



# Academic Notes

March 25, 2013

AN 2012-2013

## ACADEMIC NOTES PUBLICATION SCHEDULE

Below is the publication schedule for the electronic copy of *Academic Notes* through May 6, 2013. All submissions for inclusion in *Academic Notes* are due in the Office of Academic Affairs no later than 11:00 a.m. on the Deadline for Items date shown below. Submissions must be in hard copy along with an email, zip drive, or CD with the same information. The electronic version must be formatted either in Word with pages with signatures scanned and inserted as a picture OR PDF saved as text and image. (Do NOT send PDF just saved as an image.) Information submitted to *Academic Notes* that is not accompanied by an electronic version or that is incomplete or unusable will be returned to the appropriate office. *Academic Notes* is available using Acrobat Reader at [http://www.indstate.edu/academicaffairs/academic\\_notes.htm](http://www.indstate.edu/academicaffairs/academic_notes.htm)

During the summer months, *Academic Notes* is published every other week.

If you have questions, please contact Yvonne Russell in Academic Affairs, extension 3662.

## ACADEMIC NOTES PUBLICATION SCHEDULE FOR SPRING 2013

<u>Deadline for Items</u>	<u>Issue Date</u>
March 20	April 1
March 27	April 8
April 3	April 15
April 10	April 22
April 17	April 29
April 24	May 6

## CURRICULUM

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## **UNDERGRADUATE PROPOSALS**

### **NEW COURSES**

#### **BAYH COLLEGE OF EDUCATION: CDCSEP**

##### **COUN 425 - Career Development for Women**

**3 credits**

This course covers the spectrum of career development issues and theories as applied to women in the modern workplace. Issues of gender role expectations, the history of women’s work in the United States, and career decision making for women will be explored.

*A-F Grading*

*Effective term: Fall 2013*

#### **COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics**

##### **CHEM 101 – Preparatory Chemistry**

3 credits

An introduction to basic principles of chemistry. Topics covered include the structure and composition of atoms and molecules, chemical reactions and stoichiometry, chemical nomenclature, and problem-solving strategies. This course has no laboratory component. It is intended for students who need extra preparation before enrolling in CHEM 105. This course is not intended to serve as a chemistry cognate course in any major.

**Prerequisite:** MATH 015 minimum grade of C, or Maple TA score of 7.

*A-F Grading*

*Effective term: Spring 2014*

### **COURSE REVISIONS**

#### **COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Kinesiology, Recreation, and Sport**

##### **PE 179 - Contemporary Activities**

1 credits

Content of this course will vary, according to new activities, developing interests, and expertise of faculty.

*Add repeatable to:*

**PE 179 - Contemporary Activities**

1 credits

Content of this course will vary, according to new activities, developing interests, and expertise of faculty.

**Repeatable:** May be repeatable with change in course content.

*A-F Grading*

*Effective term: Spring 2014*

## **GRADUATE PROPOSALS**

### **NEW COURSES**

**COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Advanced Practice Nursing**

**APN 622- Advanced Physical Assessment**

2 credits

This course for non-clinical credit provides a framework for systematic data collection, documentation, and communication of health care data. A holistic approach facilitates analysis of factors integral in health and illness of the individual/family. Two classroom hours per week.

*A-F Grading*

*Effective term: Fall 2013*

### **COURSE REVISIONS**

**COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Advanced Practice Nursing**

**NURS 692 - Individual/Directed Study in Advanced Nursing**

1-3 credits

Opportunities are provided for supervised/directed and independent study in selected areas of advanced nursing practice. Research and clinical practice are based upon the needs of the student.

*Change prefix to:*

**APN 692 - Individual/Directed Study in Advanced Nursing**

1-3 credits

Opportunities are provided for supervised/directed and independent study in selected areas of advanced nursing practice. Research and clinical practice are based upon the needs of the student.

*A-F Grading*

*Effective term: Spring 2014*

**COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Medicine and Rehabilitation**

**PHTH 601 - Advanced Human Anatomy**

8 credits

This course introduces the student to advanced concepts of human anatomy and its relationship with normal and pathological physiology of the body systems in preparation for clinical practice as a physical therapist. This course includes theory and laboratory components

**Prerequisites:** Admission to the Doctor in Physical Therapy program

**Co-requisites:** PHTH 600

*Change description to:*

**PHTH 601 - Advanced Human Anatomy**

8 credits

This course introduces the student to advanced concepts of human anatomy and its relationship with normal and pathological physiology of the body systems. This course includes theory and laboratory components.

