

Attachment 3
New and Drop curricula proposals

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Technology and Aviation
Department of Aviation

DEGREE PROGRAM CHANGES:

This proposed consolidation of the degree programs in the Aviation Department would reduce the number of programs offered by the department to three certificate programs, two associate degrees and one baccalaureate degree. The new baccalaureate degree will encompass multiple options, as listed below:

DROP: Bachelor of Science Degree Programs in:

- Aeronautical Technology Aviation Maintenance (AVMB)
- Aeronautical Technology Professional Pilot (PPILB)

ADD: Bachelor of Science Degree Program in:

- Aeronautical Technology (BATN)
with options in:
 - Air Traffic Control Management (BATN-ATC)
 - Avionics Systems and Management (BATN-AVIO)
 - Airport Management (BATN-APMG)
 - Aviation Maintenance Management (BATN-AMAP)
 - Professional Pilot (BATN-PPILB)
 - Unmanned Aerial Systems (BATN-UAS)

RATIONALE: This action is part of a comprehensive proposal to consolidate the degree programs in the Aviation Department into one bachelor's degree program, as described in this document.

I. Basic Program Information- Degree Consolidation Proposal

A.

1. Proposing Institution: Aviation Department, College of Technology and Aviation, Kansas State University at Salina.
2. Title of Proposed Program: Aeronautical Technology
3. Degree to be Offered: Bachelor of Science
4. Anticipated Date of Implementation: Fall 2011
5. Responsible Department: Aviation
6. Proposed CIP Code: 49.0101 – Aeronautics/Aviation/Aerospace Science and Technology, General- a program that focuses on the general study of aviation and the aviation industry, including in-flight and ground support operations. Includes instruction in the technical, business, and general aspects of air transportation systems.

B. Program Proposal Narrative

Program Need and Student Characteristics: This consolidation initiative is being undertaken for two basic reasons; a) increased efficiency and b) increased technical career relevance for students. Several similarities exist among the two current department baccalaureate degree curricula, indicating these programs could be combined into a structure consisting of a common curriculum with technical options. The proposed degree program contains threads of emphasis in mathematics, communications, science, business and aviation that support multiple program options. The proposed consolidation will encourage larger and more appropriate class sizes, will reduce duplication and overlap of course content, and will encourage better utilization of faculty, laboratory space, and other resources. In addition to the combination of undergraduate degree programs, this proposal may result in the eventual dissolution of the recent certificate programs in the areas of Air Traffic Control, Airport Management, Airframe and Powerplant and Unmanned Aerial Systems (UAS) as these options will fill that existing need.

Further, this proposal is in response to a call from students, industry and our external constituencies to broaden our reach into wider career fields in the field of aviation. This proposed direction was unanimously approved by the aviation advisory board in the April 2010 meeting.

While our existing degree programs have served us well for many years, we have, in effect, been limiting the career training opportunities of our students wanting to work in the field of aviation to two areas; a) being an aircraft pilot, or b) being an aircraft mechanic. It is fortuitous that our two existing degrees provide excellent foundational core courses in aeronautics necessary for a variety of other aviation career fields.

An added benefit of this consolidation would be the ability to quickly respond to the needs of a rapidly changing industry given the industry-driven, technical focus of our department. Program options can be added with relative ease which will help our department respond in a timely manner to industry needs for curricula focusing on emerging fields of technology.

By restructuring the baccalaureate degrees into a single degree, the Aviation Department can preclude potential concerns about low enrollment numbers and graduation rates in a given degree program which may arise in the future should enrollments decline however this proposal provides a robust structure and great incentive for future enrollment growth. It should also be noted that our two existing bachelor's programs, AVMB and PPILB, both confer an

undergraduate degree in “Aeronautical Technology”, thus, in essence, our department is already the custodian of one common degree with two options which is the formalized proposal contained herein (with added options).

It is also important to point out that our undergraduate degree in professional flight, PPILB- our largest degree program, remains largely unchanged with the exception of some minor course modifications already planned. This consolidation also presents an opportunity to mend a glaring deficiency in our undergraduate degree program in aviation maintenance technology - AVMB. Currently under this plan of study, no general education courses are taken by students until year three of their study, to include any Math or English. This often presents challenges in that these basic skills, so necessary for students to persist in college, are lacking in our third-year students which can cause them to be underprepared academically for success in much of their other coursework. This proposal provides a solution to that situation. Further, as we pursue accreditation in the future for our proposed Aviation Maintenance Management degree, this proposed program moves us closer to those requirements.

