

Mark Joseph Dusenbury

Associate Professor
Department of Aviation
John D. Odegard School of Aerospace Sciences
University of North Dakota
Grand Forks, ND 58202
701.777.5495
dusenbur@aero.und.edu

1. Educational Background

- Ph.D Teaching and Learning.** University of North Dakota, Grand Forks, ND.
- M.S. Educational Leadership.** University of North Dakota, Grand Forks, ND.
- B.S. Aeronautical Studies.** University of North Dakota, Grand Forks, ND.
- A.A. Associates of Art.** Green River College, Auburn, WA.

Certification

College Teaching Certificate (2016)

- Completed the following coursework to earn the certificate:

College Students with Special Needs
The Professoriate
College Teaching
Assessment in Higher Education

2. Professional Experience

- 2020-Present **Graduate Director/Assistant Chair of Online Learning**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.
- Responsibilities of a Graduate Director include scheduling, marketing, and admitting students into UNDs Masters of Science and Aerospace Sciences PhD.
 - Responsibilities of Assistant Chair of Online Learning is to create, manages, and market the Aviation Departments undergraduate online degrees.
- 2015-Present **Associate Professor (Tenured)**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.
- Responsibilities of an Associate Professor include teaching 10-12 credit hours a semester, advising students, holding posted office hours,

participating in committees, and being engaged in creative and scholarly activities.

- Member of the Graduate Faculty

2012-2020 **Assistant Chair of Assessment**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.

- Responsible for the departmental, college, and university assessment to maintain regional and national accreditation.

2011-2015 **Assistant Professor**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.

- Responsibilities of an Assistant Professor include teaching 10-12 credit hours a semester, advising students, holding posted office hours, participating in committees, and being engaged in creative and scholarly activities.

2008-2010 **Academic Coordinator**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.

- The Academic Coordinator is responsible for creating and maintaining the academic schedule for international flight students and faculty.
- Duties include making academic timelines that adhere to contractual requirements, making faculty work schedules, assigning classrooms and class times in coordination with aircraft availability, and ensuring all course times and curriculum requirements are met.
- Additional duties include oversight of the Air China English screening program and tutoring program.

2007-2010 **Lecturer**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.

- Responsibilities include teaching academic classes as assigned by the department and serving on the departmental assessment committee.

2006-2007 **Lead Flight Instructor/Assistant Chief Flight Instructor**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.

- Responsible for line flight instructor oversight at our extension campuses.
- Assist in aircraft delivery and training for Cirrus Design.
- Serve as Assistant Chief Flight Instructor after passing both an oral and flight exam and meeting certain experience requirements set by FAR Part 141.

2004-2006 **First Officer EMB 145**, American Eagle Airlines, Dallas, TX.

- Performed all duties and complied with Part 121 regulations required of a first officer on the EMB 145/140/135 series of aircraft.

2002-2004 **Lead Flight Instructor**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.

- Responsible for line flight instructor oversight at our extension campuses.

- Assist in aircraft delivery and training for Cirrus Design.
- 2001-2002 **Flight Instructor**, Department of Aviation, John D. Odegard School of Aerospace Sciences, University of North Dakota, Grand Forks, ND.
- Provide Part 141 flight instruction for private, instrument, commercial, and flight instructor certificates.
 - Serve as designated Part 141 check airman
- 2000 **Flight Instructor**, Grand Forks Flight Support, Grand Forks, ND.
- Provide Part 61 instruction to Private and Commercial Pilot students.
 - Teach FAR Part 61 Private Pilot ground school.
- 1995-2003 **Landing Support Specialist**, United States Marine Corps Reserves.
- 2.5 years active reserve, 5.5 years on Inactive Ready Reserve (IRR).
 - Provided secure supply lines for ships, trains, and helicopters.