**Prerequisites:** Admission to the Doctor in Physical Therapy program or Occupational Therapy program.

*A-F Grading*

*Effective term: Spring 2014*

**PHTH 620 - Applied Neuroscience I**

3 credits

This course will focus on the study of the structure, organization, and function of the nervous system. Emphasis is on the sensory and motor systems involved in motor control and on basic knowledge required for clinical practice as a physical therapist.

**Prerequisites:** Admission to the Doctor in Physical Therapy program or Occupational Therapy program. PHTH 602; 604; 605

**Corequisites:** PHTH 621; 622

*Change description to:*

**PHTH 620 – Applied Neuroscience I**

3 credits

This course will focus on the study of the structure, organization, and function of the nervous system. Emphasis is on the sensory and motor systems involved in motor control and on basic knowledge required for clinical practice.

**Prerequisites:** PHTH 601

*A-F Grading*

*Effective term: Spring 2014*

**PROGRAM REVISIONS**

**COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Advanced Practice Nursing**

**Nursing M.S. (35-51 credits)**

**CIP Code: 513801 Major Code: MS 9460/94C3**

**Brief Summary:**

American Association of Colleges of Nursing (AACN) in Essentials of Master's Education for Advanced Practice Nursing and for Nurse Educator Certification Criteria require that graduates

of an advanced practice nursing program for educators have competencies in health assessment, physiology/pathophysiology, and pharmacology to strengthen the graduate's scientific background and facilitate his/her understanding of nursing and health-related information. The "three P's" as they are often referred to consists of courses from graduate programs, two of the courses are all ready in place one within the Department of Advanced Practice Nursing Curricula; Advanced Pharmacology and the other Advanced Pathophysiology within the Department of Biology. Therefore it is proposed that both electives be replaced with the required courses of Advanced Pathophysiology (BIO633) and Advanced Pharmacology (APN645) and that an additional 2 credit hour Advanced Physical Assessment course without clinical hours (to be developed) be added to the total concentration requirements for the MS degree seeking students. The concentration leading to a master's degree would therefore meet the AACN Essentials of Master's Education criteria.

### **Student Learning:**

A program preparing individuals for a nurse educator role, in addition to focusing on the competencies in all nine Essential areas, should include course work in curriculum design and development, teaching methodologies, educational needs assessment, and learner-centered theories and methods. Students that are currently enrolled or previously enrolled in the nurse educator concentration often take the advanced pathophysiology and advanced pharmacology courses as their chosen electives. The master's prepared nurse educator differs from the baccalaureate nurse in depth of his/her understanding of the nursing discipline and nursing practice in addition to the added pedagogical skills. Further, in order to teach students, patients, and caregivers regarding health promotion, disease prevention, or disease management, the master's curriculum for the nurse educator builds on baccalaureate knowledge with graduate-level content in the areas of health assessment, physiology/pathophysiology, and pharmacology to strengthen the graduate's scientific background and facilitate his/her understanding of nursing and health-related information. It is therefore proposed that the two guided electives be eliminated and the credit hours added to *Course Work and Practica* as required courses of BIO633 Advanced Pathophysiology and APN645 Advanced Pharmacology. The addition of the Advanced Physical Assessment course would complete the recommended requirement for the "3 P's". The addition of this course and the changes away from the guided electives will be congruent with accreditation standards for master's degree seeking students as nurse educators.

### **Proposed Catalog Copy:**

**Nursing M.S. (35-51 credits)**

**CIP Code: 513801 Major Code:MS 9460/94C3**

Students matriculating a master's of science in nursing have the option of selecting one concentration from among Family Nurse Practitioner, Nursing Administration, or Nursing Education. All students in the major complete the same core course work and a research course in addition to the student's selected concentration.