1. Centrality to the mission of Kansas State University: Given that this is a consolidation of two existing degrees into one degree and the fact that the proposed options remain within the area of technical aviation education and training, the centrality to the mission of Kansas State University of preparing students for professional employment remains unchanged over what is currently in place.
2. Student Demand for the proposed program: Recent student surveys (2008) indicated a desire for the department to broaden the opportunities to study in the field of aviation and the degree options included in this proposal were the ones indicated in the surveys with the exception of the avionics option, demand for which was demonstrated in a separate survey of potential employers (2009). Due to the fact that this is a degree consolidation, and students who desire no change in their existing degree program will see little to no change, demand for this new program will, at a minimum, remain unchanged, and, as indicated in the surveys, will likely increase.
3. Demand for proposed program graduates: In late 2009 the secretary general of the International Civil Aviation Organization, Raymond Benjamin cited the shortage of skilled workers in the aviation industry as one of the global aviation industry’s biggest challenges. Numerous articles in recent months, as the economy has improved, have echoed this same sentiment. In June of this year Cessna Aircraft Company CEO Jack Pelton mentioned the coming shortage of pilots (and subsequently other aviation personnel) as one of the industry’s largest threats. All sources indicate that as demand for air travel improves, and the pilot supply dwindles (new pilot training starts are down 15% over the last decade and new mechanic starts are down 40%), aviation is a wide-open career field in the coming years.
4. Comparative Advantages: Our existing degree program has been, and will likely continue to be, the only baccalaureate degree producing aviation program at K-State and within the State of Kansas which is why aviation education makes sense at this location. We know of no other KBOR institution which would be able to jointly offer this degree program or compete with this program. Most surrounding states have at least one aviation undergraduate program (Oklahoma has 3 non-profit programs) which primarily focus on pilot training and aviation management. Two other universities in surrounding states have the Air Traffic Control degree (stand-alone), Metropolitan State College - Denver, and Oklahoma University. Our mix of options branching from one common core is unique in this region.
5. Student Characteristics: In that this is a consolidation of an existing degree the student

characteristics are unlikely to experience any change other than bringing in students with a greater diversity of career interests. The overall diversity of our student population is likely to increase given that the traditional financial barriers to aviation flight education will be lowered. It is a fact that our existing professional pilot degree program, though affordable by comparative standards, remains one of the most expensive undergraduate degree programs offered within the KBOR system out of necessity. This remains a barrier for many students who desire to study aviation. Thus, *unless* one of limited financial means has an interest in being an aircraft mechanic, aviation education at the undergraduate level remains a challenge in the State of Kansas under the existing structure. The interaction of students with differing career interests and backgrounds should prove to be a positive addition to our undergraduate experience.

6. Program Faculty- Using existing faculty (both full and part-time) we have the necessary experience to deliver the core courses and all degree options proposed, due both to the commonality of courses offered, and to the varied experience level of our faculty. We do not anticipate the immediate need to hire any new full-time faculty members until program enrollments necessitate faculty growth. The department employs 15 regular aviation faculty members and numerous credentialed staff to assist in course delivery and since this is a consolidation proposal, all faculty will be devoted to supporting this one degree program. Two are doctoral faculty (with appropriate industry certifications), two are baccalaureate degreed only (with appropriate industry certifications), and the remainder are Master's degreed faculty (with appropriate industry certifications). As the Professional Master's of Technology degree comes into fruition there may be opportunities to employ these students as graduate teaching assistants in support of this program however at this time none are planned. Since all faculty are existing K-State regular or part-time faculty members Vitas are available on request.
7. Academic Support: Initially the academic support required for the proposed program should not change as the majority of our students will continue to pursue professional pilot, and aviation maintenance degree options as before. As enrollments increase in coming years due to the enhanced opportunities for study created, there may be an added strain on the existing support structure however the additional revenue generated as a result may provide some relief. Library support for these increased opportunities involve accommodating the added holdings, periodicals, and journals relevant to the proposed degree options however with the increased utilization of electronic resources the additional burden will be lightened.
8. Facilities: Given the aim of this proposal is to increase efficiencies; we see opportunities for more efficient use of existing facilities rather than the need for new facilities. Given the course commonality, students in multiple degree options will be able to share the same classes.
9. New Equipment: Our recent build-up of equipment in the areas of UAS and Avionics (in support of the existing certificate programs) will provide for the necessary equipment for these options. Our existing equipment will be sufficient for the Aviation Maintenance and Professional Pilot options. The Airport Management option will not require equipment and no equipment will be initially required for the Air Traffic Control option. As enrollment increases within the ATC option a potential enhancement would be the addition of an Air Traffic Control simulator which will require one dedicated classroom however this is not required.

Accreditation and Assessment Considerations

We intend to maintain the Aviation Accreditation Board International (AABI) accreditation status of the existing Professional Pilot program through the PPIL option track. Note that the existing Aviation Maintenance degree program is not academically accredited although the curriculum is approved by the Federal Aviation Administration. However, in the next self-study cycle the Aviation Department leadership intends to explore accreditation opportunity for as many options as possible with this more simplified approach branching from a core curriculum.