Licensure:

Air Transport Pilot-Airplane Single-Engine Land and Sea and Multi-Engine Land Instrument Airplane
Type Rating - CE525
Certified Flight Instructor-Airplane Single and Multi-Engine Instrument Airplane

3. Instructional Service

Undergraduate Course Taught:

Aviation 102 (5 cr)	Introduction to Aviation (Private Pilot Certification)
Aviation 221 (3 cr)	Basic Attitude Instrument Flying
Aviation 222 (3 cr)	IFR Regulations and Procedures
Aviation 250 (2 cr)	Human Factors
Aviation 320 (2cr)	Airline Career Planning
Aviation 323 (3 cr)	Aerodynamics for Airplanes
Aviation 325 (2 cr)	Multi-Engine Systems and Procedures
Aviation 399 (3 cr)	Special Topics: VFR and IFR Technical Aviation Communications
Aviation 430 (2 cr)	Crew Resource Management
Aviation 485 (3 cr)	Senior Capstone

Graduate Courses Taught:

Aviation 503 (3 cr)	Statistics
Aviation 504 (3 cr)	Research Methods
Aviation 506 (3 cr)	Quantitative Research Methods

Graduate Committees:

Dissertation/Chair

Tiffany Day. (In Progress)

Dissertation/Committee

Alex Nikle, Career Change Theory: An Analysis of Second Career Pilots Pursuing the Aviation Profession. Completed Summer 2019.

Robert Foster. (In Progress).

Shayne Daku. (In Progress).

Tyler Linder (In Progress).

Terry Rector (In Progress).

Thesis/Chair

Ray Gardner, The Effects of SMS Implementation on Safety Culture within Helicopter Emergency Medical Services. Completed Spring 2017.

Michael Thompson, Pilot Awareness and Preventative Measures of Ultraviolet Radiation Effects at Altitude. Completed Fall, 2017.

Aaron Dahl, A Pilot Study on Safety Implications of the Self Preservation Theory and Risk Perception in Unmanned Aircraft Operations. Completed Spring 2018.

Brady Bjerke, A Regional Airline Study: The Impact of Operational Volume on Performance at Capacity Constrained Airports. Completed Summer 2018.

Jim Cooley, United States Coast Guard Aviation Safety: Relationship Between the Safety Survey and the Extent of Hazard Reporting. Completed Spring 2019.

Ryan Leadens, Pilot Perception of Automation Use: A General Assessment. Completed Spring 2020.

Mark Dutki (Independent Study), Next Generation Pilots, Advanced Cockpit Technology, and Pilot Attention. Completed Spring 2020.

Thesis/Member

Andrew Kleinfehn, Regional Airline Pilot Commute: How Commuting by Air Effects Pilots' Satisfaction with Life. Completed Fall, 2016.

Shelby Balogh, Use of FOQA Data to Estimate the Probability of Vehicle Upset or Loss of Control In-Flight. Completed Spring, 2017.

Tim Wollmuth, A Survey Measuring the Efficacy of Duty and Rest Guidelines in Business Aviation Operations. Completed Summer 2017.

Special Air China Turbine Series:

Aviation 708	Crew Resource Management
Aviation 709	High Altitude Operations
Aviation 710	King Air Systems
Aviation 711	Airline Operations
Aviation 712	Air Transport Pilot Ground Certification

Usual semester teaching load = 9 to 12 credits

Advisees (Undergraduate)

2011 – 44 Advisees
2012 – 42 Advisees
2013 – 50 Advisees
2014 – 50 Advisees
2015 – 40 Advisees
2016 – 40 Advisees
2017 – 43 Advisees
2018 – 45 Advisees

Curriculum Development Activities:

FAA Part 141-Pilot School Training Course Outline Approvals

- Developed a new Part 141 Air Transport Pilot course that was approved and implemented in fall 2010.
- Assisted in developing a new FAR Part 141 High Performance Course that was also approved by the Civil Aviation Authority of China (CAAC) and implemented in fall of 2008.
- Rewriting Aviation 325 academic flight course for contract students fall 2010
- Rewriting Aviation 221 academic flight course fall 2012.

Experiential Learning Activities

- Assisted in developing an aviation speech language manual that is used by international aviation students working on speech production and clarity.

Alternate Reality Game

- Co-developed an ARG for Aviation 100 students about departmental, college, and university resources.

