Curriculum Vitae

 Walter Wright Mayo

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 EDUCATION

Presently enrolled in M.S. Physics program at Marshall University.

M.S Physical Science, Physics ( Requirements completed, Fall 2014) Marshall U.

M.A. Mathematics Marshall University, Huntington, W.Va. , 2007

Regents B. A. Mathematics Marshall University, Huntington, W. Va. , 2000

Membership: Mathematical Association of America

 Mathematical Honor Society

 American Physical Society

 American Association of Physics Teachers

POSITIONS AND EXPERIENCE

2008 to present Group II Mathematics Instructor, Ohio University Southern

2000 / 2008 Adjunct Mathematics Instructor, Ohio University Southern

1995 / 2000 Ohio University Southern, Tutor on contract

\* provided successful tutoring services for thirty five different subjects.

\* Tutor for the Ohio University Mentor Program.

\*Private Tutor: Science and Mathematics.

\* Provided effective tutoring services to elementary, high school and college students.

\*Designed specific techniques to meet the needs of individual student.

1981 / 1995 MAYO CONSTRUCTION CO, SILVER SPRING, MD.

 Self Employed

\* Provided services for all areas of home maintenance, including plumbing, electrical, appliances, and swimming pools.

1978 / 1981 LITTON BIONETICS, GAITHERSBURG, MD.

 Research Technician

\* Developed techniques for the safe removal of hazardous medical projects materials.

1976 / 1978 ALLIED CHEMICAL CORP, IRONTON, OHIO

 Plant Shift Supervisor

\* Supervised all operations of coke oven battery for the production of coke from coal.

\* Provided leadership and direction for fifteen heavy equipment operators and laborers.

1968 / 1975 ASHLAND OIL REFINING CO, CATTLESBURG, KY

 Pilot Plant Research Technician

\* Construction, operation, maintenance of chemical catalytic reactors.

1964 / 1968 UNITED STATES NAVY, Dental Technician

\* X-ray, Oral hygiene Specialist; HONORABLE DISCHARGE

SPECIAL INTEREST:

CHESS: Member, U.S. Chess Federation

PHOTOGRAPHY: Published Photographer

READING ORGANIZING AND CONDUCTING INDEPENDENT RESEARCH PROJECTS.

**B.A. DEGREE IN MATHEMATICS**

Fall 1998

MTH 427 Advanced Calculus I Dr. John Lancaster A Marshall

Spring 1999

MTH 428 Advanced Calculus II Dr. John Lancaster A Marshall

Fall 1999

MTH 445 Theory of Statistics I Dr. Laura Adkins A Marshall

MTH 450 Modern Algebra I Dr. Debra Denvir B Marshall

Spring 2000

MTH 300 Intro to Higher Mathematics Dr. Curtis Feist A Marshall

MTH 330 Linear Algebra Dr. Stickles B Marshall

MTH 446 Theory of Statistics II Dr. Laura Adkins B Marshall

MTH 480 History of Mathematics Dr. Pupplo-Cody A Marshall

MTH 491 Functional Analysis Dr. Eubanks B Marshall

Summer 2000

MTH 481 Coding Theory Dr. John Drost C

Marshall

MTH 483 Complex Analysis Dr. Pupplo-Cody B Marshall

RBA Mathematics Hrs: 33

**M.A. Mathematics**

Fall 2002

MTH 511 Linear Algebra Dr Terry Quinn A Ohio University

MTH 548 Fund. Concepts of Mod Geometry Dr Mitchell B Marshall

MTH 640 Complex Variables I Dr Pupplo- Cody B Marshall

MTH 690 Special Topics: Combinatorics Dr Drost B Marshall

Spring 2003

MTH 591 Masters Essay, Difference Equations Dr Lawrence B Marshall

MTH 610 Modern Abstract Algebra I Dr Drost B Marshall

MTH 641 Complex Variables II Dr Pupplo-Cody A Marshall

Fall 2003

MTH 650 Real Variables Dr Silver C Marshall

MTH 661 Advanced Statistics Dr Akinsete B Marshall

Spring 2004

MTH 591 Masters Essay, Dynamics, Chaos Dr Oberste-Vorth B Marshall

MTH 651 Real Variables Dr Silver (Retaken 2007, A ) C Marshall

MTH 690 Algebraic Topology Dr Saviliev C Marshall

Fall 2004

MTH 527 Advanced Calculus Dr Oberse-Vorth B Marshall

(MTH 427 Advanced Calculus 1998 Dr Lancaster A Marshall)

MTH 550 Modern Algebra Dr Saviliev A Marshall

Spring 2005

MTH 528 Advanced Calculus Dr Oberse-Vorth C Marshall

(MTH 428 Advanced Calculus 1998 Dr Lancaster A Marshall)