Existing assessment rubrics from the respective certificate and degree programs will be modified as needed and incorporated into this consolidated degree. The Aviation Accreditation Board International (AABI) currently accredits the Professional Pilot (PPILB) program in our department although multiple proposed options would be eligible for accreditation review:

For more details on AABI accreditation criteria see: <http://www.aabi.aero>

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IMPACT: No departments outside of the College of Technology and Aviation will be affected by the proposed changes.

EFFECTIVE DATE: Fall 2011

PROPOSED NEW DEGREE PROGRAMS:

Bachelor of Science in Aeronautical Technology

The Bachelor of Science degree program in Aeronautical Technology focuses on a curriculum core and technically specific curriculum of theory, development, and application in the areas of options. The six degree options in the bachelor of science in Aeronautical Technology program allow a student to specialize in Air Traffic Control Management, Airport Management, Avionics Systems and Management, Aviation Maintenance Management, Professional Pilot, and Unmanned Aerial Systems.

COMMON CORE COURSES:

MATH

MATH 100 College Algebra	3
MATH 150 Plane Trigonometry.....	3
MATH 205 General Calculus & Linear Alg	3

COMMUNICATIONS

ENGL 100 Expository Writing I.....	3
ENGL 200 Expository Writing II	3
ENGL 302 Technical Writing.....	3
COMM 106 Public Speaking I	3

SCIENCE

PHYS 113 General Physics I	4
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BUSINESS:

BUS 315 Supervisory Management...	3
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AVIATION:

PPIL 100 Introduction to Aviation	3
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Total Common Core Credit Hours**31**

GENERAL EDUCATION ELECTIVES:

Natural Science Elective	3
Humanities/Social Science Elective	3
Humanities/Social Sci/Business Elective	3

Total General Education Credit Hours**9**

AVIATION ELECTIVES:

Aviation Elective – Upper Division	3
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Total Minimum Aviation Elective Hours**3**

Total Course Hours of core and electives:**43**

All other courses are required as the selected option indicates on the AT matrix sheet.

Required Credit Hours for Graduation:**124 to 127***

*Exact hours vary by the degree option.

PROPOSED BACHELOR'S DEGREE PROGRAM OPTIONS:

No current Air Traffic Control Management Option

Proposed Air Traffic Control Management Option (BATN-ATC) 125 Credit Hours

Fall 1st Semester (14 Credit hours)

ENGL 100 Expository Writing I	3
MATH 100 College Algebra	3
PPIL 100 Introduction to Aviation	3
PPIL 111 Private Pilot	4
PPIL 113 Private Pilot Flight Lab	1

Spring 2nd Semester (17 Credit hours)

COMM 106 Public Speaking I	3
MATH 150 Plane Trigonometry	3
PPIL 112 Professional Instrument Pilot	3
PPIL 114 Professional Instrument Pilot Flight Lab I.....	1
PPIL 342 Aviation Meteorology	4
PSYCH 110 General Psychology	3

Fall 3rd Semester (16 Credit hours)

ENGL 200 Expository Writing II	3
MATH 205 General Calculus and Linear Algebra.....	3
PHYS 113 General Physics I.....	4
PPIL 240 Introduction to Air Traffic Control	3
Natural Science Elective	3

Spring 4th Semester (15 Credit hours)

ECON 110 Principles of Macroeconomics	3
ENGL 302 Technical Writing.....	3
PPIL 386 Aerodynamics	3
PPIL 415 Human Factors in Aviation	3
Computer Elective	3

Fall 5th Semester (15 Credit hours)

PHILO 390 Business Ethics	3
PPIL 270 Introduction to UAS	3
Aviation Elective	3
Humanities/Social Science Elective	3
Humanities/Social Science/Business Elective.....	3

Spring 6th Semester (15 Credit hours)

BUS 315 Supervisory Management	3
ECON 120 Principles of Microeconomics	3
PPIL 442 Advanced Air Traffic Control	3
Aviation Elective*	3
Humanities/Social Science Elective	3

Fall 7th Semester (18 Credit hours)

AVT 460 Airport Planning and Management	3
MKTG 400 Marketing	3
PPIL 440 Air Carrier Operations	3
STAT 325 Introduction to Statistics	3
Aviation Elective*	3
Management Elective.....	3

Spring 8th Semester (15 Credit hours)

PPIL 440 Air Carrier Operations	3
PPIL 445 Aviation Law	3
PPIL 450 Aviation Safety Management.....	3
Aviation Elective	3
<i>Culminating Experience (choose one of the following):</i>	
AVT 497 Senior Project	3
COT 495 Industrial Internship.....	3

*Marked electives must be upper division courses, 300 and above.