Led Program Reviews in:

Unmanned Aircraft Systems Program Review
Air Traffic Management Program Review
Commercial Aviation Program Review

Aviation Technology Program Review
Aviation and Airport Management Program Review

Aviation Safety and Operations

- Led development and creation of new Aviation Safety and Operations Degree Program.

4. Service

University of North Dakota

UND Senate (2019-2021)
UND Senate Executive Committee (2019-2021)
UND Special Review Committee (2019-2020)
UND Virtual Online Learning Team (2017-2018)
High Impact Capstone Course Committee (Spring 2018)
Faculty Handbook Committee, 2016-2019

- Chair 2018-2019

Intercollegiate Athletics Committee, 2011-2014

- Chair 2013-2014

Alice T. Clark Mentoring Program, 2011-2012
Alice T. Clark Mentor, 2014-2015

John D. Odegard School of Aerospace Sciences, Department of Aviation
Assistant Chair of Assessment, 2012-Present
Curriculum Committee, 2012-2014
Assessment Committee, 2008-present
New Faculty Search Committee, 2007-2011
Academic Coordinator, 2008-2011
Professionalism Committee, 2010-2011
Scholarship Committee, 2011-2012
Founding and Current Faculty Advisor, 2011-2017

Professional Associations

Aviation Accreditation Board International, 2011-Present

- Committee Chair – Technology Based Education Committee, 2014-2017
- Accreditation Committee (Nominated) – 2016-Present
- Board of Trustees (Nominated, Vote) – 2016-Present
- Visiting team member and chair

Community

Sunflake Soccer Coach, 2010-2014, 2015-Present
Community Development Block Grant (CDBG) advisory panel member, 2010-2012
PAC Member Committee, 2010-2012
Volunteer for Feed My Starving Children, 2013

5. Publications

Textbooks

Dusenbury, M., Ullrich, G.M. (2012) *Aerodynamics*. Kendall Hunt Publishing Company. Dubuque, IA. ISBN 978-0-7575-9932-3.

- 50/50 Co-Authored

Dusenbury, M., Daku, S., Laux, R. (2015) *Multi Engine Pilot*. Aviation Supplies and Academics. New Castle, WA. ISBN 978-1-61954-266-2.

- Lead author, 1/3 of the writing, Final Editing.

Dusenbury, M, Ullrich, G.M., Balogh, S. (2016) *Aerodynamics for Aviators*. Aviation Supplies and Academics. New Castle, WA. 978-1-61954-333-1.

- Lead author, one-third of the writing, Final Editing.
- Second edition to “Aerodynamics”, retitled, complete rewrite, and addition of high altitude aerodynamics section.

Dusenbury, M., Daku, S. (2019) *Air Transport Pilot*. Aviation Supplies and Academics. New Castle, WA. 978-1-61954-697-4.

- 50/50 Co-Authored

Journal Articles

Juried/Refereed

Bjerke, B, Dusenbury, M. (2013). *Predictive power of English testing: training international flight students*. The Journal of Aviation Education and Research, 23 (1), 13-22.

Wilson, N.D., Basile, E., Dusenbury, M. (2016). Funding Changes from the Department of Veterans Affairs: Measuring the Impact on Undergraduate Flight Student Career and Academic Goals. *Collegiate Aviation Review – International*. (Accepted, pending publication).

Karboviak, K., Clachar, S., Desell, T., Dusenbury, M., Hedrick, W., Higgins, J., Walberg, J., & Wild, B. (2018). Classifying Aircraft Approach Type in the National General Aviation Flight Information Database. In Y. Shi, H. Fu, Y. Tian, V. V. Krzhizhanovskaya, M. H. Lees, J. Dongarra, & P. M. A. Sloot (Eds.), *Computational Science – ICCS 2018* (pp. 456–469). Springer International Publishing. https://doi.org/10.1007/978-3-319-93698-7_35

Dusenbury, M., Olson, M. (2019). The Impact of Flipped Learning on Student Academic Performance and Perceptions. *Collegiate Aviation Review*, 37(1), 19-44.

