Assessment Cycle 2022-23 (Academic Programs)

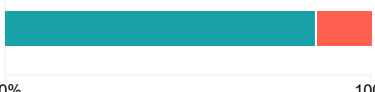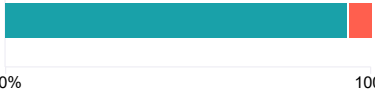Unmanned Aircraft System Operations BS

Mission

The primary mission of the Unmanned Aircraft System program is to serve the Department of Aviation, the John D. Odegard School of Aerospace Sciences, the University of North Dakota, the North Dakota State University System, and the State of North Dakota. The secondary mission of the UAS program is to propose and engage in UAS research, education, and training endeavors to enhance opportunities for students and faculty, and to ensure a perpetual state-of-the-art UAS program.
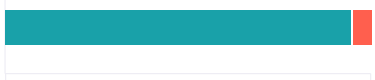
Academic Year 2022-23

Unmanned Aircraft System Operations BS Learning Outcomes

UAS SLO #1 MET

Be able to demonstrate crew performance and coordination in UAS operational environments while applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.

MEASURES	RESULTS	ACTIONS
238 Block 1 Exam Written exam Direct - Exam (Course) *UAS Operator Certification: AVIT 238* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	**MET** 238 Block 1 Exam ■ Met ■ Not Met 0%　　　　　　　　100% Met:　　　　　85% Not Met:　　　15% Met Total:　　　85% Not Met Total:　15% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
337 Flight Lab Score Flight training score Direct - Other *Survey of Unmanned Aircraft Systems: AVIT 337* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	**MET** 337 Flight Lab Score ■ Met ■ Not Met 0%　　　　　　　　100% Met:　　　　　94% Not Met:　　　6% Met Total:　　　94% Not Met Total:　6% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan

438 Flight Lab Score Flight training score Direct - Other *UAS Operations: AVIT 438* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	**MET** 438 Flight Lab Score ■ Met ■ Not Met 0% 100% Met: 95% Not Met: 5% Met Total: 95% Not Met Total: 5% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan

General Outcome Actions

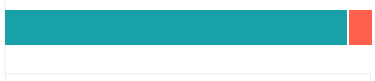| ACTIONS |
|---|
| **Maintain Assessment Strategy**

Continue with current assessment plan |

Conclusion

Students averaged 80 percent on the identified assignments across all the course(s) listed.

UAS SLO #2 MET

Be able to demonstrate airmanship commensurate with applicable professional licensure.

MEASURES	RESULTS	ACTIONS
126 Flight Lab Score Flight training score Direct - Other *Introduction to UAS Operations: AVIT 126* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	**MET** 126 Flight Lab Score ■ Met ■ Not Met 0% 100% Met: 84% Not Met: 16% Met Total: 84% Not Met Total: 16% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan

238 Flight Lab Score

Flight training score

Direct - Other

UAS Operator Certification: AVIT 238

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

238 Flight Lab Score

■ Met ■ Not Met

0%   100%

Met:	94%
Not Met:	6%
Met Total:	94%
Not Met Total:	6%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

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337 Flight Lab Score

Flight training score

Direct - Other

Survey of Unmanned Aircraft Systems: AVIT 337

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

337 Flight Lab Score

■ Met ■ Not Met

0%   100%

Met:	94%
Not Met:	6%
Met Total:	94%
Not Met Total:	6%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

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419 Flight Lab Score

Flight training score

Direct - Other

sUAS Commercial Operations: AVIT 419

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

419 Flight Lab Score

■ Met

0%   100%

Values are not shown when too close to each other. Click or use arrow keys to see details.

Met:	100%
Met Total:	100%
Not Met Total:	

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

438 Flight Lab Score

Flight training score

Direct - Other

UAS Operations: AVIT 438

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

438 Flight Lab Score

■ Met   ■ Not Met

0%   100%

Met:	95%
Not Met:	5%
Met Total:	95%
Not Met Total:	5%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

General Outcome Actions
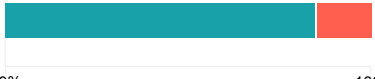
ACTIONS
Maintain Assessment Strategy Continue with current assessment plan

Conclusion

Students averaged 80 percent on the identified assignments across all the course(s) listed.