No current Avionics Option

Proposed Avionics Option (BATN-AVIO) 124 Credit Hours

Fall 1st semester (14 Credit hours)

AVM 131 Aircraft Standards.....	4
ECET 100 Basic Electronics.....	4
ENGL 100 Expository Writing I.....	3
MATH 100 College Algebra.....	3

Spring 2nd semester (12 Credit hours)

ECET 101 3 Direct Current Circuits.....	3
COMM 106 3 Public Speaking I.....	3
MATH 150 3 Plane Trigonometry.....	3
PPIL 100 3 Introduction to Aviation.....	3

Fall 3rd semester (18 Credit hours)

AVM 241 Navigational Aids and Comm. Systems.....	3
ECET 201 Alternating Current Circuits.....	4
ECET 250 Digital Logic.....	4
MATH 205 General Calculus and Linear Algebra.....	3
PHYS 113 General Physics I.....	4

Spring 4th semester (16 Credit hours)

AVM 162 Airframe Electrical Systems.....	4
ENGL 200 Expository Writing II.....	3
Aviation/Electronics Elective.....	3
Humanities/Social Science Elective.....	3
Natural Science Elective.....	3

Fall 5th semester (16 Credit hours)

AVT 315 Advance Avionics.....	3
AVT 317 Composites I.....	3
AVT 327 Avionics Repair.....	3
Aviation Elective*.....	3
Electronics Elective.....	4

Spring 6th semester (16 Credit hours)

AVT 330 Avionics Troubleshooting.....	4
BUS 315 Supervisory Management.....	3
COMM 311 Business and Professional Speaking.....	3
Humanities/Business/Social Science Elective*.....	3
Humanities/Social Science Elective.....	3

Fall 7th semester (16 Credit hours)

AVT 410 Aviation Maintenance Management.....	3
AVT 430 Advance Avionics Installation.....	4
ENGL 302 Technical Writing.....	3
Aviation/Electronics Elective.....	3
Aviation/Electronics Elective*.....	3

Spring 8th semester (16 Credit hours)

AVT 428 Avionics Installation.....	3
AVT 429 Avionics Maintenance.....	3
Aviation Elective.....	4
Aviation/Electronics Elective*.....	3
Humanities/Business/Social Science Elective*.....	3

*Marked electives must be upper division courses, 300 and above.

No current Airport Management Option

Proposed Airport Management Option (BATN-APMG) 124 Credit Hours

Fall 1st Semester (18 Credit hours)

AVM 131 Aircraft Standards.....	4
ENGL 100 Expository Writing I	3
MATH 100 College Algebra	3
PPIL 100 Introduction to Aviation	3
PPIL 111 Private Pilot	4
PPIL 113 Private Pilot Flight Lab	1

Spring 2nd Semester (17 Credit hours)

COMM 106 Public Speaking I	3
MATH 150 Plane Trigonometry	3
PPIL 112 Professional Instrument Pilot	3
PPIL 114 Professional Instrument Plt Flight Lab I.....	1
PPIL 250 Safety & Security of Airport Ground Operations	3
PPIL 342 Aviation Meteorology	4

Fall 3rd Semester (16 Credit hours)

ECON 110 Principles of Macroeconomics	3
ENGL 200 Expository Writing II.....	3
MATH 205 General Calculus and Linear Algebra.....	3
PHYS 113 General Physics I.....	4
PSYCH 110 General Psychology	3

Spring 4th Semester (15 Credit hours)

BUS 110 Introduction to Business	3
ECON 120 Principles of Microeconomics	3
ENGL 302 Technical Writing.....	3
Aviation Elective	3
Natural Science Elective	3

Fall 5th Semester (15 Credit hours)

AVT 360 Airport Law	3
AVT 361 Airport Environmental Studies.....	3
Aviation Elective*	3
Business Elective	3
Humanities/Social Science Elective	3

Spring 6th Semester (15 Credit hours)

BUS 315 Supervisory Management	3
PPIL 415 Human Factors in Aviation	3
PPIL 440 Corporate and Business Aviation Management.....	3
Computer Elective	3
Humanities/Social Science/Management Elective	3

Fall 7th Semester (15 Credit hours)

AVT 460 Airport Planning and Management	3
COT 495 Industrial Internship.....	3
MKTG 400 Marketing	3
STAT 325 Introduction to Statistics	3
Aviation Elective*	3

Spring 8th Semester (13 Credit hours)

AVT 560 Airport Master Planning and Design.....	3
PPIL 417 Aviation Accident Investigation.....	3
PPIL 440 Air Carrier Operations	3
PPIL 450 Aviation Safety Management.....	3
PPIL 464 Airport Certified Manager.....	1

*Marked electives must be upper division courses, 300 and above.