JAEER Journal Reviewer (2016-Present)

- Review, provide feedback, and recommendations to the journal editors.

Dissertation

Dusenbury, M.J. (2016). The effects of flipped learning on critical thinking disposition among Undergraduate college students (Doctoral Dissertation). ProQuest Dissertation Publishing.

Federal Aviation Administration Sponsored Reviewed and Approved Publications

Dusenbury, M., & Roesler, J. (2010) *Air Transport Pilot Ground Certification Course: Edition 1*. Grand Forks: UND Aerospace Foundation.

- 75 percent of the work

Dusenbury, M., Bridewell, J., Laux, R., Daku, S. (2012) *Commercial Instrument Pilot Airplane – SMEL: Edition 12*. Grand Forks: UND Aerospace Foundation.

- 25 percent of the work

Other UND Aerospace Published and Copyrighted Documents

Dusenbury, M., & Laux, R. (2009) *King Air Systems Study Guide: Edition 1*. Grand Forks: UND Aerospace Foundation.

- 50 percent of the work

6. Professional Presentations

National/International

Dusenbury, M., Wild, B. (2019). National General Aviation Flight Information Database 2.0. Co-Presented at General Aviation InfoShare October 2019 Conference, Memphis, Tennessee.

Dusenbury, M., Wild, B. (2019). National General Aviation Flight Information Database 2.0. Co-Presented at University Aviation Association October 2019 Conference, Memphis, Tennessee.

Dusenbury, M. (2019). The Impact of Flipped Learning on Student Academic Performance and Perceptions. Presented at University Aviation Association October 2019 Conference, Memphis, Tennessee.

Dusenbury, M., Wild, B. (2019). National General Aviation Flight Information Database 2.0. Co-Presented at InfoShare Spring 2019 Conference, Dallas, Texas.

Dusenbury, M. (2017). Online Learning in Higher Education. Co-presented at AABInternational 2017 Summer conference.

Dusenbury, M. (2016). National General Aviation Flight Information Database. Presented at the AABInternational 2016 winter conference.

Dusenbury, M. (2016). Program Review and Evaluation. Presented at the AABInternational 2016 winter conference.

Dusenbury, M. (2015). *Flipping the Classroom: Changing the way we Approach Teaching and Learning*. Presented at the AABInternational 2015 winter conference.

Dusenbury, M. (2015). *Electronic Device Policies at FAR 141 Schools*. Presented at the AABInternational 2015 summer conference.

Dusenbury, M. (2014). *Safety Management Systems: An Institutions Experience*. Presented at the AABInternational 2014 summer conference.

Dusenbury, M. (2014). *Learning Analytics: How to Leverage Technology to Engage Faculty*. Presented at the AABInternational 2014 summer conference.

Dusenbury, M., Bjerke, B. (2013). *Assessments and Culminating Experiences*. Co-presented at the AABInternational 2013 winter conference.

Regional Audiences

Dusenbury, M. (March, 2010). *The Danger of Runway Incursions*. Presented in conjunction with the Federal Aviation Administration Safety Team in Grand Forks, ND.

Dusenbury, M. (February, 2011). *Be Prepared, Don't be Surprised*. Presented in conjunction with the Federal Aviation Administration Safety Team in Grand Forks, ND.

Dusenbury, M. (February 2012). *UND Safety Meeting*. Presented in conjunction with the Federal Aviation Administration Safety Team in Grand Forks, ND.

Local Audiences

Dusenbury, M. (June, 2017). *Teaching with Technology Workshop*. Presented active learning and student engagement strategies to UND Faculty and Staff.

7. Grants and Contracts

Submitted

Dusenbury, Mark (Co-Principal), Martin, Leslie (Co-Principal), "ASDE-X, ADS-B, FDM, and Radar Analysis," Sponsored by Center for General Aviation Research, Federal, \$125,000.

Dusenbury, Mark (Co-Principal), Martin, Leslie (Co-Principal), "Flight Planning Probability Study" Sponsored by Center for General Aviation Research, Federal, \$84,160.

