Minutes of the Graduate Council  
May 4, 2010  
As approved by the Graduate Council, September 7, 2010


Graduate School staff present: S. Fox, J. Guikema, K. Lease, C. Shanklin, S. Schlender

Guests: P. Ackerman, S. Alavi, D. Mrozek, A. Raef, D. Renter, D. Troyer, D. Youngman

1. Opening remarks  
Carol Shanklin welcomed new members and presented certificates of appreciation to members that completed their terms. She thanked everyone for their contributions to another successful year.

2. Minutes of the April 6, 2010 meeting were approved as presented.

3. Graduate School Actions and Announcements  
The following appointments for graduate faculty membership were approved by the Dean of the Graduate School:

<table>
<thead>
<tr>
<th>Non-Graduate Faculty to Teach Graduate Courses (emergency approval)</th>
<th>Date approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Position</td>
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</tr>
<tr>
<td>Gary Whit</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Beverly Page</td>
<td>Instructor</td>
</tr>
<tr>
<td>Dana Reinert</td>
<td>Instructor</td>
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<tr>
<th>Membership</th>
<th>Date approved</th>
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<tr>
<td>Name</td>
<td>Position</td>
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<tr>
<td>Leah McKeeman</td>
<td>Assistant Professor</td>
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4. Academic Affairs Committee – Frank White, Chair  
On behalf of the Academic Affairs Committee, Frank White proposed to approve the following faculty members for non-graduate faculty to teach graduate courses (one-year approval), graduate faculty associate, graduate faculty membership, and certification only. The motion passed.

<table>
<thead>
<tr>
<th>Non-Graduate Faculty to Teach Graduate Courses (one-year approval)</th>
<th>Department/Program</th>
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<tr>
<td>Name</td>
<td>Position</td>
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<tr>
<td>Yvonne Amanor-Boadu</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Sonya Britt</td>
<td>Assistant Professor</td>
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Graduate Faculty Associate

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department/Program</th>
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<tbody>
<tr>
<td>Laurel Dinkel</td>
<td>Instructor</td>
<td>Gerontology</td>
</tr>
<tr>
<td>Role:</td>
<td>teaching graduate courses</td>
<td></td>
</tr>
<tr>
<td>C.R. Macchi, Jr.</td>
<td>Research Asst Professor</td>
<td>Family Studies and Human Services</td>
</tr>
<tr>
<td>Role:</td>
<td>teaching graduate courses and supervisory committee membership</td>
<td></td>
</tr>
<tr>
<td>David E. Thompson</td>
<td>Assistant Professor</td>
<td>Family Studies and Human Services</td>
</tr>
<tr>
<td>Role:</td>
<td>teaching graduate courses</td>
<td></td>
</tr>
<tr>
<td>Kelly Welch</td>
<td>Assistant Professor</td>
<td>Family Studies and Human Services</td>
</tr>
<tr>
<td>Role:</td>
<td>teaching graduate courses</td>
<td></td>
</tr>
<tr>
<td>Ann Holliman-Krueger</td>
<td>Instructor</td>
<td>Elementary Education</td>
</tr>
<tr>
<td>Role:</td>
<td>teaching graduate courses</td>
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Membership

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department/Program</th>
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<tbody>
<tr>
<td>Howard Hahn</td>
<td>Assistant Professor</td>
<td>Landscape Architecture/Regional and Community Planning</td>
</tr>
<tr>
<td>Jon Hunt</td>
<td>Assistant Professor</td>
<td>Landscape Architecture/Regional and Community Planning</td>
</tr>
<tr>
<td>Morgan Morgan</td>
<td>Adj. Assistant Professor</td>
<td>History</td>
</tr>
<tr>
<td>James H. Willbanks</td>
<td>Professor</td>
<td>History</td>
</tr>
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Certification

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<tr>
<th>Name</th>
<th>Position</th>
<th>Department/Program</th>
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<tbody>
<tr>
<td>Lotta Larson</td>
<td>Assistant Professor</td>
<td>Elementary Education</td>
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Course and curriculum

On behalf of the Academic Affairs Committee, Frank White proposed to approve the following course and curriculum changes, drops, and additions. The motion passed.

