

Date: August 13, 2010

Subject: SBS Aviation Major revisions

From: James Fredal, Chair CCI Science Subcommittee

The Sciences Subcommittee considered the proposal for revisions to the Aviation major in the Social and Behavioral Sciences via an electronic discussion and vote from July 6 through July 19, 2010. The Aviation major is currently administered through three units and awarding three degrees that differ in focus: Engineering, SBS, and Business.

Several factors contributed to the proposal to revise the Aviation major, including a shift in the faculty makeup of SBS, changes in Aviation's philosophy of how to prepare students for careers, a decision in Engineering to drop the Department of Aviation in favor of an Center for Aviation Studies (not a tenure initiating unit) and a history of curricular changes that allowed Aviation students to earn the major and the degree without ever taking an SBS course. The College of Engineering, the College of Business, and the CAA are all in favor of revisions to the SBS Aviation major. The new major will be housed in Geography and will incorporate courses from five other SBS departments.

The current Aviation major is comprised of Aviation core courses (28 hours), Aviation elective courses (6 hours), and Aviation Management courses (18-22 hours).

The goal of the proposed changes is to provide students with a broader choice of alternative career paths (including flight, management, air traffic control, marketing, logistics, and public relations) without compromising high quality flight training. The new major will be housed in the Department of Geography and will be comprised of six SBS core courses in Geography (30 hours) and four electives to be chosen from three categories (at least 20 hours): Security; Individual and Social; and Institutions. In addition, the major will include an Aviation core (28 hours) and Aviation electives (9 hours). With general education requirements, the major will total 183 quarter hours. This structure and hour load is comparable to the Aviation major offered through the Business College and to Aviation majors offered by other institutions.

Students will have access to the Aviation advisor for Major issues and departmental Geography advising for SBS related issues. Students will continue to pursue internships as a portion of their Aviation electives.

Assessment will measure the Major's fulfillment of four program goals (Aviation Major Proposal, p. 4) through focus groups with students in the major, and exit survey of graduating seniors, and embedded testing in selected courses to measure student understanding of central concepts and methods. Assessment results will be reviewed annually by the Center for Aviation Studies, the Department of Geography, and SBS.

The Sciences subcommittee approved the proposal unanimously with contingencies having to do with consistency of wording ("Institutions" vs. "Institutional") and course numbers from the current to the proposed major. These contingencies have since been

addressed. The sub-committee therefore presents the proposal to the full committee with a recommendation for approval.

The Social and Behavioral Sciences Aviation Major Proposed Revision

Name of major: SBS Aviation Transportation¹

Proposed Implementation Date: Autumn 2010

Degree to be Received: Bachelor of Arts

Rationale:

Over the past three to four years, the Aviation major in the Social and Behavioral Sciences (SBS) has taken on a more vocational practice of focusing on hands-on flight training and flight time than on the mission of the strong liberal arts education that SBS believes is its foundation. This modification has taken place because of changes to the faculty makeup in SBS as well as a shift in Aviation's philosophy of how to prepare students for careers. Many of the curricular changes over the last few years have taken place without the knowledge of either the College of Engineering, where the Department of Aviation resided, or SBS. The resulting, and current, Aviation major within SBS allows a student to earn the major and the SBS degree without ever taking SBS courses. This proposal to revise the SBS Aviation undergraduate program will reshape the curriculum so that students will have the benefit of SBS disciplinary competence and pedagogy.

It is useful to note that, late last year, the College of Engineering initiated a proposal to dismantle its Department of Aviation and establish a Center for Aviation Studies (CAS) in its place. The CAS will not be a tenure-initiating unit (TIU), and Aviation's faculty will have new homes in the College of Engineering. The CAS Director will be a faculty member in the College of Engineering reporting directly to the Dean of the College of Engineering. SBS has concurred with the proposal, as has the Fisher College of Business (FCOB).

Equally, if not more important to note, the Dean's office of the College of Engineering and the Fisher College of Business support a thorough revision of the SBS Aviation major. The Council on Academic Affairs (CAA) supports the revision as well².

Beginning February 2010, representatives from SBS, Engineering, the Department of Aviation, and the Department of Geography have met and exchanged ideas on how to offer current Aviation majors the education required for a degree in the Arts and Sciences while continuing to provide the training necessary for a career in the aviation industry. We feel that this proposal to revise the major meets this challenge.

1. Among the eight departments within SBS plus the Undergraduate International Studies Program (UISP), Geography is the most logical host for the major revision. The department has a strong emphasis on transportation and other ancillary subject areas which directly reflect the needs of students interested in the aviation field (meteorology, mapping, business, and understanding global connections). With these well-suited offerings, Geography courses represent the SBS core of the revised major.

¹ Baccalaureate aviation degrees generally fall under one of two categories: *Aviation Systems* or *Aviation Management* degrees. *Aviation Systems* degrees require students to obtain a minimum of a private pilot's license as well as Instrument and Commercial ratings, while *Aviation Management* degrees do not prepare students for a pilot's license. The proposed SBS Aviation Transportation falls within the *Aviation Management* category.