Dusenbury, Mark (Co-Principal), "ADS-B STC Bell 206". Sponsored by Center for General Aviation Research, Federal, \$255,000.

Dusenbury, Mark (Co-Principal), Carlson, Craig (Co-Principal), "Reporting a List of Possible Learning Taxonomies Applicable to FAA Training. Sponsored by AERIS (COE), Federal, \$70,714.

Dusenbury, Mark, Wilson, Nick, Martin Leslie. Flipped Learning. Summer Instructional Development Grant. Sponsored by the University of North Dakota, 12,000 (4,000 each). (Summer 2015).

Dusenbury, Mark, Daku, Shayne. Aviation 325 and 480 Flipped Learning. Summer Instructional Development Grant. Sponsored by the University of North Dakota, 8,000 (4,000 each). (Summer 2016).

Dusenbury, Mark, Wild, B., Desell, T., Dusenbury, M., Higgins, J., "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$89,409.00. (March 1, 2017 - July 31, 2017).

Dusenbury, Mark, Wild, Brandon, Desell, Travis, Higgins, Jim, "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$148,745.00 (August 15, 2017 - July 31, 2018).

Dusenbury, Mark, Wild, Brandon, Desell, Travis, Higgins, Jim, "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$176,938.00 (August 15, 2018 - July 31, 2019).

Dusenbury, Mark, Wild, Brandon, Desell, Travis, Higgins, Jim, "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$227,596.00 (August 1, 2019 - July 31, 2020).

Funded

Dusenbury, Mark (Co-Principal), Martin, Leslie (Co-Principal), "ASDE-X, ADS-B, FDM, and Radar Analysis," Sponsored by Center for General Aviation Research, Federal, \$125,000, Funded. (January 01, 2012 – March 30, 2013).

Dusenbury, Mark (Co-Principal), Martin, Leslie (Co-Principal), "Flight Planning Probability Study" Sponsored by Center for General Aviation Research, Federal, \$84,160. Funded. (March 1, 2013-December 31, 2013).

Dusenbury, Mark (Co-Principal), "ADS-B STC Bell 206". Sponsored by Center for General Aviation Research, Federal, \$255,000. Funded. (January 2013-September 2013).

Dusenbury, Mark, Wilson, Nick, Martin Leslie. Flipped Learning. Summer Instructional Development Grant. Sponsored by the University of North Dakota, 12,000 (4,000 each). (Summer 2015).

Dusenbury, Mark, Daku, Shayne. Aviation 325 and 480 Flipped Learning. Summer Instructional Development Grant. Sponsored by the University of North Dakota, 8,000 (4,000 each). (Summer 2016).

Dusenbury, Mark, Wild, B., Desell, T., Dusenbury, M., Higgins, J., "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$89,409.00. (March 1, 2017 - July 31, 2017).

Dusenbury, Mark, Wild, Brandon, Desell, Travis, Higgins, Jim, "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$148,745.00 (August 15, 2017 - July 31, 2018).

Dusenbury, Mark, Wild, Brandon, Desell, Travis, Higgins, Jim, "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$176,938.00 (August 15, 2018 - July 31, 2019).

Dusenbury, Mark, Wild, Brandon, Desell, Travis, Higgins, Jim, "National General Aviation Flight Information Database (NGAFID)," Sponsored by MITRE / FAA, \$227,596.00 (August 1, 2019 - July 31, 2020).

8. Professional Associations, Education, and Consultant Activities

Professional Associations

Aircraft Owners and Pilots Association (AOPA) – 2003-2010
Airline Pilots Association (ALPA) – 2004-2006
Aviation Accreditation Board International (AABI) – 2012-Present
American Statistical Society (ASA) – January 2014-January 2016

9. Honors/Awards

Master Instructor Designation. November 2008.
Master Instructor Designation. November 2010.
UND Aerospace Airmanship Award, September 2001
UND Aerospace Instructor of the Month, September 2001
Meritorious Mast, USMC

Revised/Updated 8/19/2020