**Current Aeronautical Technology – Aviation Maintenance (AVMB)
128 Credit Hours**

Fall 1st Semester (15 Credit hours)
 AVM 111 Basic Aircraft Electricity 4
 AVM 121 Aircraft Drawings 1
 AVM 131 Aircraft Standards 4
 AVM 141 Aircraft Science 3
 AVM 151 Aviation Fundamentals 3

Spring 2nd Semester (18 Credit hours)
 AVM 112 Aircraft Welding 2
 AVM 132 Aircraft Fluid Power 3
 AVM 142 Airframe Systems 4
 AVM 152 Airframe Structures and Repair 5
 AVM 162 Airframe Electrical Systems 4

Fall 3rd Semester (18 Credit hours)
 AVM 231 Aircraft Finish and Fabrication 3
 AVM 241 Navigational Aids and Comm Systems 3
 AVM 261 Aircraft Inspection and Assembly 5
 AVM 321 Powerplant Fundamentals 4
 AVM 351 Powerplant Ignition and Electrical Systems 3

Spring 4th Semester (17 Credit hours)
 AVM 312 Aircraft Propellers 2
 AVM 322 Powerplant Operations and Troubleshooting 3
 AVM 332 Gas Turbine Powerplant 5
 AVM 342 Powerplant Induction and Fuel Systems 4
 AVM 352 Powerplant Overhaul 3

Fall 5th Semester (15 Credit hours)
 ENGL 100 Expository Writing I 3
 MATH 100 College Algebra 3
 COMM 106 Public Speaking 3
 Aviation Elective 3
 Natural Science Elective 3

Spring 6th Semester (16 Credit hours)
 CMST 104 Database Management 2
 ENGL 200 Expository Writing II 3
 MATH 151 Applied Plane Trigonometry 2
 MATH 205 General Calculus And Linear Algebra 3
 Aviation Elective* 3
 Humanities/Business/Social Science Elective 3

Fall 7th Semester (17 Credit hours)
 AVM 400 Composites 4
 BUS 315 Supervisory Management 3
 ENGL 302 Technical Writing 3
 PHYS 113 General Physics I 4
 COMM 311 Business and Professional Speaking 3

Spring 8th Semester (12 Credit hours)
 AVM 405 Non Destructive Testing 3
 Aviation Elective* 3
 Humanities/Business/Social Science Elective 3
 Humanities/Social Science Elective 3

*Marked electives must be upper division courses, 300 and above.

**Proposed Aviation Maintenance Management (BATN-AMAP)
126 Credit Hours**

Fall 1st Semester (17 Credit hours)
 AVM 111 Basic Aircraft Electricity 4
 AVM 131 Aircraft Standards 4
 AVM 151 Aviation Fundamentals 3
 ENGL 100 Expository Writing I 3
 MATH 100 College Algebra 3

Spring 2nd Semester (15 Credit hours)
 AVM 112 Aircraft Welding 2
 AVM 132 Aircraft Fluid Power 3
 AVM 142 Airframe Systems 4
 MATH 150 Plane Trigonometry 3
 PPIL 100 Introduction to Aviation 3

Fall 3rd Semester (18 Credit hours)
 AVM 121 Aircraft Drawings 1
 AVM 231 Aircraft Finish and Fabrication 3
 AVM 321 Powerplant Fundamentals 4
 AVM 351 Powerplant Ignition and Electrical Systems 3
 PHYS 113 General Physics I 4
 Natural Science Elective 3

Spring 4th Semester (17 Credit hours)
 AVM 152 Airframe Structures and Repair 5
 AVM 162 Airframe Electrical Systems 4
 AVM 312 Aircraft Propellers 2
 MATH 205 General Calculus And Linear Algebra 3
 Aviation Elective 3

Fall 5th Semester (17 Credit hours)
 AVM 241 Navigational Aids and Comm. Systems 3
 AVM 261 Aircraft Inspection and Assembly 5
 COMM 106 Public Speaking 3
 Aviation Elective* 3
 Humanities/Business/Social Science Elective 3

Spring 6th Semester (15 Credit hours)
 AVM 332 Gas Turbine Powerplant 5
 AVM 342 Powerplant Induction and Fuel Systems 4
 ENGL 200 Expository Writing II 3
 Computer Elective 3

Fall 7th Semester (12 Credit hours)
 BUS 315 Supervisory Management 3
 COMM 311 Business and Professional Speaking 3
 ENGL 302 Technical Writing 3
 Aviation Elective* 3

Spring 8th Semester (15 Credit hours)
 AVM 322 Powerplant Operations and Troubleshooting 3
 AVM 352 Powerplant Overhaul 3
 PPIL 445 Aviation Law 3
 Humanities/Business/Social Science Elective 3
 Humanities/Social Science Elective* 3

*Marked electives must be upper division courses, 300 and above.

Current Aeronautical Technology – Professional Pilot (PPILB)

124 Credit Hours

Fall 1st Semester (14 Credit hours)

ENGL 100 Expository Writing I.....	3
MATH 100 College Algebra.....	3
PPIL 100 Introduction to Aviation.....	3
PPIL 111 Private Pilot.....	4
PPIL 113 Private Pilot Flight Lab.....	1

Spring 2nd Semester (17 Credit hours)

COMM 106 Public Speaking I.....	3
MATH 150 Plane Trigonometry.....	3
PPIL 112 Professional Instrument Pilot.....	3
PPIL 114 Professional Instrument Plt Flt Lab I.....	1
PPIL 342 Aviation Meteorology.....	4
PSYCH 110 General Psychology.....	3