² See *Volume 3: Proposal to reconfigure AVN; Response to CCAA Comments*, January 2010.

2. Aviation is a diverse field, and the proposal incorporates courses from five other SBS departments (Communication, Economics, International Studies, Political Science, Psychology, and Sociology). Courses from these other departments will satisfy major electives categories, making the revised major an interdisciplinary one which will expose students to the varied areas of interest and research within the field.
3. The goal of the revised major is to provide students a choice of alternative career paths while maintaining the high quality of flight instruction they receive through the CAS. Although a career as a pilot is the most obvious of careers, it is far from the only one. Jobs in airline/airport management, air traffic control, marketing, travel logistics, and public relations are but a few careers students can prepare for via a well-rounded curriculum. The aviation sector is widely interconnected with the economy and so we believe an appropriately broad training and education makes sense as a preparation for students.

Revised Major:

After consultation with curricular representatives from Engineering and SBS, and after receiving support from the department chairs (or their designees) whose courses are included in the major, we are proposing the following changes to the Aviation major:

The revised major will be comprised of an SBS Core of six Geography courses (30 quarter hours) and four Elective courses to be chosen from three categories (at least 20 quarter hours). The three Elective categories are: *Security*, *Individual and Social*, and *Institutions* (Appendix A). This major revision would require students to take a minimum of 50 SBS hours. The average number of hours taken by students is anticipated to be the same. While the number of hours will change with the implementation of the semester system, the number of courses required to meet the major requirements will remain the same (10 courses total, again, depending on the specifics of how courses are converted from quarter hours to semester hours).

The Aviation Core of the major will consist of eight required courses (28 quarter hours) and three Aviation Elective courses (9 quarter hours). Along with the University's general education requirements and the opportunity to choose free elective hours, the SBS Aviation Transportation major will total 183 quarter hours (see Appendix B.).³

SBS Core

The core courses represent topics directly associated with aviation and provide practical knowledge and transferable skills for students. They include courses in topics such as transportation, transportation security, weather and climate, and cartography. These address issues that are present in many areas of the transportation sector and give students a strong understanding of the principles needed to be successful. These are all courses which are consistently taught by faculty in the department and are fully expected to be consistently offered once the semester system is in place.

SBS Electives

1. Security

Courses in this category are largely from International Studies, Sociology and Psychology and address trends in terrorism, the security apparatus of governments, and personal security. These are

³ The 87 SBS and Aviation major hours are reasonable for this type of major. The Fisher College of Business Aviation specialization requires 86-89 quarter hours and the Engineering Aviation major requires 109 quarter hours. It appears that requiring 85 or more major credit hours is the norm for aviation baccalaureate degrees nationally as well (see Appendix C.).

central concerns for both the aviation industry itself and individual travelers. Those working in this sector must be aware of how threats to security can be met and how best to understand and assist those affected, whether directly or indirectly.

2. Individual & Social

Courses in this category are potentially drawn from Communication, Psychology, Sociology, and Geography. They cover a broad range of topics that encompass the human interaction components of the field. Considering the transnational nature of transportation in general, and aviation in particular, a solid understanding of geopolitical issues, communication theories and practices, and how individuals interpret situations causing them to act in certain ways alone and in groups is an ongoing and important component to problem solving in the field.

3. Institutions

Courses in this category are from Economics, Communication, and International Studies. These courses address issues surrounding international law, governmental oversight, employment legislation, and effective business communication. In essence they are concentrated on the business and trade aspects that are prevalent in aviation corporate dealings.

Student Enrollment

Currently, there are 182 Aviation majors⁴ in total, and 146 (80%) of those are SBS Aviation majors. The numbers have remained relatively steady over time, and we expect that the program will continue to enroll approximately 150 SBS Aviation majors.

Relationship to other programs

We expect little impact on other programs throughout the university. There may be a modicum of change in enrollment numbers in various Aviation courses, depending on the changes to the aviation portion of the program (see Appendix B).

Administration

The revised program will be an SBS major. For now, any changes to the structure or content of the program will be vetted through the regular Arts and Sciences (ASC) approval process (including the SBS Curriculum Committee) as well as through the College of Engineering. Once the Center for Aviation Studies (CAS) is established, any changes to the program will be vetted through ASC after seeking concurrence by CAS.

Proposed revisions as they relate to similar programs at other institutions

Non-engineering baccalaureate aviation degrees at other universities focus on administration and management. There tend to be 2 sets of core requirements – non-aviation and aviation cores.

Non-aviation core requirements for aviation baccalaureate programs nationally generally include courses from several disciplines of the social sciences: climatology, physical geography, marketing, economics, communication, psychology (individual and social behavior), and domestic and international law. Appendix C provides several examples of the organization and content of other institutions' aviation management/administration programs.

