for periodic solutions to a class of ordinary differential equations. San Marcos, TX, United States. (1993).

Seminar, Existence and uniqueness of initial value problems for a class of second– order ordinary differential equations. San Marcos, TX, United States. (1989).

III. SCHOLARLY/CREATIVE

1. Articles:

Welsh, S. C., Obara, S. Which is greater e^ pi or pi^ e? Under review in Issues in the Undergraduate Mathematics Preparation of School Teachers.

Welsh, S. C., Treinen, R. The effects of refraction on the equinox. In preparation. Expected date of submission: Oct. 2020.

Welsh, S. C. (2009). Global bifurcation of a class of period boundary-value problems. *Nonlinear Analysis: T.M.A., 71*(11), 5248-5255.

Welsh, S. C. (2005). A generalized-degree homotopy yielding global bifurcation results. *Nonlinear Analysis: T.M.A., 62*, 89-100.

Welsh, S. C. (1998). A remark on real parameter global bifurcation. *Acta Mathematica Hungarica, 78*(3), 199-211.

Welsh, S. C. (1998). One – parameter global bifurcation in a multiparameter problem. *Colloquium Mathematicum, 77*(1), 85-96.

Bandy, C., Torrejon, R., Welsh, S. C. (1997). Dust Particles and Rain. *The Amytyc Review, 19*(1), 21-26.

Welsh, S. C. (1997). The time from sunrise to sunset. *Texas Journal of Science, 49*(4), 303-314.

Welsh, S. C. (1996). Open mappings and solvability of nonlinear equations in Banach space. *Proceedings of the Royal Society of Edinburgh, 126A*, 239-246.

Welsh, S. C. (1996). The length of twilight at the Winter solstice. *European Journal of Physics, 17*, 183-189.

Welsh, S. C. (1995). A vector parameter global bifurcation result. *Nonlinear Analysis: T.M.A., 25*(12), 1425-1435.

Welsh, S. C. (1992). A priori bounds and nodal properties for periodic solutions to a class of ordinary differential equations. *Journal of Mathematical Analysis and Applications, 171*(2), 395-406.

Welsh, S. C. (1991). Sufficient conditions for periodic solutions to a class of second-order differential equations. *Nonlinear Analysis: T.M.A., 17*(1), 85-93.

Webb, J.R.L., Welsh, S. C. (1989). Existence and uniqueness of initial value problems for a class of second-order differential equations. *Journal of Differential Equations, 81*.

Welsh, S. C. (1988). Global results concerning bifurcation for Fredholm maps of index zero with a transversality condition. *Nonlinear Analysis: T.M.A., 12*(11), 1137-1148.

Welsh, S. C. (1987). Bifurcation of A-proper mappings without transversality considera- tions. *Proceedings of the Royal Society of Edinburgh, 107A*, 65-74.

Webb, J.R.L., Welsh, S. C. (1986). Topological degree and global bifurcation. *Proceedings of Symposia in Pure Mathematics, 45*(2), 527-531.

Webb, J.R.L., Welsh, S. C. (1985). A proper maps and bifucation theory. *Ordinary and Partial Differential Equations, 1151*, 342-349.

Welsh, S. C. Generalized Topological Degree and Bifurcation Theory. *University of Glasgow*.

6. Book Reviews:

Welsh, S. C. (1992). [Review of the book *Trigonometry for College Students*, by Karl J. Smith]. (vol. 14). The American Mathematical Association of Two-Year Colleges Review.

B. Works Not in Print:

1. Papers Presented at Professional Meetings:

Welsh, S. C., Dundee Conference on Ordinary and Partial Differential Equations, "A Remark on real parameter global bifurcation," University of Dundee, Scotland, United Kingdom. (2000).

Welsh, S. C., Dundee Conference on Ordinary and Partial Differential Equations, "Open mappings in Banach Space," University of Dundee, Scotland, United Kingdom. (1994).

Welsh, S. C., Twelth Dundee Conference on Ordinary and Partial Differential Equations, "A priori bounds and nodal properties for periodic solutions to a class of O.D.E's," University of Dundee, Scotland, United Kingdom. (1992).

Welsh, S. C., Ordinary and Partial Differential Equations, "Existence and uniqueness of I.V.P's. for a class of O.D.E's.," University of Dundee, Scotland, United Kingdom. (1990).

Welsh, S. C., Annual Texas Conference on Differential Equations, "Bifurcation with transversality conditions," Texas A.& M. University, College Station, TX, United States. (1988).

Welsh, S. C., "Global bifurcation for Fredholm maps of index zero," University of New Orleans, New Orleans, LA, United States. (1988).

Welsh, S. C., Ninth Conference on Ordinary and Partial Differential Equations, "Global bifurcation," University of Dundee, Scotland, United Kingdom. (1986).

Welsh, S. C., Eighth Conference on Ordinary and Partial Differential Equations, "A– proper maps and bifurcation theory," University of Dundee, Scotland, United Kingdom. (1984).