Fall 3rd Semester (15 Credit hours)

ENGL 200 Expository Writing II.....	3
MATH 205 General Calculus and Linear Algebra.....	3
PHYS 113 General Physics I.....	4
PPIL 211 Professional Commercial Pilot.....	3
PPIL 212 Professional Instrument Pilot Flight Lab II.....	2

Spring 4th Semester (17 Credit hours)

ECON 110 Principles of Macroeconomics.....	3
ENGL 302 Technical Writing.....	3
PPIL 213 Professional Commercial Pilot Flight Lab.....	2
PPIL 386 Aerodynamics.....	3
PPIL 415 Human Factors in Aviation.....	3
Computer Elective.....	3

Fall 5th Semester (14 Credit hours)

CMST 102 Database Management.....	2
PPIL 312 Certified Flight Instructor Ground School.....	6
PPIL 425 Advanced Aircraft Systems.....	3
Humanities/Social Science Elective.....	3

Spring 6th Semester (16 Credit hours)

BUS 315 Supervisory Management.....	3
ECON 120 Principles of Microeconomics.....	3
PPIL 262 Multi-Engine Ground School.....	1
PPIL 263 Multi-Engine Flight Lab.....	1
PPIL 314 Certified Flight Instructor Flight Lab.....	2
Aviation Elective.....	3
Humanities/Social Science Elective.....	3

Fall 7th Semester (17 Credit hours)

MKTG 400 Marketing.....	3
PPIL 450 Aviation Safety Management.....	3
PPIL 482 CFI Instrument Ground School.....	1
PPIL 483 CFI Instrument Flight Lab.....	1
STAT 325 Introduction to Statistics.....	3
Aviation Elective.....	3
Business/Management Elective.....	3

Spring 8th Semester (14 Credit hours)

PPIL 440 Air Carrier Operations.....	3
PPIL 445 Aviation Law.....	3
Aviation Elective.....	2
Natural Science Elective.....	3

Culminating Experience - Choose one of the following:

COT 495 Industrial Internship.....	3
PPIL 416 Crew Resource Management.....	3
PPIL 455 Current Trends & Issues in Aviation.....	3

*Marked electives must be upper division courses, 300 and above.

Proposed Aeronautical Technology Professional Pilot (BATN-PPILB)

124 Credit Hours

Fall 1st Semester (17 Credit hours)

ENGL 100 Expository Writing I.....	3
MATH 100 College Algebra.....	3
PPIL 100 Introduction to Aviation.....	3
PPIL 111 Private Pilot.....	4
PPIL 113 Private Pilot Flight Lab.....	1
Natural Science Elective.....	3

Spring 2nd Semester (17 Credit hours)

COMM 106 Public Speaking I.....	3
MATH 150 Plane Trigonometry.....	3
PPIL 112 Professional Instrument Pilot.....	3
PPIL 114 Professional Instrument Pilot Flight Lab I.....	1
PPIL 342 Aviation Meteorology.....	4
PSYCH 110 General Psychology.....	3

Fall 3rd Semester (16 Credit hours)

ENGL 200 Expository Writing II.....	3
MATH 205 General Calculus and Linear Algebra.....	3
PHYS 113 General Physics I.....	4
PPIL 211 Professional Commercial Pilot.....	3
PPIL 212 Professional Instrument Pilot Flight Lab II.....	2
PPIL 216 Altitude Chamber.....	1

Spring 4th Semester (17 Credit hours)

ECON 110 Principles of Macroeconomics.....	3
ENGL 302 Technical Writing.....	3
PPIL 210 Aviation Safety.....	3
PPIL 213 Professional Commercial Pilot Flight Lab.....	2
PPIL 386 Aerodynamics.....	3
PPIL 415 Human Factors in Aviation.....	3

Fall 5th Semester (15 Credit hours)

PPIL 312 Certified Flight Instructor Ground School.....	6
PPIL 325 Advanced Aircraft Systems.....	3
Computer Elective.....	3
Humanities/Social Science Elective.....	3

Spring 6th Semester (16 Credit hours)

BUS 315 Supervisory Management.....	3
ECON 120 Principles of Microeconomics.....	3
PPIL 262 Multi-Engine Ground School.....	1
PPIL 263 Multi-Engine Flight Lab.....	1
PPIL 314 Certified Flight Instructor Flight Lab.....	2
Aviation Elective.....	3
Humanities/Social Science Elective.....	3

Fall 7th Semester (14 Credit hours)

MKTG 400 Marketing.....	3
PPIL 387 Crew Resource Management I.....	3
PPIL 482 CFI Instrument Ground School.....	1
PPIL 483 CFI Instrument Flight Lab.....	1
STAT 325 Introduction to Statistics.....	3
Aviation Elective*.....	3

Spring 8th Semester (12 Credit hours)

PPIL 440 Air Carrier Operations.....	3
PPIL 445 Aviation Law.....	3
Humanities/Social Science/Business Elective.....	3

Culminating Experience (choose one of the following):

AVT 497 Senior Project.....	3
COT 495 Industrial Internship.....	3
PPIL 416 Crew Resource Management II.....	3

*Marked electives must be upper division courses, 300 and above.