⁴ Aviation degrees are conferred by the Fisher College of Business, the College of Engineering, and the ASC division, Social and Behavioral Sciences.

This proposal to revise SBS' aviation major is consistent with what appears to be a convention for these programs, and will prepare students for a variety of careers in aviation that require or prefer baccalaureate degrees⁵. Moreover, this proposal is forward-thinking in that it will provide students the preparation that will be expected as aviation careers are developed or reshaped to deal with increased interest in the global effects of aviation transportation, especially aviation transportation security.

Advising and Student Resources

Students will have access to the Aviation advisor for advice relating to the major, appropriate minors, or coursework that would augment their marketability. The departmental advisor for Geography would also be available for consultation on issues relating to the SBS Core courses of the major.

The advisor is also available to students for assistance with career search help and resume/cv and cover letter reviews. Additionally, students will have access to the Geography's Undergraduate Resource Room located in Derby Hall. The Resource Room has computers for students to access e-mail and Carmen and is also equipped with course-relevant software programs, such as Arc/Info for GIS and Cartography courses.

Internships

Through the Department of Aviation and, later, through the Center for Aviation Studies (CAS), internships with industry are available in aviation management and administration. These internships are often paid and are available for credit in the Aviation Electives portion of the proposed SBS Aviation Major revision. We expect that students also will continue to compete for internship positions at the OSU airport in administration, planning, external relations, marketing, and so forth.

Assessment

Our assessment will be multidimensional and ongoing. We expect our assessment strategy to result in SBS Aviation Transportation majors who are better prepared for the job market, graduate studies, and as citizens. Program goals are as follows:

- A. Students acquire fundamental theoretical and practical knowledge of transportation systems
- B. Students understand the social and behavioral processes shaping transportation and transportation systems
- C. Students acquire specialized knowledge regarding significant issues in the transportation industry
- D. Students acquire familiarity with methods in geospatial data analysis

Our assessment plan will initially consist of:

- Use of focus groups with students in the major. Facilitators will systematize sessions by eliciting responses to a predetermined set of questions regarding goals A and C.
- An exit survey of graduating seniors, which includes questions about the major regarding their overall educational experience, classroom experience, research and internship participation, and placement in jobs and graduate school.

⁵ See *Careers in Aviation* on the Aircraft Owners and Pilots Association's website, <http://www.aopa.org>, for the careers as pilots, in airline and airport operations, airline and airport services, scientific services (e.g. cartography), law-related services, and office professionals that require or prefer baccalaureate degrees.

- Use of embedded testing in selected courses which will demonstrate student understanding of essential concepts (Courses used for embedded testing will be identified jointly through SBS, Aviation, and Geography).

The assessment strategy will be refined as we learn the results data collection from focus groups responses and embedded testing. SBS, the Center for Aviation Studies (CAS), and the Department of Geography will consult regarding results. Assessment strategies will be revisited annually by all three participants, and program goals, assessment strategies, and the SBS Aviation Transportation curriculum will be revised as warranted.

Appendix A

**SBS AVIATION TRANSPORTATION MAJOR
50 SBS QUARTER HOURS
6 CORE COURSES + 4 COURSES FROM 3 AREAS**

	COURSE	DESCRIPTION	PREREQUISITES
<u>REQUIRED SBS CORE</u> 30 hours	Geog 240 - Economic and Social Geography	This course explores relationships between society and economy, focusing on geographic dimensions of such issues as globalization, production and consumption, inequality, and social difference.	
	Geog 445 - Transportation Security	Geographic aspects of transportation security. Spatial analysis of transportation linkages. Relationships between transportation and spatial organization; selected analytical models dealing with threats to transportation security.	
	Geog 520 - Climatology	The elements and the controls of climate; types of climate and their distribution; climates and their effects on the economic and other activities of humans.	
	Geog 580 - Elements of Cartography	A study of the cartographic techniques of map compilation and presentation including generalization, symbolization, reproduction, and simple computer mapping with an emphasis on thematic mapping.	
	Geog 607 - Fundamentals of Geographic Information Systems	Basic principles of geographic and land information systems and their use in spatial analysis and information management.	Geog major or permission of instructor.
	Geog 645 - Geography of Transportation	Relation between transportation and spatial organization; selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to selected problems.	