Core Course Work (9 credits):

- A 3-credit approved statistics course.
- APN 601 - Health Care Perspectives 3 credits
- APN 605 - Nursing Theory Development 3 credits

Research (3 credits):

- 
- APN 633 - Nursing Research 3 credits

Family Nurse Practitioner Concentration

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Course Work and Practica (33 credits):

- 
- BIO 633 - Advanced Pathophysiology 3 credits
  - APN 624 - Health Assessment and Health Promotion for Advanced Nursing Practice 4 credits
  - APN 635 - Family Nurse Practitioner Role I 1 credits
  - APN 644 - Theoretical Foundations of Family Health Care: Management of Common Chronic and Acute Health Problems I 7 credits
  - APN 645 - Pharmacology for Advanced Practice Nurses 3 credits
  - APN 646 - Diagnostic Laboratory for Family Nurse Practitioners 1 credits
  - APN 664 - Theoretical Foundations of Family Health Care: Management of Common Chronic and Acute Health Problems II 8 credits
  - APN 670 - Family Nurse Practitioner Preceptorship 5 credits
  - APN 675 - Family Nurse Practitioner Role II 1 credits

Culminating Experience:

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Choose one from the following:

- 
- APN 697 - Evidence Based Practice for Advanced Practice Nurses 3 credits
  - APN 698R - Culminating Project 1-3 credits
  - APN 699 - Master's Thesis 1-6 credits

Nursing Administration Concentration

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Course Work and Practica (14 credits):

- 
- APN 651 - Theories of Healthcare Administration 3 credits
  - APN 652 - Financial Management for Healthcare Managers 3 credits
  - APN 671 - Administrative Practices in Healthcare Administration 4 credits
  - APN 667 - Nursing Informatics 4 credits

Electives (6 credits):

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Guided electives.

Culminating Experience (3-6 credits):

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Choose one from the following:

- 
- APN 697 - Evidence Based Practice for Advanced Practice Nurses 3 credits
  - APN 698R - Culminating Project 1-3 credits
  - APN 699 - Master's Thesis 1-6 credits

## Nursing Education Concentration

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### Course Work and Practica (22 credits):

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- BIO 633- Advanced Pathophysiology 3 credits
- APN 622 - Health Assessment and Health Promotion for Advanced Nursing Practice 2 credits
- APN 645- Pharmacology for Advanced Practice Nurses 3 credits
- APN 653 - Curriculum Process in Nursing 3 credits
- APN 662 - Measurement and Assessment in Nursing Education 3 credits
- APN 673 - Educational Practices in Nursing 4 credits
- APN 683 - Advanced Clinical Concepts for Nurse Educators 4 credits

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### Culminating Experience :

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Choose one from the following:

- 
- APN 697 - Evidence Based Practice for Advanced Practice Nurses 3 credits
  - APN 698R - Culminating Project 1-3 credits
  - APN 699 - Master's Thesis 1-6 credits

Note:

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Courses in the 500 series are open to undergraduates as \*400 series. Graduate students are required to do additional work of a research nature. A course taken at the 400 level may not be repeated at the 500 level.

*Effective term: Spring 2014*

## **COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Advanced Practice Nursing Nursing Practice, Doctor of CIP Code: 513818 Major Code: 9464**

### **Brief Summary:**

The Department of Advanced Practice Nursing (APN) requests amendment to the admission criteria for the Doctor of Nursing Practice (DNP) Program. This request is an anticipatory response to the need to expand the Doctor of Nursing Practice program thereby providing additional avenues for master's prepared nurses to obtain a terminal degree. The DNP, also referred to as a clinical doctorate, equips nurses with the skills to critically examine their practice and to look for alternative methods for improving care processes and outcomes. The expanded criteria will prepare nurse executives and nurse educators to effectively translate evidence into practice and to function more efficiently given the exponential growth of new knowledge. The expanded DNP admission criteria will allow nurses with a master's of science degree with a major in nursing to enter into the program. The program will provide two additional concentrations of study; 1) Nurse Education and 2) Nurse Executive Leadership. The scholarly

course work will continue to be lead by faculty that mentor students in their final projects that have a variety of foci including family nurse practitioner, nurse education, and nurse administration. The addition of students outside the family nurse practitioner preparation will allow for increased opportunities for doctoral degree attainment for advanced practice nurses interested in earning a clinical based doctorate. In addition, the inclusion of advanced practice nurses outside the family nurse practitioner role will allow for additional inter-professional opportunities in the clinical and educational settings.