Non-Expedited Course Changes:

<table>
<thead>
<tr>
<th>Current Course Description</th>
<th>Proposed Course Description</th>
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<tbody>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td><strong>ENTOM 635. Introduction to Plant Resistance of Pests.</strong> (2) I, in even years. Basic concepts of the biology, ecology, genetics and breeding for pest resistance in plants. Four hours lec. and discussion a week. To meet first half of semester. Pr.: ENTOM 300 or PLPTH 500 or ENTOM 312 and ENTOM 313, and one course in plant or animal genetics.</td>
<td><strong>ENTOM 732. Introduction to Plant Resistance of Pests.</strong> (2) I, in even years. Basic concepts of the biology, ecology, genetics and breeding for pest resistance in plants. Four hours lec. and discussion a week. To meet first half of semester. Pr.: ENTOM 300 or PLPTH 500 or ENTOM 312 and ENTOM 313, and one course in plant or animal genetics. Cross-listed as PLPTH 732 and AGRON 732.</td>
</tr>
<tr>
<td><strong>GRSC 704. Practicum in Bakery Science.</strong> (1) One week intensive course during the January intersession. Lectures and hands-on laboratory experience with commercial production scale baking equipment for breads and rolls, cookies and crackers, and cakes and sweet doughs. Pr.: Upperclass bakery science and management majors or permission of the instructor. Rec. Pr.: GRSC 635 and GRSC 636.</td>
<td><strong>GRSC 601. Practicum in Bakery Science.</strong> (1) One week intensive course during the January intersession. Lectures and hands-on laboratory experience with commercial production scale baking equipment for breads and rolls, cookies and crackers, and cakes and sweet doughs. Pr.: Upperclass bakery science and management majors or permission of the instructor. Rec. Pr.: GRSC 635 and GRSC 636.</td>
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<tr>
<td><strong>GRSC 720. Extrusion Processing for Feed and Food Industries.</strong> (4) I, in even years. The course is designed to provide the student with an understanding of extrusion technology and the ability to apply it to product development and production through a “hands-on” approach. Major emphasis is on laboratory exercises in which students will operate pilot scale extrusion equipment to produce readily-recognizable commercial products such as cheese curls, breakfast cereals, pasta, pet food, etc. Emphasis will also be placed on process and product development, analysis, and problem solving techniques. Three hours lec. plus one three-hour lab a week. Rec. Pr.: STAT 325 and GRSC 602.</td>
<td><strong>GRSC 620. Extrusion Processing for Feed and Food Industries.</strong> (4) I, in even years. The course is designed to provide the student with an understanding of extrusion technology and the ability to apply it to product development and production through a “hands-on” approach. Major emphasis is on laboratory exercises in which students will operate pilot scale extrusion equipment to produce readily-recognizable commercial products such as cheese curls, breakfast cereals, pasta, pet food, etc. Emphasis will also be placed on process and product development, analysis, and problem solving techniques. Three hours lec. plus one three-hour lab a week. Rec. Pr.: STAT 325 and GRSC 602.</td>
</tr>
<tr>
<td><strong>GRSC 730. Milling Science II.</strong> (2) I. Advanced study of the entire gradual reduction system of wheat flour milling and the many unit process systems that constitute the milling system. The theory and practice of mill control are studied in detail. Processing of other cereal grains and oil seeds are covered as well as general mill management. Two one-hour lec. a week. Rec. Pr.: GRSC 500, STAT 325, PHYS 113 and MATH 205.</td>
<td><strong>GRSC 680. Milling Science II.</strong> (2) I. Advanced study of the entire gradual reduction system of wheat flour milling and the many unit process systems that constitute the milling system. The theory and practice of mill control are studied in detail. Processing of other cereal grains and oil seeds are covered as well as general mill management. Two one-hour lec. a week. Rec. Pr.: GRSC 500, STAT 325, PHYS 113 and MATH 205.</td>
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<td><strong>GRSC 731. Milling Science II Laboratory.</strong> (2) I. The processes for milling other grains such as corn, oats, sorghum, different classes of wheat, and rye are studied in the laboratory and by practice on small scale milling units. Concepts of material handling properties of grain products and material handling equipment in dry milling operations will be presented. Concepts of statistical process control and spread sheet modeling in the decision making process will be introduced. Six hours lab a week. Rec. Pr.: GRSC 680 or concurrent enrollment, STAT 325, PHYS 113 and MATH 205.</td>