**3 Areas: SECURITY, INDIVIDUAL & SOCIAL, AND INSTITUTIONS
Required: 4 courses, at least 1 from each of 3 Areas**

Area 1: SECURITY

<u>SECURITY</u> at least 1 course (7 options)	Comm 531 - Communication and Conflict Management	An overview of the communication and conflict literature with emphasis on effective conflict management.	
	Comm 597.01 - Global Issues and Communication: Media and Terrorism	Focuses on the portrayal of terrorism in the media and on how terrorists use the media to influence public opinion.	Rank 3 or higher.
	IS 300 - Introduction to Homeland Security	Comprehensive overview of U.S. homeland security. Threats from natural disasters, terrorism, etc will be studied. Programs and technologies involved in disaster prevention and response.	Rank 2 or higher or permission of instructor.
	IS 553 - Terror and Terrorism	Focus on the origins, evolution and place of terrorism in the modern world and the ideology, motivation, and methods of a number of terrorist groups.	
	Poli Sci 548 – Politics of Int'l Terrorism	Examines international terrorism's concepts and actors, the motivations and causes of terrorism, the experience of the United States, and tensions between freedoms and security.	
	Psych 525 - Psychology of Personal Security: Global and Local Perspectives	Surveys the diverse psychological literature on personal security, a key ingredient in psychological well-being.	Psych 100.
	Soc 315 - Sociology of Terrorism	Provides a broad review of the definitions, histories, types, and theories of terrorism from a sociological perspective.	

Area 2: INDIVIDUAL & SOCIAL

<u>INDIVIDUAL & SOCIAL</u> at least 1 course (11 options)	Comm 367 - Persuasive Communication	Principles of persuasion as reasoned discourse.	English 110, 110.01, 110.02, 110.03 or equiv, and rank 2 or above.
	Comm 431 - Strategic Communication Principles	The role of strategic communications in business, including basic principles of integrated marketing, theory, and ethical standards.	

	Geog 460 – Space, Power, and Political Geography	Political geographic thought; territory and territoriality; borders and scale; space, power and uneven development; states and statecraft; and the politics of nations, regions and localities	
	Geog 642 - Geography of Development	Political economy of development; development theory; the historical geography of capitalist development; and contemporary development practices and strategies.	
	IS 501 - Selected Problems in International Studies	Class discussions, with several guest speakers, informal conferences, and a reading and research program arranged to meet the special needs of those enrolled.	
	Poli Sci 201 – Intro to Political Behavior	Focus on concepts such as attitude, role, and group and their application in such areas as voting behavior and political participation.	
	Psych 309 - Human Motor Control and Learning	Experimental analyses of the processes underlying the performance, learning and adaptation of movement skills.	Psych 300 or 220 or 320, or Stat 145, or permission of instructor.
	Psych 508 - Psychology of Judgment and Decision-Making	An overview of current models and empirical research on cognitive processes in human decision-making and judgment under risk or uncertainty.	Psych 220 or 320, or Stat 145 or 245; or permission of instructor.
	Psych 521 - Personnel Psychology	Overview of theory, method, and practices of personnel psychology: job analysis, recruiting, personnel selection, performance appraisal, and training.	Psych 100; 220 or 320, or Stat 145 or 245.
	Soc 302 - Technology and Global Society	Social aspects of technology, social change, and technological development; underdevelopment and the global economy.	
	Soc 370 - Social Factors in Personality	Analysis of relationships between social structure and personality; language; its consequences for social behavior; socialization: learning of motives and social roles; personality: development, organization, and disorganization.	

Area 3: INSTITUTIONS

<u>INSTITUTIONS</u> at least 1 course (16 options)	Comm 200 - Communication in Society	Role of communication in society; forms, strategies, theories and issues; interpersonal, group, organizations, public and mass communication.	
	Comm 240 - Introduction to Communication Technology	Processes of communication technology, critical consumption, ethical issues, current problems of the markets, technologies and policies of online communication, the world wide web, and media.	

Comm 368 - Intercultural Communication in Organizational Contexts	An examination of the role of intercultural communication in organizational contexts and the attendant effects on the creation and transmission of cultural consciousness, knowledge, tradition, and practices.	
Econ 348 - Ethics and Social Responsibility in Economic Life	Examines the role of ethical norms and social constraints in determining economic outcomes.	
Econ 560 - International Economic Relations	Survey of international economic relations; the basis of world trade; commercial and financial policy, particularly of the United States; and recent international economic organization.	Econ 200 and 201 or 400, or equivalents.
Econ 570 - Government and Business	Economic and legal aspects of government regulation of business in the United States; philosophies and concepts of public control; contemporary problems.	Econ 200.
Econ 580 - Labor Economics and Industrial Relations	Survey of the field of labor economics; trade unionism, collective bargaining; wage determination, employment, unemployment; labor legislation.	Econ 200.
IS 356 - Introduction to Globalization	Analysis of globalization in all its aspects, economic, political, cultural, environmental and technological, as well as of its extent and desirability.	Rank 2 or higher.
IS 550 - Cultural Diplomacy	Cultural Diplomacy is the exchange of information, ideas, and values among nations and peoples. Public and private mechanisms for these exchanges are explored.	Rank 2 or higher.
Geog 450 - The Making of the Modern World	The geographies of modernity and their formation: the world market, the global polity, diasporas and constructing difference, colonialism, the transformation of nature, Eurocentricity, post-modernity.	Rank 2 or higher.
Geog 470 - Life and Death Geographies: Global Population Dynamics	Theories of population change; global and national contexts of fertility policy and reproductive health, morbidity and mortality trends; migration; environmental effects of population growth; urbanization	Geography 240.
Geog 635 - Globalization and Environment	Transnational dimensions of changes to the natural environment; ways that global economic activity, international institutions, and global environmentalism contribute to environmental problems and solutions.	
IS 650 - International Law	Examination of the varied sources, traditions, functions and structures of international law and its significance in maintaining stability, continuity and communication in the international system.	Rank 2 or higher.
Poli Sci 305 – Intro to Public Policy	Introduction to the workings of policy-making processes within governments, and the use of social science reasoning to evaluate and improve the content of policies.	