Nurse educator shortages at the local, regional, and national level have reached critical levels. Less than 1% of nurses hold a doctoral degree and Indiana has fewer than 0.5% of nurses with a doctoral degree. The low level of doctoral prepared nurses directly impacts the ability of educational institutions to fill vacant faculty positions and it decreases the number of eligible nursing students that can enter into a program of study. Advanced practice nurses with a clinical doctorate can help alleviate this shortage by providing support for nursing programs that emphasize the translation of evidence into practice and clinical excellence. Master's prepared nurses who wish to excel as nurse educators can utilize the DNP degree for seeking much needed opportunities in obtaining their terminal degree and for demonstrating Certified Graduate Nurse Educator (CGNE) competencies. Nursing administrators will have the opportunity to demonstrate achievement of recommended competencies as set forth by the American Nurses Credentialing Center (ANCC), the American Organization of Nurse Executives (AONE). This proposal is a cost-effective plan to add Nurse Educator and Nurse Executive focused nursing students to the current clinically-focused DNP program.

### **Student Learning:**

The DNP graduate preparing for advanced speciality practice at the population, organizational, and/or policy level needs to demonstrate competencies in conducting comprehensive organizational, systems, and /or community assessments to identify aggregate health or system needs; work with diverse stakeholders for inter- or intra- organizational achievement of health related organizational or policy goals; and, design patient-centered care delivery systems or policy level delivery models (ANCC, 2010). Through the combination of courses and learning objectives within the DNP program currently in place within College of Nursing, Health, and Human Services (CONHHS), all students gain knowledge within areas of community health, epidemiology, health policy and leadership, analytical methods, and organizational informatics. The addition of students outside the family nurse practitioner preparation will offer increased opportunities for terminal degree preparation for educators and nurse executive leaders. In light of the National League for Nursing Accrediting Commission's (NLNAC) new requirement for 25% of university faculty to have doctoral preparation, faculty in the APN department and members of the DNP expansion subcommittee are reassured that the amendment to admission criteria is necessary and timely. Many colleges and universities fail to meet this new NLNAC accreditation requirement due to the shortage of nursing faculty. The removal of barriers to obtaining doctoral preparation will open up opportunities for faculty to obtain their DNP within five semesters. The addition of master's prepared nurses with varying backgrounds and areas of interest will increase and improve knowledge transfer given incremental increases in class diversity and providing increased opportunities for interprofessional collaboration. Formal Student learning outcomes for the program will remain unchanged. Program effectiveness can be appreciated from the perspective of increased co-learner educational diversity and employment



variations experiences within the student population. Utilization of established courses that have been implemented over the last two and one-half years provides learning objectives that are meaningful and effective for all students to meet program outcomes while breaking down educational silo's that have existed for many years in education.

### **Proposed Catalog Copy:**

#### **Nursing Practice, Doctor of (39 credits)**

**CIP Code: 513818 Major Code: 9464**

The Doctor of Nursing Practice Program requires 85 post baccalaureate graduate credit hours and a total of 1,200 hours of supervised clinical preceptorship. A post-master's nurse who enters the Doctor of Nursing Practice Program is required to complete 39 credit hours.

Students must have a completed master's degree with a major in nursing to be eligible to enroll in the program. They may apply a maximum of 48 graduate credits and 700 hours of formal clinical supervised hours from their master's degree toward the doctoral degree requirements. Consistent with other doctor of nursing practice programs, the American Association of Colleges of Nursing, and the National Organization of Nurse Practitioner Faculty, there is no dissertation requirement.

Applicants must meet the admission requirements for the College of Graduate and Professional Studies and have the following requirements:

- Earned master's degree in nursing from a nationally accredited program of nursing.
- Minimum of two years nursing experience.
- GPA 3.0 or above on a 4.0 scale in graduate studies
- Current unencumbered licensure as a registered nurse in the state in which practice will occur for all applicants.
- National certification for all nurse practitioner applicants.
- Successful completion of a graduate statistics and research courses.
- Resume or CV.
- Three letters of reference pertaining to academic ability (One academic letter and two professional).
- DNP Goal Statement.
- Non-Nurse Practitioner applicants will submit a digital portfolio of professional practice that highlights and provides evidence of educational, professional and community activities, including scholarly work(s).

