Curriculum Vitae

Joy D’Andrea, Ph.D

University of South Florida Sarasota-Manatee

College of Sciences and Mathematics

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Education

● Ed.S., Instruction and Curriculum: Instructional Technology Concentration (Expected Spring

2024), USF Tampa.

● Graduate Certificate, Instructional Design: Florida Digital Virtual Educator Concentration

(spring 2017), USF Tampa.

• Ph.D Mathematics (Statistics Concentration), USF Tampa, spring 2016.

– Dissertation: A Statistical Analysis of Hurricanes in the Atlantic Basin and Sinkholes

in Florida.

• M.A. Mathematics, USF Tampa, spring 2011.

– Master’s Thesis: Fundamental Transversals on the Complexes of Polyhedra.

• B.A. Mathematics, USF Tampa, fall 2007.

• A.A. Mathematics, Summa Cum Laude, State College of Florida, spring 2004.

Professional Em

Calculus 2. MAC 2313 Calculus 3, STA 4930 Selected Topics in Statistics – Stats Programming

in R, STA 2023 Elementary Statistics (online

August 2016 - May 2022

Instructor of Mathematics and Statistics/ Unit Chair, USF Sarasota - Manatee.

Courses Assigned: MAC 1147 Precalculus/Trigonometry, MAC 2311 Calculus 1, MAC 2312

Calculus

Prepared student – centered/active learning lectures for all face to face courses. Prepared the

necessary quizzes or tests that would test the student’s knowledge of the concepts presented in

their main lectures. Graded and recorded quizzes, tests, homework, and final grades. Had

regularly scheduled office hours for students to come and ask questions or get assistance.

Offered additional weekend test�̂

supplemental steps to understand MyMathLab strategies. Partnered with other graduate

assistants to write a user manual for the course.

January 2004 – August 2005.

Mathematics Tutor, Academic Resource Center, State College of Florida (Venice).

Assisted students with questions on their homework assignments and class notes. Provided assistance with math - related software for student computer assignments.

June 2003 – August 2005.
Computer Tutor, Academic Resource Center, State College of Florida (Venice). Assisted students with computer related homework questions. Helped students taking Web - page development classes learn HTML language.

January 2003 – May 2004.
Bookstore Clerk, Bookstore Venice Campus, State College of Florida (Venice). Stocked shelves with course textbooks, cash handling duties, made the schedule for part - time students.

April 2000 – May 2002.

Aerobics Instructor / Personal Trainer / Front Desk, Gold’s Gym, Venice, Florida, Taught low and high impact step aerobics with special stretching and abdominal exercises
included. Trained clients to workoum

Scholarships

• Gulf Coast Community Foundation of Venice Scholarship for Arts and Sciences Student ($1200),

Venice FL, summer 2009.

• Gulf Coast Community Foundation of Venice Scholarship for Arts and Sciences Student ($1200),

Venice FL, summer 2008.

• Gulf Coast Community Foundation of Venice Scholarship for Arts and Sciences Student ($900),

Venice FL, summer 2007.

• Gulf Coast Community Foundation of Venice Scholarship for Arts and Sciences Student ($700),

Venice FL, summer 2006.

• Brunch on the Bay Scholarship ($500), USF, Sarasota FL, fall 2005.

Seminar and Colloquia Presentations

1) USFSM STEM CLUB - A Brief Overview of Polyhedra in the Real World, USFSM,

November 2, 2022.

2) 1st Special Colloquium Series for Mathematical Sciences (SCSM), Georgia Southern

University, October 30, 2020. “Latent Storm Factors and Their Indicators.”

3) Mathematics & Computer Science Colloquium (Invited), Florida Southern College,

Lakeland FL. September 7, 2016. "An Extension of Euler's Polyhedron Theorem - An

Enumeration of orbits."

4) Mathematics & Computer Science Colloquium (Invited), Florida Southern College,

Lakeland FL. February 11, 2016. “Exploratory Factor Analysis and Modeling of

Hurricanes in the Atlantic Basin.”

5) Discrete Mathematics Seminar, USF, April 21, 2014. “Coradjacent Edge Fundamental

Transversals.”

6) Discrete Mathematics Seminar, USF, November 25, 2013. “A Survey of a Periodic

Placement Lemma.”