	Poli Sci 535 – Govts & Politics of Modern Democracies	A survey of the basic institutions and politics of modern democracies, with emphasis on representativeness and democratic stability.	
	SOCIOLOGY 309 - Introduction to Law and Society	Introduction to the law as a social institution, including the origins of law and its relationship to other social institutions, social control, and social change.	

Appendix B

The Proposed Quarter-System SBS Aviation Transportation Major: A Revision of the SBS Aviation Major

Social & Behavioral Sciences Core (All Required)	SBS Electives (Choose 4 courses)	Aviation Core (All Required)	Aviation Electives (Minimum of 9 Hours Required)
Geog 240 - Economic and Social Geography	Security (at least 1):	AV 300 The National Aviation System(3)	AV 341 Private Pilot Flight Lab I
Geog 445 - Transportation Security	Comm 531 – Communication & Conflict Mgmt	AV 310 Private Pilot Fundamentals (5)	AV 342 Private Pilot Flight Lab II
Geog 520 - Climatology	Comm 597.01 – Global Issues & Communication: Media & Terrorism	AV 410 Aviation Weather (3)	AV 413 Commercial Pilot Fundamentals
Geog 580 - Elements of Cartography	IS 300 - Introduction to Homeland Security	Comm 325 - Introduction to Organizational Communication (5)	AV 415 Instrument Flight Fundamentals
Geog 607 - Fundamentals of Geographic Information Systems	IS 553 - Terror and Terrorism	AV 530 Aviation Regulation (3)	AV 417 Advanced Multiengine Operations
Geog 645 - Geography of Transportation	Poli Sci 548 - Politics of Int'l Terrorism	AV 550 Aviation Management (3)	AV 421 Flight Instruction Methodology
	PSY 525 - Psychology of Personal Security	AV 560 Aviation Safety (3)	AV 422 Instrument Instruction Methodology
	SOC 315 - Sociology of Terrorism	AV 650 Air Transportation Analysis I (capstone) (3)	AV 441 Commercial Flight Lab 1
	Individual & Social (at least 1):		AV 443 Commercial Pilot Flight Lab 3
	Comm 367 – Persuasive Communication		AV 446 Commercial Pilot MEL Flight Lab 4
	Comm 431 – Strategic Communication Principles		AV 461 Flight Instructor ASEL Flight Lab
	Geog 460 – Space, Power, & Poli Geography		AV 462 Flight Instructor Instrument Airplane Flight Lab
	Geog 642 - Geography of Development		AV 463 Flight Instructor AMEL Flight Lab
	IS 501 – Selected Problems in Int'l Studies		AV 489 Professional Practices in Industry
	Poli Sci 201 – Intro to Political Behavior		AV 552 Airport Management
	Psych 309 - Human Motor Control and Learning		AV 591 Flight Network Analysis & Optimization
	Psych 508 - Psychology of Judgment and Decision-Making		AV 593 Individual Studies in Aviation
	Psych 521 - Personnel Psychology		AV 650 Air Transportation Analysis I
	Soc 302 - Technology and Global Society		AV 652 The International Aviation System

	Soc 370 - Social Factors in Personality		AV 674 Airport Systems Planning, Design, and Development
	Institutions (at least 1):		AV 693 Individual Studies
	Comm 200 – Communication in Society		
	Comm 240 – Intro to Communication Technology		
	Comm 368 – Intercultural Communication in Organizational Contexts		
	Econ 348 - Ethics and Social Responsibility in Economic Life		
	Econ 560 - International Economic Relations		
	Econ 570 - Government and Business		
	Econ 580 - Labor Economics and Industrial Relations		
	Geog 450 - The Making of the Modern World		
	Geog 470 – Life & Death Geog: Global Population Dynamics		
	Geog 635 - Globalization and Environment		
	IS 356 – Intro to Globalization		
	IS 550 – Cultural Diplomacy		
	IS 650 - International Law		
	Poli Sci 305 – Intro to Public Policy		
	Poli Sci 535 – Govts & Politics of Modern Democracies		
	Soc 309 – Intro to Law & Society		
30 Quarter Hours	20 Quarter Hours	28 Quarter Hours	Minimum of 9 Quarter Hours

SUMMARY:

Social & Behavioral Sciences Core	30 hours
SBS Electives	20 hours
Aviation Core	28 hours
Aviation Electives	9 hours
OSU General Education Courses	80-106 hours
Free Electives	0-16 hours
Total Quarter Credit Hours	183 hours