UAS SLO #3   MET

Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.

MEASURES	RESULTS	ACTIONS
126 Final Exam Average of all block exams Direct - Exam (Course) *Introduction to UAS Operations: AVIT 126* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 126 Final Exam ■ Met ■ Not Met 0% 100% Met: 85% Not Met: 15% Met Total: 85% Not Met Total: 15% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan

238 Group Project Application for 107 waiver Direct - Project *UAS Operator Certification: AVIT 238* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 238 Group Project ■ Met ■ Not Met 0% 100% Met: 84% Not Met: 16% Met Total: 84% Not Met Total: 16% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
240 Combined Average 240 Combined Average of Homework, Quizzes, and Exams Direct - Other *UAS Enabling Concepts: AVIT 240* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 240 Combined Average ■ Met ■ Not Met 0% 100% Met: 90% Not Met: 10% Met Total: 90% Not Met Total: 10% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
331 Project Build Build a UAV Direct - Project *UAS Flight Systems: AVIT 331* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 331 Project Build ■ Met ■ Not Met 0% 100% Met: 95% Not Met: 5% Met Total: 95% Not Met Total: 5% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
337 Block 1 Exam	MET	**Maintain Assessment Strategy**

Unmanned Aircraft System Operations BS

Written exam Direct - Exam (Course) *Survey of Unmanned Aircraft Systems: AVIT 337* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	337 Block 1 Exam ■ Met ■ Not Met 0% ——— 100% Met: 90% Not Met: 10% Met Total: 90% Not Met Total: 10% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	Continue with current assessment plan
337 Block 2 Exam Written exam Direct - Exam (Course) *Survey of Unmanned Aircraft Systems: AVIT 337* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 337 Block 2 Exam ■ Met ■ Not Met 0% ——— 100% Met: 97% Not Met: 3% Met Total: 97% Not Met Total: 3% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
419 Flight Lab Score Flight training score Direct - Other *sUAS Commercial Operations: AVIT 419* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 419 Flight Lab Score ■ Met 0% ——— 100% *Values are not shown when too close to each other.* *Click or use arrow keys to see details.* Met: 100% Met Total: 100% Not Met Total: **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
438 Flight Lab Score	MET 438 Flight Lab Score	**Maintain Assessment Strategy**

Unmanned Aircraft System Operations BS

Flight training score Direct - Other *UAS Operations: AVIT 438* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	■ Met ■ Not Met 0% 100% Met: 95% Not Met: 5% Met Total: 95% Not Met Total: 5% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	Continue with current assessment plan

General Outcome Actions

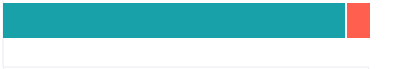| ACTIONS |
|---|
| **Maintain Assessment Strategy**
Continue with current assessment plan |

Conclusion

Students averaged 80 percent on the identified assignments across all the course(s) listed.

UAS SLO #4   MET

Develop a working knowledge of technologies and their application in UAS operations.

MEASURES	RESULTS	ACTIONS
239 Block Exams Average on course exams Direct - Exam (Course) *Autonomous Fundamentals: AVIT 239* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	MET 239 Block Exams ■ Met ■ Not Met 0% 100% Met: 90% Not Met: 10% Met Total: 90% Not Met Total: 10% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
240 Block Exams Average on course exams	MET 240 Block Exams ■ Met ■ Not Met	**Maintain Assessment Strategy** Continue with current assessment plan

Direct - Exam (Course)

UAS Enabling Concepts: AVIT 240

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

Met:	97%
Not Met:	3%
Met Total:	97%
Not Met Total:	3%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

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337 Flight Lab Score

Flight training score

Direct - Other

Survey of Unmanned Aircraft Systems: AVIT 337

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

337 Flight Lab Score

■ Met ■ Not Met

Met:	94%
Not Met:	6%
Met Total:	94%
Not Met Total:	6%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

General Outcome Actions

ACTIONS
Maintain Assessment Strategy Continue with current assessment plan

Conclusion

Students averaged 80 percent on the identified assignments across all the course(s) listed.

UAS SLO #5 MET

Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS operations.