<td><strong>GRSC 681. Milling Science II Laboratory.</strong> (2) I. The processes for milling other grains such as corn, oats, sorghum, different classes of wheat, and rye are studied in the laboratory and by practice on small scale milling units. Concepts of material handling properties of grain products and material handling equipment in dry milling operations will be presented. Concepts of statistical process control and spread sheet modeling in the decision making process will be introduced. Six hours lab a week. Rec. Pr.: GRSC 680 or concurrent enrollment, STAT 325, PHYS 113 and MATH 205.</td>
</tr>
<tr>
<td>Current Course Description</td>
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<tr>
<td><strong>GRSC 734. Milling Processing Technology Management.</strong> (3) I. A capstone course for milling science and management students. The objective is to familiarize students with the structure of the U.S. flour milling industry, the managerial and processing operations involved in the management of a flour mill, modeling simulation techniques for flour milling operations and investment projects and evaluation of new milling technologies. Two hours lec. and three hours of lab per week. Rec. Pr.: GRSC 730.</td>
<td><strong>GRSC 684. Milling Processing Technology Management.</strong> (3) II. A capstone course for milling science and management students. The objective is to familiarize students with the structure of the U.S. flour milling industry, the managerial and processing operations involved in the management of a flour mill, modeling simulation techniques for flour milling operations and investment projects and evaluation of new milling technologies. Two hours lec. and three hours of lab per week. Rec. Pr.: GRSC 680.</td>
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<tr>
<td><strong>GRSC 737. Baking Science II.</strong> (3) I. Course includes study of physical, chemical, and functional properties of ingredients and processes used in production of bakery products, including cakes, cookies, doughnuts, breads and related products. Shelf-life control and packaging of baked products is also discussed. Total quality programs, specification programs and management of distribution and purchasing systems will also be included in lectures. Three hours of lec. a week. Rec. Pr.: GRSC 635.</td>
<td><strong>GRSC 637. Baking Science II.</strong> (3) II. Course includes study of physical, chemical, and functional properties of ingredients and processes used in production of bakery products, including cakes, cookies, doughnuts, breads and related products. Shelf-life control and packaging of baked products is also discussed. Total quality programs, specification programs and management of distribution and purchasing systems will also be included in lectures. Three hours of lec. a week. Rec. Pr.: GRSC 635.</td>
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<tr>
<td><strong>GRSC 738. Baking Science II Lab.</strong> (1) I. A laboratory course to accompany Baking Science II (GRSC 737). Exercises and experiments in production of chemically-leavened and yeast-leavened bakery foods including various cakes, cookies, doughnuts, bagels, icings, and fillings. Three hours of lab a week. Rec. Pr.: GRSC 737 or concurrent enrollment.</td>
<td><strong>GRSC 638. Baking Science II Lab.</strong> (1) II. A laboratory course to accompany Baking Science II (GRSC 637). Exercises and experiments in production of chemically-leavened and yeast-leavened bakery foods including various cakes, cookies, doughnuts, bagels, icings, and fillings. Three hours of lab a week. Rec. Pr.: GRSC 637 or concurrent enrollment.</td>
</tr>
<tr>
<td><strong>GRSC 750. Feed Technology II.</strong> (4) I. Advanced study of engineering principles applicable to flour and feed plant operations, materials handling, equipment selection, and processing systems. Three hours of lec. per week and three hours of laboratory per week. Rec. Pr.: GRSC 510 or 500, PHYS 114 or 214, and a course in statistics and computer applications.</td>
<td><strong>GRSC 690. Feed Technology II.</strong> (4) II. Advanced study of engineering principles applicable to flour and feed plant operations, materials handling, equipment selection, and processing systems. Three hours of lec. per week and three hours of laboratory per week. Rec. Pr.: GRSC 510 or 500, PHYS 114 or 214, and a course in statistics and computer applications.</td>
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<tr>
<td><strong>PLPTH 635. Introduction to Plant Resistance to Pests.</strong> (2) I, in even years. Basic concepts of the biology, ecology, genetics and breeding for pest resistance in plants. Four hours lec. and discussion a week. To meet first half of semester. Pr.: ENTOM 300 or PLPTH 500 or ENTOM 312 and ENTOM 313, and one course in plant or animal genetics. Same as ENTOM 635.</td>
<td><strong>PLPTH 732. Introduction to Plant Resistance to Pests.</strong> (2) I, in even years. Basic concepts of the biology, ecology, genetics and breeding for pest resistance in plants. Four hours lec. and discussion a week. To meet first half of semester. Pr.: ENTOM 300 or PLPTH 500 or ENTOM 312 and ENTOM 313, and one course in plant or animal genetics. Cross-listed as ENTOM 732 and AGRON 732.</td>
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### Expedited Course Changes:

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<tr>
<td><strong>ART 635 – Advanced Printmaking.</strong> (3) I, II.</td>
<td><strong>ART 635 – Advanced Printmaking.</strong> (3-6) I, II.</td>
</tr>
<tr>
<td>Advanced work in relief, serigraphy, lithography, and intaglio. Note: Six hours lab. May be taken for six semesters. Pr.: ART 235.</td>
<td>Advanced work in relief, serigraphy, lithography, and intaglio. Note: Six hours lab. May be taken for a maximum of 18 credits. Pr.: ART 235.</td>
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</tr>
<tr>
<td><strong>ART 636 – Color Printmaking Workshop.</strong> (1-6) I, II.</td>
<td><strong>ART 636 – Color Printmaking Workshop.</strong> (3-6) I, II.</td>
</tr>
<tr>
<td><strong>ART 636 – Color Printmaking Workshop.</strong> (3-6) I, II.</td>
<td><strong>ART 636 – Color Printmaking Workshop.</strong> (3-6) I, II.</td>
</tr>
<tr>
<td><strong>ART 650 – Advanced/Senior Painting Studio.</strong> (3) I, II.</td>
<td><strong>ART 650 – Advanced/Senior Painting Studio.</strong> (3-6) I, II.</td>
</tr>
<tr>
<td>Individualized studio work in varied painting media. Focus on strengths and exploration of media for personal expression. Emphasis for graduating seniors will be on producing a cohesive body of work in preparation of BFA Exhibition. Note: May be taken for 12 credits total. Six hours studio. Pr.: ART 235 and ART 570.</td>
<td>Individualized studio work in varied painting media. Focus on strengths and exploration of media for personal expression. Emphasis for graduating seniors will be on producing a cohesive body of work in preparation of BFA Exhibition. Note: May be taken for 12 credits total. Six hours studio. Pr.: ART 561 and ART 570.</td>
</tr>
<tr>
<td><strong>ART 650 – Advanced/Senior Painting Studio.</strong> (3-6) I, II.</td>
<td><strong>ART 650 – Advanced/Senior Painting Studio.</strong> (3-6) I, II.</td>
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<tr>
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</tr>
<tr>
<td><strong>ART 660 – Sculpture III.</strong> (4-5) I, II.</td>
<td><strong>ART 660 – Sculpture III.</strong> (3-6) I, II.</td>
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<tr>
<td>Continuation of Sculpture II. Further exploration of media and technique, emphasizing the development of individual direction and expression. Primarily for undergraduate sculpture majors. Note: May be taken for four terms. Pr.: ART 645.</td>
<td>Continuation of Sculpture II. Further exploration of media and technique, emphasizing the development of individual direction and expression. Primarily for undergraduate sculpture majors. Note: May be taken for a maximum of 9 credits. Pr.: ART 645.</td>
</tr>
<tr>
<td><strong>ART 660 – Sculpture III.</strong> (3-6) I, II.</td>
<td><strong>ART 660 – Sculpture III.</strong> (3-6) I, II.</td>
</tr>
<tr>
<td>Continuation of Sculpture II. Further exploration of media and technique, emphasizing the development of individual direction and expression. Primarily for undergraduate sculpture majors. Note: May be taken for a maximum of 9 credits. Pr.: ART 645.</td>
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</tr>
<tr>
<td><strong>GEOG 820 – History and Philosophy of Geography.</strong> (3) I.</td>
<td><strong>GEOG 820 – Geographic Thought.</strong> (3) I.</td>
</tr>
<tr>
<td>History of geographic thought from ancient to modern times, emphasizing major themes and significant individual contributions. Required for all Master’s students in geography.</td>
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</table>