Appendix C

REQUIRED CORE

BACCALAUREATE INSTITUTION	NON-AVIATION CORE	AVIATION CORE	ELECTIVES	GE HOURS	TOTAL DEGREE HOURS
Western Michigan University <i>Aviation Science & Administration</i>	Accounting I & II	Intro to Aviation	Professional Flight I Theory & Lab	54	124
	Transportation Tech: Policy, Perils & Promise	Aerodynamics & Performance	Aviation Mgmt Intern		
	Interpersonal Communication	Aircraft Systems	Organization Behavior		
	Fluency w/Info Tech	Aviation Safety	Multinat'l Mgmt Entrepreneurship		
	Principles of Micro & Macro	Crew Resource Mgmt	Airline Strategy		
	Organization of Industries	Aviation Meteorology			
	Business Finance	Advanced Aircraft Systems			
	Physical Geography	Aviation Legislation			
	Intro to Meteorology & Climatology	Airport Planning, Ops, & Admin			
	Tech Communication	Corporate Aviation Mgmt			
	Calculus	Airline Administration			
	Marketing Principles	Int'l Aviation			
	Elementary Physics	Senior Project - Planning			
	General Psychology	Senior Project - Analysis			
	Business Statistics				
Business Enterprise					
CUNY -- York College <i>Aviation Management</i>	Accounting I & II	Intro to Aviation Safety & Security	1 Course from Group I	42-51	120
	Intro to Aviation Business	Intro to Aviation Business	Intro to Mgmt Info Systems		
	Business Law	Airport Planning & Mgmt	Air Cargo Mgmt		

Appendix C

REQUIRED CORE

BACCALAUREATE INSTITUTION	NON-AVIATION CORE	AVIATION CORE	ELECTIVES	GE HOURS	TOTAL DEGREE HOURS
	Business Finance	Aviation Ops	Intro to Emergency Planning & Mgmt		
	Case Studies in Aviation Financial Mgmt	Aviation Policy Seminar	Aviation Internship in the Private Sector		
	Intro to Microeconomics		Weather & Climate		
	Intro to Economic Statistics		1 Course from Group 2		
	Aviation Mktg & Economics		Basic Factors in Int'l Politics		
	Public Administration in the Political Setting		Aviation Law		
			Aviation Internship in the Public Sector		
			1 Course from Group 3		
			Human Factors Psychology		
			Psychology of Terrorism		
			Social Research		
Purdue University <i>Airline Management</i>	Intro to Public Relations	Airline Mgmt		30-40	??
	Principles of Persuasion	Airport Mgmt			
	Intro to Advertising	Air Traffic Control			
	Problems in Public Relations	Aviation Internship			
	Consumer Relations Mgmt	Airport Operations			
	Consumer Behavior	Airport Manager Certification			
	Industrial Safety				
	Automatic Identification & Data Capture				

Appendix C

REQUIRED CORE

BACCALAUREATE INSTITUTION	NON-AVIATION CORE	AVIATION CORE	ELECTIVES	GE HOURS	TOTAL DEGREE HOURS
	Leadership Principles				
	Occupational Safety & Health				
	Human Resource Issues				
	Leadership for Organizational Change				
	Leadership through Teams				
	Leadership in a Global Environment				
Purdue University <i>Airport Management</i>	Intro to Public Relations	Airport Mgmt		30-40	??
	Principles of Persuasion	Airport Manager Certification			
	Intro to Advertising	Airline Mgmt			
	Problems in Public Relations	Air Traffic Control			
	Industrial Safety	Aviation Internship			
	Automatic Identification & Data Capture	Airline Operations			
	Leadership Principles				
	Occupational Safety & Health				
	Human Resource Issues				
	Leadership for Organizational Change				
	Leadership through Teams				
	Leadership in a Global Environment				
	Intro to Environmental Policy				

Appendix C

REQUIRED CORE

BACCALAUREATE INSTITUTION	NON-AVIATION CORE	AVIATION CORE	ELECTIVES	GE HOURS	TOTAL DEGREE HOURS
South Dakota State University <i>BS in Aviation w/Aviation Mgmt Specialization</i>	Physical Climatology & Meteorology + Lab Course	Intro to General Aviation			
	Thru Calculus 2	Private Pilot Theory			
	Principles of Acctg I & II	Private Pilot Flight I & II			
	Principles of Macroecon	Aviation Safety			
	Principles of Microecon	Aviation Weather			
	Physics + Lab Course	Advanced Flight Principles			
	General Psych	Instrument Pilot Theory			
	Intro to Soc	Instrument Flight			
	Business Finance	Commercial Pilot Theory			
	Intro to Computers	Commercial Flight I & II			
	Technical Communication	Aviation Law			
	Physical Geography + Lab Course	Intro to Aviation Admin			
	Fundamentals of Speech	Human Factors in Aviation			
	Legal Environment of Business				
	Organization & Mgmt				