- Telephone or in-person interview may be required as part of the admission process
- If English is second language, evidence of TOEFL score  $\geq 550$
- Meet all health clearance, criminal background checks, and other requirements for clinical practice

**Core Courses (12 credits):**

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- AHS 612 - Epidemiology 3 credits
- APN 822 - Organizational Informatics 3 credits
- APN 825 - Analytical Methods 3 credits
- APN 842 - Health Policy Leadership 3 credits

**Cognate Courses (9 credits):**

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- APN 810 - Community Health Planning 3 credits
- APN 840 - Culturally Competent Care 3 credits
- APN 850 - Rural/Underserved Residency 3 credits

**Guided Elective (3 credits):**

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Nursing education (curriculum, texts, methods) or nursing administration (finance) 3 credits

**Nursing Scholarship of Practice Courses (15 credits):**

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- APN 891 - Scholarly Project I 3 credits
- APN 892 - Scholarly Project II 3 credits
- APN 893 - Scholarly Project III 3 credits
- APN 894 - Scholarly Project IV 3 credits
- APN 895 - Capstone Scholarly Project 3 credits

*Effective Term: Fall 2013*

**COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Medicine and Rehabilitation**

**Physician Assistant Studies M.S. (93 credits)**

**CIP Code: 510912 Major Code: A174**

### **Brief Summary:**

Due to the increase in applicant pool size to over 400 applicants per year, the prerequisites need to be restructured to increase selectiveness in the applicants. The applicant needs to have a minimum of a C+ in all prerequisite classes, required completion of medical terminology course, a minimum GPA (both science and overall) of 3.0 and only one pending course at time of application.

### **Student Learning:**

An evaluation of the last two years in applications and the applicant pool has identified that over 400 individuals apply, and individuals with less than a C+ do not have the requisite GPA to enter the program. Altering the prerequisites will aid in better selecting students who can be successful in the PA program. Change in prerequisites will ensure that the students that apply will have a clear understanding of the guidelines for application. The students will be aware prior to completion of the CASPA application (PA application database used by accredited programs) the expectations of the ISU PA Program is prior to submission.

### **Proposed Catalog Copy:**

#### **Physician Assistant Studies M.S. (93 credits)**

**CIP Code: 510912 Major Code: A174**

In addition to admission requirements for the College of Graduate and Professional Studies, the Physician Assistant Program requires students:

1. To have earned a baccalaureate degree from a regionally accredited institution of higher learning.
2. Hold a baccalaureate degree from institutions outside the United States to have completed at least one year or 24 credits of additional course work at a college or university in the United States prior to application.
3. Whose native language is not English to have a minimum TOEFL score of 550.
4. To submit three letters of recommendation and a personal statement explaining why she or he wants to become a physician assistant.
5. To show proficiency in medical terminology. The program offers a self-study module as needed and, if needed, must be completed prior to matriculation.
6. To obtain health care experience. For those who do not already have said experience, Indiana State University offers PASS 500X to facilitate acquiring needed experience prior to matriculation. This is not a requirement for application or admission.

**Prerequisite course work and requirements are as follows. All completed courses must have a grade of C+ or better:**

1. At least five biological science courses of three or more credits each must be completed.

Of these five courses, at least one must be in anatomy, one in physiology, and one in microbiology. Courses in human anatomy and human physiology are preferred to courses of a more general nature, and courses with laboratories are preferred. To fulfill the remaining biological science course prerequisite, courses such as cell biology, molecular biology, genetics, pharmacology, embryology, histology, or immunology are recommended. While none of the latter courses are specifically required, they provide a good foundation for the study of medicine.

2. At least two organic chemistry courses with laboratories of four credits each.
3. At least one statistics course of at least two credits.
4. At least one medical terminology course of at least two credits.
5. Minimum GPA of 3.0 in science and overall.
6. No more than one pending prerequisite course at the time of application.