### Expedited Drop Courses:

**ART 624 – Photography Art Direction.** (3) I, II. Relationship of photography to graphic design. Art direction of photographs, photograms, and related darkroom experimentation. Note: Students must have a camera with adjustable shutter speeds and lens opening. Six hours lab. Pr.: Art 290.
Non-Expedited New Courses:

AGRON 661. Grassland Monitoring and Assessment Lab. (1) I, in even years. A field laboratory course designed as a companion to AGRON 660. Labs will consist of methods used for determination of biomass, basal cover, frequency, and density. Additional time will be spent on basic statistics, experimental design, and use of the microcomputer in analyzing data sets. Meets during the first half of the semester. One hour rec. and two hours lab a week. Pr.: AGRON 660 or concurrent enrollment.

AGRON 685. Tropical Soil Management. (3) II. Characteristics of agriculture in tropical conditions with a focus on the environment and soils. Includes discussion of soil management systems in tropical agriculture that use conventional methods as well as methods that emphasize sustainability including no-till, crop rotations, and cover crops. Three hours lec. Rec. Pr.: AGRON 375.

AGRON 706. Remote Sensing of the Environment. (3) I. Remote sensing and its application to earth study, especially environmental problems and land use. Course employs both readings and the use of imagery. Two hours lec., two hours lab. Pr.: One course in physical science and one in biological science. Cross-listed as GEOG 705.

AGRON 732. Introduction to Plant Resistance to Pests. (2) I, in even years. Introduction to Plant Resistance to Pests. Basic concepts of the biology, ecology, genetics and breeding for pest resistance in plants. Four hours lec. and discussion a week. To meet the first half of semester. Pr.: ENTOM 300 or PLPTH 500 or ENTOM 312 and ENTOM 313, and one course in plant or animal genetics. Cross-listed as PLPTH 732 and ENTOM 732.

GRSC 656. Pneumatic Conveying of Dry Solids. (2) I. Pneumatic conveying offers an ideal choice for transportation of dry, powdered and granular materials. The course is designed to introduce students to a comprehensive knowledge of the design, operation and capabilities of pneumatic conveying systems. The student will study the components of pneumatic conveying systems, the requirements for designing efficient and reliable pneumatic conveying systems, and troubleshooting existing systems. One 1-hour lecture and one 3-hour lab per week. Rec. Pr.: GRSC 210, GRSC 310, PHYS 113, PHYS 114, MATH 220.

GRSC 691. Faculty-Led Study Abroad. (1-3) I, II, S. Seminar and travel course designed to prepare students before the experience and for students to analyze, critique, and report their experiences of an international experience associated with study tours or short courses. Pr. Consent of instructor for undergraduates, consent of major professor for graduate students.

GRSC 920. Professional Development in Grain Science. (2) II, in odd numbered years. A team-instructed lecture course that provides doctoral students in the department with a suite of skills complimentary to their research experience but still necessary for professional career success. Two one-hour lectures per week. Pr.: 2nd year Ph.D. student; M.S. students with instructor consent.

HORT 691. Urban Agriculture. (3) I. Students will become familiar with and understand different types of urban agriculture projects, how they came about, management issues, and the soci-economic and policy context that allows or encourages them to exist. Pr.: Junior standing.

HORT 692. Urban Food Production Practicum. (2) I, II, S. Students will complete a 400 hour practicum in an approved urban agriculture setting to gain exposure to a broad range of tasks facing the urban farmer. This includes planning, production and marketing of crops in high tunnels and open field. Rec. Pr.: HORT 520 and HORT 560.
ART 616 – 3D Animation in Graphic Design. (3-6) I, S. Specialized training in the 3D realm, modeling, lighting, motion graphic design. Studio. Pr.: Instructor permission. Three credit hours in the relevant area. (Graphic Design, Digital Arts, Photography)

GEOG 740 – Fluvial Geomorphology. (3) I. This course is a basic introduction to the field of Fluvial Geomorphology, the study of the forms and processes found within streams and rivers. Topics will include: Review of watershed hydrology and hillslope processes, mechanics of open channel flow, sediment entrainment and transport, channel geometry, longitudinal profile and gradient, effective flows/formative events, channel patterns, pool- and river management and restoration. The course meets for three hours of lecture per week with one required weekend fieldtrip. Pr.: GEOG 221 or permission of instructor.