7) Mathematics Teaching Seminar, USF, October 23, 2013. “The Benefit of Teaching

Networking Skills to Mathematics Students.”

8) Discrete Mathematics Seminar, USF, April 23, 2012. “Looking at Kolam Designs.”

9) Discrete Mathematics Seminar, USF, November 28, 2011. “A Re - Visitation of Fruchts

Theorem for the Digraph Factorial.”

10) Discrete Mathematics Seminar, USF, April 26, 2010. “Graph Transversals and

Transversals of Faces.”

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11) Discrete Mathematics Seminar, USF, December 1, 2008. “Representation of algebraic

groups by simple graphs.”

Workshops, Panels & Conference Organization

1) Tech Savvy Conference (presented by AAUW-Bradenton Branch), USF Sarasota –

Manatee, May 13, 2017. “Fluff & Puff: Edible Geometric Shapes (workshop).”

2) Tech Savvy Conference (presented by AAUW-Bradenton Branch), USF Sarasota –

Manatee, June 4, 2016. “Marshmallows, Toothpicks, and Polyhedra (workshop).”

3) MAA 39

t h Annual Suncoast Regional Meeting, December 5, 2014, USF Sarasota –

Manatee, Organizer and host.

4) MAA 38th Annual Suncoast Regional Meeting, December 6, 2013, HCC, Ruskin, FL -

Organizer of ‘Special Sessions on Geometry’ panel.

5) Math meets Chemistry panel. USF Tampa, March 6, 2012.

Confe rence Presentations

1) ICTCM - Pearson Conference. Orlando, FL. “Teaching Transitions Through The New

Normal Transformation”, March 26, 2022.

2) FCTM - Orlando, FL. “ADAPTATION,CREATION AND COLLABORATION DURING

THE COVID CIRCUMSTANCE”, June 2021.

3) Joint Annual Meetings, MAA Florida Section and FTYCMA, Polk State College,

February 22, 2019. “Euler Extension Episode Continued.”

4) EERA Annual Conference, Clearwater FL, February 8, 2018. “A Topic about Teaching

Gen Y Networking Skills.”

5) MAA 42nd Annual Suncoast Regional Meeting, December 1, 2017. “Latent Storm

Factors.”

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6) Forty Eighth Southeastern International Conference on Combinatorics, Graph Theory, and

Computing, F

19) Forty First Southeastern International Conference on Combinatorics, Graph Theory, and

Computing, FAU, Boca Raton FL, March 11, 2010. “Transversal Domains on the CW

Complexes of Polyhedra.”

20) Joint Annual Meetings, MAA Florida Section and FTYCMA, Santa Fe College, February

19, 2010. 6f RrnaepIny/o- ᤡM1 loM1, n, h 3MؔM1Flo݆/ ̄

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Mentored Students

• Katie McClure – USFSM, fall 2016 - Spring 2017. Presented research poster, “Statistical

Analysis of Correlated Factors Associated with Liver Cancer,” at the USFSM Research

Showcase April 2017. Student won third place in the Science & Math category

• Adela Ramos (undergraduate at USF), 2013 - 2014, “Geometric Educational Resources.”

Presented research poster at the USF Undergraduate Research Symposium and Colloquium April 2014.

• Cody Shirah (undergraduate at Polk State College), 2012, ‘Electromagnetism use through

conductors.’ Summer project.

Educational Research %͠

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College),

Statistical & Mathematical Research Interests • Survival Analysis • Logistic Regression • Applied Statistics • Non-Response Analysis • Geometric Group Theory • Mathematical Crystallography • Economic Game Theory • Galois Theory Technical Knowledge • Math Programming Languages: Maple, Python, Latex. •

Professional ServiceoAssociateEditor,UndergraduateJournalofMathematicalModeling,summer2010,fall
2011, summer 2012.
oTextbookReviewer–“TheJoyofFiniteMathematics,”byChrisTsokosandRebeccaWooten, spring 2014.ProfessionalActivities•Member, AMS•Member, MAA (VP- Elect for Site Selection 2017-18)•Member, ASA.•Member, FTYCMA.•Member, FCTM•Member, PI Mu Epsilon, spring 2007 - present.•Member, GAU,Mathematics Department Steward, January2012 - April 2013.
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