MEASURES	RESULTS	ACTIONS
126 Block Exams Average on course exams Direct - Exam (Course) *Introduction to UAS Operations: AVIT 126*	MET 126 Block Exams ■ Met ■ Not Met	**Maintain Assessment Strategy** Continue with current assessment plan

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

0%   100%

Met:	85%
Not Met:	15%
Met Total:	85%
Not Met Total:	15%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

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239 Block Exams

Average on course exams

Direct - Exam (Course)

Autonomous Fundamentals: AVIT 239

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

239 Block Exams

■ Met   ■ Not Met

0%   100%

Met:	94%
Not Met:	6%
Met Total:	94%
Not Met Total:	6%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

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333 ITAR Compliance TEst

ITAR Compliance Test

Direct - Exam (Course)

UAS Remote Sensing: AVIT 333

Target

Students will average 80 percent on the identified assignments across all the course(s) listed.

MET

333 ITAR Compliance TEst

■ Met

0%   100%

Values are not shown when too close to each other. Click or use arrow keys to see details.

Met:	100%
Met Total:	100%
Not Met Total:	

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.

Maintain Assessment Strategy

Continue with current assessment plan

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403 Module Quiz

Written quiz

Direct - Quiz (Course)

Aerospace Law: AVIT 403

MET

403 Module Quiz

■ Met   ■ Not Met

Maintain Assessment Strategy

Continue with current assessment plan

Target		
Students will average 80 percent on the identified assignments across all the course(s) listed.	0% 100% Met: 98% Not Met: 2% Met Total: 98% Not Met Total: 2% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	

| **450 Final Paper**

Student paper on a topic related to current course work.

Direct - Assignment

Counter UAS Applications: AVIT 450

Target

Students will average 80 percent on the identified assignments across all the course(s) listed. | **MET**

450 Final Paper
■ Met   ■ Not Met

0%   100%

Met: 96%
Not Met: 4%

Met Total: 96%
Not Met Total: 4%

Analysis

Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score. | **Maintain Assessment Strategy**

Continue with current assessment plan |

General Outcome Actions

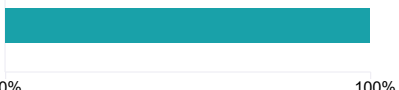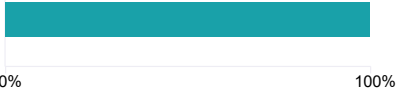| ACTIONS |
|---|
| **Maintain Assessment Strategy**

Continue with current assessment plan |

Conclusion

Students averaged 80 percent on the identified assignments across all the course(s) listed.

UAS SLO #6   MET

Be familiar with computer technologies and processes associated with UAS operations to include programming, data storage and security, and networking.

MEASURES	RESULTS	ACTIONS
239 Block Exams Average on course exams Direct - Exam (Course) *Autonomous Fundamentals: AVIT 239* **Target**	**MET** 239 Block Exams ■ Met ■ Not Met 0% 100% Met: 82%	**Maintain Assessment Strategy** Continue with current assessment plan

Unmanned Aircraft System Operations BS

Students will average 80 percent on the identified assignments across all the course(s) listed.	Not Met: 18% Met Total: 82% Not Met Total: 18% **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	
333 Processing of Imagery Successful processing of UAS data Direct - Assignment *UAS Remote Sensing: AVIT 333* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	**MET** 333 Processing of Imagery ■ Met 0%　　　　　100% *Values are not shown when too close to each other. Click or use arrow keys to see details.* Met: 100% Met Total: 100% Not Met Total: **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan
419 Flight Lab Score Flight training score Direct - Other *sUAS Commercial Operations: AVIT 419* **Target** Students will average 80 percent on the identified assignments across all the course(s) listed.	**MET** 419 Flight Lab Score ■ Met 0%　　　　　100% *Values are not shown when too close to each other. Click or use arrow keys to see details.* Met: 100% Met Total: 100% Not Met Total: **Analysis** Students averaged 80 percent on the identified assignments across all the course(s) listed. Met total represents average assignment score.	**Maintain Assessment Strategy** Continue with current assessment plan

General Outcome Actions

ACTIONS
Maintain Assessment Strategy Continue with current assessment plan

Conclusion

Students averaged 80 percent on the identified assignments across all the course(s) listed.