No Current Unmanned Aerial Systems Option

**Proposed Unmanned Aerial Systems Option
(BATN-UAS)
127 Credit Hours**

Fall 1st Semester (17 Credit hours)

ENGL 100 Expository Writing I	3
MATH 100 College Algebra	3
PHILO 105 Introduction to Critical Thinking	3
PPIL 100 Introduction to Aviation	3
PPIL 111 Private Pilot	4
PPIL 113 Private Pilot Flight Lab	1

Spring 2nd Semester (17 Credit hours)

COMM 106 Public Speaking I	3
MATH 150 Plane Trigonometry	3
PPIL 112 Professional Instrument Pilot	3
PPIL 114 Professional Instrument Plt Flt Lab I	1
PPIL 270 Introduction to UAS	3
PPIL 342 Aviation Meteorology	4

Fall 3rd Semester (16 Credit hours)

AVM 151 Aviation Maintenance Fundamentals.....	3
ENGL 200 Expository Writing II	3
MATH 205 General Calculus and Linear Algebra.....	3
PHYS 113 General Physics I.....	4
PPIL 360 UAS I.....	3

Spring 4th Semester (16 Credit hours)

ECET 100 Basic Electronics.....	4
ECON 110 Principles of Macroeconomics	3
ENGL 302 Technical Writing.....	3
PPIL 386 Aerodynamics	3
PPIL 415 Human Factors in Aviation	3

Fall 5th Semester (15 Credit hours)

AVM 241 NAV Aids and Communications.....	3
AVT 327 Avionics Repair	3
ECET 101 Direct Current Circuits	3
PSYCH 110 General Psychology	3
Computer Elective	3

Spring 6th Semester (16 Credit hours)

BUS 315 Supervisory Management	3
CMST 250 Networking I	3
ECET 110 Semiconductors Electronics	4
MKTG 400 Marketing	3
PPIL 460 UAS II.....	3

Fall 7th Semester (15 Credit hours)

STAT 325 Introduction to Statistics	3
Aviation/Computer Elective	3
Aviation Elective*	3
Aviation/Electronics Elective*	3
Humanities/Social Science/Business Elective*	3

Spring 8th Semester (15 Credit hours)

AVT 497 Senior Project	3
GEOG 508 Geographic Information Systems	3
PPIL 450 Aviation Safety Management.....	3
Humanities/Social Science Elective*	3
Natural Science Elective	3

*Marked electives must be upper division courses, 300 and above

HUMAN ECOLOGY
New Undergraduate Curricula – New Minor

Department of Hospitality Management and Dietetics

Add:

Hotel & Restaurant Management (New undergraduate minor)

The undergraduate minor in Hotel and Restaurant Management provides a theoretical and empirical framework building upon the strength of the existing Hotel and Restaurant Management baccalaureate program. The minor provides students basic understanding of the practice and theoretical underpinnings of foodservice, lodging, or convention management.

MINOR REQUIREMENTS (18 Hours)

___	HMD	120	(3)	Introduction to the Hospitality Industry
___	HMD	220	(3)	Environmental Issues in Hospitality
___	HMD	341	(3)	Principles of Food Production Mgt.
				OR
___	HMD	361	(3)	Principles of Lodging Operations
				OR
___	HMD	363	(3)	Principles of Convention, Meeting, & Event Management
___	HMD	621	(3)	Hospitality Law
___	HMD	___	(3)	Hospitality Elective
___	HMD	___	(3)	Hospitality Electives**

Elective Options

****Students must choose six credit hours of elective course options, 3 credits of these must be at the 400-level or above.**

___	HMD	230	(3)	Issues in Tourism
___	HMD	331	(3)	Professional Club Management
___	HMD	340	(2)	Contemporary Issues in Controlled Beverages
___	HMD	341	(4)	Principles of Food Production Management
___	HMD	342	(4)	Food Production Management*
___	HMD	361	(3)	Principles of Lodging Operations
___	HMD	362	(1)	Lodging Practicum
___	HMD	363	(3)	Principles of Convention, Meeting, & Event Management
___	HMD	370	(1)	Fundamentals of Wedding Planning
___	HMD	410	(3)	Development of American Cuisine
___	HMD	421	(3)	Hospitality Service Systems
___	HMD	422	(3)	Cost Controls in Hospitality Operations*
___	HMD	423	(3)	Facility, Risk, and Security Mgmt.
___	HMD	424	(3)	Hospitality Marketing & Sales
___	HMD	427	(3)	Travel and Dining Auction Event Management
___	HMD	442	(1)	Introduction to Wines
___	HMD	443	(3)	Food Writing
___	HMD	462	(1)	Advanced Wines
___	HMD	464	(3)	Lodging Management Systems
___	HMD	475	(3)	Internship in Hotel Restaurant Mgmt. *
___	HMD	482	(3)	Human Resource Management in the Hospitality Industry*

___	HMD	621	(3)	Hospitality Law
___	HMD	624	(2)	Procurement in the Hospitality Industry
___	HMD	662	(3)	Advanced Foodservice Systems*
___	HMD	663	(3)	Convention, Meeting & Event Planning and Development
___	HMD	664	(3)	Lodging Management Theory
___	HN	413	(4)	Science of Food*

*These courses may require additional prerequisite courses in excess of the 6 credit hours needed for the HRM minor.