PHY 545 Mathematical Physics Dr Wilson B Marshall

Fall 2005

MTH 543 Numerical Analysis Dr Sarra B Marshall

Summer 2007

MTH 580 Number Theory Dr Drost A Marshall

Fall 2007

MTH 650 Real Variables Dr Aluthge A Marshall

**M.S. DEGREE PHYSICS**, **Marshall University**

Spring 2005

Mathematical Methods of Physics Dr Wilson B

Fall 2011

PHY 320 Modern Physics Lecture Dr Fan A

PHY 521 Modern Phys Lab Dr Fan A

MTH 630 Topology I Dr Mummert A

Spring 2012

PHY 586 Electronics Lecture Dr Oberly B

PHY 514 Electronics Lab Dr Oberly A

PHY 525 Solid State Physics Dr Fan A

Fall 2012

PHY 300 Electricity and Magnetism Dr Nguyen C

PHY 330 Classical Mechanics Dr Richards A

PS 500 Astronomy Lecture Dr Saken B

PS 500 Astronomy Lab Dr Saken B

PS 586 Astronomy Research Dr Saken B

Spring 2013

MTH 616 Advanced Differential Equations, Dr Lawrence B

MTH 632 Advanced Topology Dr Saveliev B

Fall 2013

PHY 308 Thermal Physics Dr Wilson A

Spring 2014

PHY 542 Quantum Mechanics Dr Nguyen B

PHY 686 Cosmology Dr Hamilton B

Fall 2014 and Spring 2015

685 Optics; PHY 505 Optics; MTH 640 Complex Variables ; Math 655 Number Theory.

Fall 2015 Spring 2016 Marshall

PHY 686 Advanced Optics Dr Oberly A

PHY 586 Quantum Theory II Dr Nguyen B

Spring 2017 Marshall

MTH 670 Galois Theory Dr Drost A

Total Hrs: 105

Walter W. Mayo, Southern Campus

**September 2016-January 2018**

**List of Courses Taught**

**Fall 2016-2017**: Math DOO5 (31 students); Math 1300 (17 students); Physics 2001 (23 students); Physics 2001L (23 students); Astronomy 1000 (29 students); Astronomy 1400 (12 students).

**Spring 2016-2017**: Math 1350 (11 students); Math 1200 (32 students); Physics 2001 (1 student); ); Physics 2001L (1 students); Astronomy 1000 (32students); Astronomy 1400 (20 students); Math 1200 (21).

**Summer I**: Math 1200 at Southern Campus (15 students)

**Summer II**: Astronomy 1000 (9 students). Astronomy 1400 (8 students). **Proctorville Point to Point** Astronomy 1000 (10 students) Astronomy 1400 (8 students).

**Fall 2017:** Physics 2001, 2001L, Astronomy 1000, Astronomy 1400, Math 2301, Math 1300.

Volunteer Tutoring for Student Resource Commons.

**Spring 2018:** Physics 2002, 2002L; Math 2302 at **Southern, Chillicothe, Eastern Point to Point,** Astronomy 1000, Astronomy 1400, Math 1200.

**Independent Study**: Physics 1000, Physics 1000L. Math 1350.

**Cumulative Course Evaluation Average**: 4.80

**Innovative Teaching**: I use Blackboard to communicate with students outside of class, to post homework and quizzes, and to record grades and progress. I use computer animation to demonstrate math and science concepts. I use Maplesoft and Mathematica and Smart board.

**Active Learning Techniques**: I am developing Lon-Capa through Athens for the Physics and Astronomy students. I use in-class animations over the web to demonstrate Physics and Astronomy phenomena. Students and I use Astronomy equipment to view celestial events. I have students participate in class experiments in groups and as individuals.

**Professional Development**: Completed requirements for MS Physical Science Degree with majors in Physics and Astronomy; I am still enrolled in post graduate work at Marshall. Marshall is now offering a new M.S. Degree in Physics which started in Spring 2018. I will continue my studies and earn another M.S. So I will have a M.A. in Mathematics, M.S. in Physical Science with a major in Physics and a M.S in Physics. This M.S. in Physics program will offer more 600 and higher level Physics courses.

Spring 2017: Advanced Math: Galois Theory with Dr. Drost. Fall 2017: Advanced Mathematical Physics in Physics Department, Dr. Nguyen, Chairman. Advanced Mathematics: Hilbert’s 10 Problem. Analyze Hilbert’s Paper and learn how to produce a PhD level paper, Dr. Mummert.

**Professional Organizations**:

... I am a member of the United States Chess Federation and a rated tournament player. I am still hoping to start a chess club at Ohio University Southern.

... I am a member of the Mathematical Association of America.

... I am a member of American Physical Society

… I am a member of American Society of Physics Teachers.

... I attend real time online seminars offered by Wolfram Research for instructions in the applications of the software Mathematica.

... I am a contributor of, and participant in, seminars of the Open Courseware project at Massachusetts Institute of Technology.

**Research**: I am currently working on a research project to study the phenomena known as “Quantum Entanglement”. I am still doing lab work at Marshall while I am also enrolled in Advanced Math and Physics classes. The lab work is part of a paper I am doing with Donald Patton, instructor of psychology at Ohio University Southern. I am attempting to demonstrate that consciousness does not “collapse” the wave function.

 **Mentoring**: I continue to serve as a mentor for Chesapeake High School’s Physics Program and Fairland High School’s Physics and Astronomy Program.

I am still working to produce a small circular titled **The Math and Science Inquirer**. The paper will contain math and science quizzes, facts, and a paper written by a professional mathematician, and a selection from a science fiction book I am writing a science fiction book titled **The Pendulum of Time**.

... I **completed** a paper titled **Observations of Some of the Elementary Number Theoretic Properties of the Positive Integers.**