SBS Aviation Major	
Course	Cr Hrs
Aviation Core (All Required = 28 hrs)	
AV 300: The National Aviation System	3
AV 310: Private Pilot Fundamentals	5
AV 530: Aviation Regulations	3
AV 540: Aviation Human Factors	3
AV 550: Aviation Management	3
AV 560: Aviation Safety	3
AV 650: Air Transportation Analysis 1	3
Acctg 211: Intro to Acctg OR Acctg 310: Foundations of Accounting	5
Aviation Electives (Choose 6 hrs)	
AV 322: Aviation History	3
AV 341: Private Pilot Flight Lab I	2
AV 342: Private Pilot Flight Lab II	2
AV 410: Aviation Weather	3
AV 413: Commercial Pilot Fundamentals	3
AV 415: Instrument Flight Fundamentals	3

Proposed SBS Aviation Transportation Major			
Course	Cr Hrs	Course	Cr Hrs
SBS Core (All Required = 30)		Aviation Core (All Required = 28)	
Geog 240: Economic & Social Geography	5	AV 300: The National Aviation System	3
Geog 445: Transportation Security	5	AV 310: Private Pilot Fundamentals	5
Geog 520: Climatology	5	AV 410: Aviation Weather	3
Geog 580: Elements of Cartography	5	Comm 325: Intro to Organizational Communication	5
Geog 607: Fundamentals of Geographic Information Systems	5	AV 530: Aviation Regulation	3
Geog 645: Geography of Transportation	5	AV 550: Aviation Mgmt	3
SBS Electives (Choose 4 courses from 3 categories = 20 hrs)		Aviation Electives (Minimum of 9 hrs)	
Security (at least 1)	5	AV 341 Private Pilot Flight Lab I	2
Individual & Social (at least 1)	5	AV 342 Private Pilot Flight Lab II	2
Institutional (at least 1)	5	AV 413 Commercial Pilot Fundamentals	3
Add'l course from one of categories above	5	AV 415 Instrument Flight Fundamentals	3
		AV 417 Commercial Flight Operations	2
		AV 421 Flight Instruction Methodology	3

SBS Aviation Major	
Course	Cr Hrs
AV 591: Flight Network Analysis & Optimization	3
AV 674: Airport Systems Planning, Design, & Development	3
Aviation Mgmt Courses	
(Choose 6 Courses = 18-22 hrs)	
AV 552: Airport Mgmt	3
AV 591: Flight Network Analysis & Optimization	3
AV 652: Int'l Aviation System	3
AV 654: Airline Marketing	3
AV 674: Airport Systems Planning, Design, & Development	3
AV 750: Air Transportation Analysis II	3
Geog 645: Geography of Transportation	5
Econ 201: Principles of Macroeconomics	5

Aviation Core	28 hrs
Aviation Electives	6 hrs
Aviation Mgmt	18-22 hrs

Proposed SBS Aviation Transportation Major			
Course	Cr Hrs	Course	Cr Hrs
		AV 422 Instrument Instruction Methodology	2
		AV 441 Commercial Flight Lab 1	3
		AV 443 Commercial Pilot Flight Lab 3	3
		AV 446 Commercial Pilot MEL Flight Lab 4	3
		AV 461 Flight Instructor ASEL Flight Lab	3
		AV 462 Flight Instructor Instrument Airplane Flight Lab	3
		AV 463 Flight Instructor AMEL Flight Lab	3
		AV 489 Professional Practices in the Industry	2
		AV 552 Airport Management	3
		AV 591 Flight Network Analysis & Optimization	3
		AV 593 Individual Studies in Aviation	2-5
		AV 650 Air Transportation Analysis	3
		AV 652 The International Aviation System	3
		AV 674 Airport Systems Planning, Design and Development	3
		AV 693 Individual Studies in Aviation	2-5

SBS Core	30 hrs
SBS Electives	20 hrs
Aviation Core	28 hrs
Aviation Electives	9 hrs

SBS Aviation Major	
Course	Cr Hrs
Total Major	52-56 hrs

Proposed SBS Aviation Transportation Major			
Course	Cr Hrs	Course	Cr Hrs
	Aviation Electives		9 hrs
Total Major			87 hrs