Other electives or independent study options relevant to the area of hospitality management will also be considered on an individual basis (e.g., Faculty-Led International Study).

Completion requirements

The minor in Hotel and Restaurant Management will be available upon completion of the eighteen (18) required credit hours. To be awarded a minor, the student (a) must not be on probation, (b) must have a cumulative GPA of 2.0 or higher on coursework applied to the minor, (c) must meet all requirements of the student's major degree program, and (d) must be enrolled during the semester in which the minor's requirements are completed.

IMPACT: The only additional elective offered in the minor outside of the department of Hospitality Management and Dietetics is the Science of Food Course offered by the Department of Human Nutrition. A letter of support from Denis Medeiros, Department Head of Human Nutrition is attached.

RATIONALE: The undergraduate minor in Hotel and Restaurant Management provides a theoretical and empirical framework building upon the strength of the existing Hotel and Restaurant Management baccalaureate program. The minor provides students basic understanding of the practice and theoretical underpinnings of foodservice, lodging, or convention management.

EFFECTIVE DATE: Fall 2012

(Assessment plan follows)

**Academic Minor
Assessment of Student Learning Plan
Kansas State University**

A. College, Department and Date of this Submission

College: Human Ecology

Department: Hospitality Management and Dietetics

Date of Submission: 9/1/10

B. Contact Person(s) for the Assessment Plans

Kevin R. Roberts, Assistant Professor

C. Program – Degree, Minor, or Certification

Undergraduate Minor in Hotel and Restaurant Management

D. Assessment of Student Learning

1. It is intended that the Minor in Hotel and Restaurant Management be available upon completion of the 18 required course hours for the academic minor.

KNOWLEDGE

SLO #1: Students will understand the functional systems in foodservice, lodging, or convention/event management operations.

CRITICAL THINKING

SLO #2: Demonstrate the ability to develop, examine, question, and explore perspectives or alternatives to problems in hospitality operations.

COMMUNICATION

SLO #3: Demonstrate the ability to use professional written and oral communication skills and technology to successfully communicate.

DIVERSITY

SLO #4: Demonstrate awareness, understanding and skills necessary to live and work in a diverse world.

PROFESSIONAL DEVELOPMENT:

SLO #5: Practice professional ethics, provide leadership, demonstrate personal and global responsibility, and work effectively as a team member.

2. How will the learning outcomes be assessed? What groups will be included in the assessment?

Student learning outcomes will be assessed using an electronic (1) pre-test survey in the first course (HMD 120) given to all enrolled students; and (2) post-test survey after the completion of the 18 credit hours given to all students completing the Minor. All students will be tracked utilizing an online system and sent the electronic survey once they complete their final set of courses for the Minor.

3. When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?

Program SLO's	Year 1	Year 2	Year 3	Baseline Created?
KNOWLEDGE SLO #1	Pre-test Survey HMD 120	Post-Test Survey & Review	Revise	Pre-Test Fall 2011/Spring 2012 Post-Test Fall 2012/Spring 2013
CRITICAL THINKING SLO #2	Pre-test Survey HMD 120	Post-Test Survey & Review	Revise	Pre-Test Fall 2011/Spring 2012 Post-Test Fall 2012/Spring 2013
COMMUNICATION SLO #3	Pre-test Survey HMD 120	Post-Test Survey & Review	Revise	Pre-Test Fall 2011/Spring 2012 Post-Test Fall 2012/Spring 2013
DIVERSITY SLO #4	Pre-test Survey HMD 120	Post-Test Survey & Review	Revise	Pre-Test Fall 2011/Spring 2012 Post-Test Fall 2012/Spring 2013
PROFESSIONAL DEVELOPMENT: SLO #5	Pre-test Survey HMD 120	Post-Test Survey & Review	Revise	Pre-Test Fall 2011/Spring 2012 Post-Test Fall 2012/Spring 2013

Baseline data will be reviewed by the program's curriculum committee and surveys revised, as needed. Surveys will also be used to measure student satisfaction (indirect measures) and identify possible areas for improvement in the program.

4. What is the unit's process for using assessment results to improve student learning?

We will review the current courses and determine relevancy of existing exercises and assignments. We plan on using real life examples and helping students apply the key student learning outcomes to practice a more advanced set of practical and applied knowledge and skills.