2. Invited Talks, Lectures, and Presentations:

Welsh, S. C., The Fourth International Colloquium on Differential Equations, Polvdiv, Bulgaria. (August 18, 1993).

5. Other Works not in Print:

a. Works "submitted" or "under review":

Edited Books:

Saba, S. In S. C. Welsh (Ed.), *A Study in Complex Analysis of One Variable*. Southwest Texas State University.

b. Works "in progress":

Journal Articles:

Welsh, S. C. An application of the Divergence Theorem.

Welsh, S. C. Equivalence of upper and lower limit definitions for real sequences.

Welsh, S. C. Global bifurcation through higher order terms.

Welsh, S. C. Multiple solutions of semilinear elliptical problems in a ball.

Welsh, S. C. The effects of refraction on the equinox.

Welsh, S. C. Which is greater e^? or ?^e.

C. Scholarly / Creative Grants and Contracts:

3. Funded Internal Grants and Contracts:

Welsh, Stewart C. Research Enhancement Grant, Office of Sponsored Programs, Texas State University, $4,500.00. (Funded: 1999). Grant.

Welsh, Stewart C. Research Enhancement Grant, Office of Sponsored Programs, Texas State University, $3,000.00. (Funded: 1995). Grant.

Welsh, Stewart C. Research Enhancement Grant, Office of Sponsored Programs, Texas State University, $3,000.00. (Funded: 1993). Grant.

Welsh, Stewart C. Research Enhancement Grant, Office of Sponsored Programs, Texas State University, $3,000.00. (Funded: 1992). Grant.

D. Scholarly / Creative Fellowships, Awards, Honors:

Award / Honor Recipient: Department–of–Mathematics Research Excellence Award.
1997 - 1998

Fellowship Recipient: Summer Research Fellowship, Southwest Texas State University, School of Science.
1991

IV. SERVICE

A. Institutional

1. University:

Departmental Representative, College Review Group. (2000 - 2017).

Liaison to Department of Developmental Education, Department of Developmental Education. (2012 - 2013).

Member, Outstanding Graduate Student (School of Science). (1991 - 1995).

Member, Outstanding Undergraduate Student (School of Science). (1991 - 1995).

Member, Presidential Upper Level Scholarship. (1991 - 1995).

Member, University Scholars. (1988 - 1995).

Member, Graduate Brochure Committee for Mathematics, Physics and Computer Science. (1991).

3. Department/School:

Advisor, M.Ed. & M.S. (No Concentration) Programs (2019-Present).

Chair, Graduate Committee (2016-2017 & 2018-2020).

Recruitment Committees (Dr. Fillman)). (2019).

Chair, Recruitment Committees (Dr. Wang). (2018).

Chair, Recruitment Committees (Dr. Conrad). (2016).

Strategic Planning Committee (2016).

Member, Budget Committee. (2000 - Present).

Contributor, NSF Texas STEM Rising Stars Brown Bag Lunch series. (2016).

Coordinator, SACS assessment. (2007 - Present).

Member, Scheduling Committee. (2015 - 2016).

University Mentor. (2007 - Present).

Co-Chair, Christina Starkey Ph. D. Dissertation. (2016).

Member, Academic Program Review Committee. (2016).

Chair, Lecturer Rehiring Committee. (2014 - 2016).

Chair, Lecturer Hiring Committee. (2013 - 2016).

Member, College Review Group. (1997 - 2016).

Member, Engineering, Chemistry and Physics coordinating committee. (1925 - 2016).

Member, Research Enhancement Review Committee. (1915 - 2016).

Chair, Merit-Performance and Post-Tenure Review. (2012 - 2015).

Ph. D. Committee. (2012 – 2016, Chair Spring 2016).

Acting Chair, Department of Mathematics. (July 2015).

Chair, Recruitment Committees (Dr. Conrad). (2010).

Chair, Recruitment Committees (Dr. Treinen). (2011).

Chair, Recruitment Committees (Dr. Lee). (2013).

Member, College of Science Personnel. (1997 - 2013).

Chair, Travel Committee. (1995 - 2009).

Member, Merit-Performance and Post-Tenure Review. (2004 - 2006).

Member, Merit-Performance and Post-Tenure Review. (1998 - 2000).

Member, Masters' Degree Oral Examination - Mosbah Dannaoui. (1993).

Recruiter, Recruitment of Teaching Assistants. (1993).

Organizer, Curriculum. (1991 - 1993).

Member, Travel Committee. (1989 - 1993).

Member, Masters' Degree Oral Examination - Robin Wright. (1992).

Member, Masters' Degree Oral Examination - Sounny Slitine. (1992).

Coordinator, Semester Graduate Sequence. (1991).

Member, Masters' Degree Oral Examination - Telma Henry. (1991).

Chair, Travel Committee. (1990 - 1991).

Graduate Advisor, Masters' Degree Thesis Advisor - Salim Saba. (1990 - 1991).

Member, Textbook Committee. (1990 - 1991).

D. Organization Memberships:

The American Mathematical Society.

The Mathematical Association of America.

Who’s Who in the Southwest. (1993).