Sample four year plan B.A. Aviation Transportation

Year 1							
Autumn		Winter		Spring			
English 110	5	Math (Dependent on placement)	5	First Natural Science	5		
First Foreign Language	5	Second Foreign Language	5	Third Foreign Language	5		
Aviation 300 (Major)	3	Geography 240 (major)	5	Aviation 310 (major)	5		
College Survey Course	1			Additional Breadth	5		
Quarter Hours	14	Quarter Hours	15	Quarter Hours	20	Yearly Hours	49
Year 2							
Autumn		Winter		Spring			
Fourth Foreign Language	5	Stats 145	5	Aviation 413 (major - fundamentals)	3		
First Arts and Humanities	5	Second Natural Science	5	Second Writing	5		
Geography 520 (major)	5	Pol Sci 201 (major)	5	Second Arts and Humanities	5		
Aviation410 (major)	3						
Quarter Hours	18	Quarter Hours	15	Quarter Hours	13	Yearly Hours	46
Year 3							
Autumn		Winter		Spring			
Geography 645 (major)	5	Second Historical Study	5	Aviation 530 (major)	3		
First Historical Study	5	Comm 325 (major)	5	First Social Science	5		
Geography 607 (major)	5	Third Natural Science	5	Geography 445 (major)	5		
Aviation 415 (major - fundamentals)	3			Aviation 441 (major - flight lab)	3		
Quarter Hours	18	Quarter Hours	15	Quarter Hours	16	Yearly Hours	49
Year 4							
Autumn		Winter		Spring			
Geography 580 (major)	5	Aviation 560 (major)	3	Aviation 650 (major)	3		
Contemporary World	5	Psych 309 (major)	4	International Studies 553 (major)	5		
Aviation 550 (major)	3	Econ 348 (major)	5	Second Social Science	5		
Additional GEC Breadth	5						
Quarter Hours	18	Quarter Hours	12	Quarter Hours	13	Yearly Hours	43
						Total Hours	187

TRANSMITTAL HISTORY
SBS AVIATION TRANSPORTATION MAJOR REVISION

CCI Social, Behavioral, Biological, Mathematical and Physical Sciences Subcommittee
July 19, 2010--E-vote

From: Vankeerbergen, Bernadette
To: "fredal.1@osu.edu"; "daniels.7@osu.edu"; "lyvers-peffer.1@osu.edu"; "gupta.229@osu.edu"; Bitters, Todd; Breitenberger, Caroline; Haddad, Deborah; "mummy.1@osu.edu"; Cohen, Jeffrey; "zerby.8@osu.edu"
Cc: Eakins, Barbara; Gustafson, Terry; Vankeerbergen, Bernadette
Subject: Sciences CCI Subcommittee E-Vote Results
Date: Monday, July 19, 2010 3:15:15 PM
Attachments: SBS Aviation Transportation Major.doc
Aviation Transportation 4 year plan.xls
Existing vs Proposed Aviation Major.xls

Dear Sciences CCI Subcommittee Members-

Here are the results of the subcommittee's e-vote on History 322 and the revision to the Aviation Major. (You may have realized that the voting period got extended due to several of our members being away from their e-mail during the initial voting period.)

7 members voted:

History 322: unanimously approved

Revision to Aviation Major: approved by all 7 members (4 members approved the course without comments; 3 members voted to approve the revisions with the contingencies expressed by Caroline Breitenberger). Deborah Haddad provided us with revised documents addressing the concerns expressed by Caroline. I am attaching those revised documents to this e-mail.

Please find below the various e-mail feedback that I received concerning the course and the major revision:

I) My votes are:

History 322 -- **APPROVE**

Aviation Major revision-- **APPROVE**

II) I vote to approve both proposals.

III) I vote to approve History 322 for the Diversity US category of the GEC.

I have some questions about the Aviation major revision:

First, I think the rationale makes sense, and the structure of the major is logical. Students completing this major will be well-prepared for various careers in and related to the aviation industry.

However, there are discrepancies in the course lists that need to be resolved, for example:

1. Many of the Aviation courses have different names than are currently listed in the catalog – are they already changed, or are course change forms being submitted?
2. The Geography courses listed under the "Institutional" category of the SBS electives (especially 450, 470, 647) do not seem to fit the stated rationale of,

“issues surrounding international law, governmental oversight, employment legislation, and effective business communication.”

(I can see how maybe Geog

635 – Globalization and Environment might fit in this category.)

3. The SBS elective lists in Appendix A and B are very different from each other and need to be reconciled.

4. Comm 325 is listed as part of the Aviation core in Appendix B, but it is included with the “Institutions” SBS electives in Appendix A. (and, is it “Institutional” or “Institutions?”)

These are all minor, and I vote to approve the major revision with the contingency that the above issues be addressed.

IV) you can count me as approval

V) I approve the History Diversity status, and also approve the Aviation revisions, with the contingencies that Caroline mentioned, all of which really have mostly to do with consistency in language (course names: are they already changed or are there proposals for name changes, or is this an error? Area name: is it Institutions or Institutional. Seems minor but it should be clear and consistent for students. Elective lists in appendices need to be reconciled. The final one, the SBS course listings, might be more serious. Maybe they just need to clarify how these courses fit into the institutions/Institutional category). Like Caroline, I'm happy to approve this with contingency that they correct these details.

VI) I approve the proposed changes to History 322 (Diversity US GEC).
I also approve the revisions to the Aviation Major.

VII) I vote yes on History 322 for the Diversity US category of the GEC and I'm OK with the Aviation major revision with Caroline's contingencies. (Thanks to Caroline for being so thorough.)

Thank you all for voting and enjoy the rest of the summer!

Best,

Bernadette

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