## **Year One**

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### **Spring Semester**

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- AHS 617 - Health Behavior Theories 3 credits
- PASS 610 - Bioscience 4 credits
- PASS 611 - Physical Diagnosis 2 credits
- PASS 613 - Clinical Science 3 credits
- PASS 617 - Introduction to Physician Assistant Practice 2 credits
- PASS 619 - Cardiopulmonary 2 credits

## **Year Two**

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### **Summer Session**

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- PASS 620 - Clinical Medicine I 4 credits
- PASS 622 - Specialty Care I 2 credits
- PASS 623 - Specialty Care II 2 credits
- PASS 624 - Pharmacotherapeutics I 3 credits
- PASS 626 - Clinical Management I 3 credits

### **Fall Semester**

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- PASS 630 - Clinical Medicine II 4 credits

- PASS 632 - Specialty Care III 2 credits
- PASS 633 - Specialty Care IV 2 credits
- PASS 634 - Pharmacotherapeutics II 3 credits
- PASS 635 - Applied Research 2 credits
- PASS 636 - Clinical Management II 3 credits

### **Spring Semester**

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- PASS 643 - Clinical Skills 3 credits
- PASS 670 - Family Medicine Rotation 3 credits
- PASS 671 - Emergency Medicine Rotation 3 credits
- PASS 672 - General Surgery Rotation 3 credits

### **Year Three**

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#### **Summer Session**

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- PASS 655 - Clinical Project 3 credits
- PASS 673 - Women's Health Rotation 3 credits
- PASS 674 - Internal Medicine Rotation 3 credits
- PASS 675 - Geriatrics Rotation 3 credits

#### **Fall Semester**

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- PASS 676 - Behavioral Medicine Rotation 3 credits
- PASS 677 - Pediatrics Rotation 3 credits
- PASS 678 - Floating Rotation credits
- PASS 679 - Elective Rotation I 3 credits

#### **Spring Semester**

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- PASS 680 - Elective Rotation II 3 credits
- PASS 686 - Clinical Management III 3 credits
- PASS 687 - Physician Assistant Practice Transition 4 credits

## **UNDERGRADUATE APPROVALS**

### **COURSE REVISIONS**

#### **UNIVERSITY COLLEGE/SASC**

##### **UNIV 101 – Learning in the University Community**

1-3 credits

The First Year Seminar supports the transition of first year students as they enter ISU. Upon completion of the course, students will be able to demonstrate the knowledge, skills, and behaviors critical for academic and personal success. Students will acquire these abilities as they are introduced to the foundations of inquiry - the interests, assumptions, methodologies, and potential academic and career tracks associated with the disciplines at ISU.

*A-F Grading*

*Effective term: Summer1 2013*

### **CORRECTIONS**

**The following corrections are reflected in \*bold and italics:**

## **UNDERGRADUATE APPROVALS**

#### **COLLEGE OF TECHNOLOGY: Aviation Technology**

##### **Aviation Management Major (76 credits)**

**CIP Code: 490104 Major Code: D532**

##### **Brief Summary:**

Changes are being made to meet the 120-credits requirement. COMM 269 is being dropped as the Communications department has changed the course number and prerequisite.

##### **Approved Catalog Copy:**

##### **Aviation Management Major (64-74 credits)**

**CIP Code: 490104 Major Code: D532**

##### **Required courses (49 credits):**

##### **Aviation Basic Core Courses (27 credits):**

- AVT 130 - Introduction to Aviation Technology 2 credits
- AVT 141 - Private Pilot Theory 6 credits
- AVT 223 - Aviation Weather Services 3 credits
- AVT 307 - Airport Operations 3 credits
- AVT 325 - Crew Resource Management 3 credits
- AVT 403 - Air Carrier Operations 3 credits
- AVT 405 - Aviation Law 3 credits
- AVT 425 - Aviation Safety Management Systems 3 credits
- AVT 430 - Aviation Career Planning 1 credits

**Aviation Management Core Courses (22 credits):**

- AVT 143 - Introduction to Flight 1 credits
- AVT 205 - General Aviation Operations 3 credits
- AVT 305 - Air Transportation 3 credits
- AVT 309 - Aviation Security and Emergency Planning 3 credits
- AVT 323 - Air Traffic Control Systems 3 credits
- AVT 471 - Topics for Aviation Management Majors 1-6 credits (only 3 credits required.)
- AVT 491 - Airport Planning 3 credits
- Upper division aviation technology courses 3 credits

**University Minor (15-25 credits)**

All Aviation Management majors must complete one ISU minor.

**Document Requirement:**

A copy of the student's valid and current Passport must be on file in the Aviation Department prior to the awarding of a degree.

**Note:**

- All aviation management students are encouraged to complete their private pilot certificate.
- All aviation management students must pass each aviation course used in their degree with a C grade (2.0) or higher.

***\*Effective term: Fall 2013***