GEOG 837 – Political Ecology of Land Cover Change. (3) II. An introduction to political ecology, concentrating on land use and land cover change. Pr.: at least 6 hours in social science.


COT 632 RF Technology. (3) II. An introduction to the theory and design of electronic circuits for communications emphasizing the implementation and analysis of common radio-frequency (RF) building blocks. Topics include s-parameters, the Smith chart, component behavior, RF test equipment, computer simulation, filter design, impedance matching, amplifiers, oscillators, mixers, and demodulators. A report will be required of all graduate students. Pr.: ECET 320.

COT 650 Analytical and Computational Tools for Engineering Technology. (3) I. Ordinary differential equations, vector algebra, vector calculus, partial differential equations and the separation of variables technique for solving wave equations. Students also perform simulation and analysis using software tools including MATLAB and MATHCAD. Pr.: MATH 221.

COT 661. Airport Planning and Management. (3) I. An overview of the Federal Aviation Regulation Part 139 airport design standard and airport master planning process. Includes a study of the role of the airport in community development. Advanced course project required. Pr.: PPIL 111.

COT 701. Advanced Technical Communication. (3) I. Intensive writing practice, applying rhetorical principles to a number of genres common to non-academic professions and workplaces, including oral presentations. Introduction to allied topics such as document design and editing, and crafting technical presentations. Application of global information literacy and research methods will culminate in the preparation of a master’s project proposal. Pr.: ENGL 200 and ENGL 302.

COT 702 Applied Research Skills and Methods. (3) II. Survey of qualitative and quantitative research methods; use of a range of tools to develop applied research skills focusing on literature reviews. Examines applied research concepts, methods, and skills to foster enlightened decision making in professional practice. Pr.: COT 701.

COT 713 Advanced Aviation Safety Management (3) II. An examination of the development of safety and how safety management has become an important part of any company. Discusses Safety Management Systems and how this blueprint is becoming an integral part of most organizations, emphasizing specific governmental and corporate programs. Topics include management tools and techniques to aid in systematically controlling risk and developing a safety culture mind-set. Pr.: PPIL 450.

COT 720 Application of Lean Six Sigma Methods. (3) II. Six sigma and lean tools within an enterprise to improve product and process development, production operations, and service activities. Pr.: STAT 703.
COT 721 Reliability Centered Maintenance of Plant Equipment. (3) II. Reliability modeling and assessment, reliability-centered maintenance, condition monitoring technologies, and computer tools. Pr.: Graduate standing.

COT 731 Applied Electromagnetics (3) II. Fundamentals of electromagnetic wave phenomena primarily using transmission line theory to study practical applications such as antennas, cables, and waveguides. Includes a treatment EMI and related issues. Pr.: MATH 221 and ECET 320.

COT 781 Capstone Experience for Professional Master of Technology (Var.) I,II,S. Students formulate, research and execute a project for industry partners to gain hands-on experience under expert guidance while integrating knowledge to solve complex problems. Students write a convincing proposal for a capstone experience, gather and analyze data, draw conclusions and present results. Teams of first- and second-year students may form to work on real-world projects. May be repeated up to three semesters, up to a total of six credit hours. Pr.: Consent of instructor. Coreq.: COT 702.

COT 792 Problems in Professional Master of Technology (Var.) I,II,S. Opportunity for advanced independent study of a specific topic in one of the following areas: Aviation safety, engineering technology, or technology management. Topics selected jointly by student and the instructor. Pr.: Consent of instructor.

Expedited Curriculum Changes:

**Department of Apparel, Textiles and Interior Design**

MS in Apparel and Textiles with specialization in Merchandising (online)

**CHANGE FROM:**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>AT 625 Apparel and Textile Store Planning</th>
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<tr>
<td></td>
<td>AT 720 Professional Advancement in Merchandising</td>
<td>3</td>
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<td></td>
<td>AT 725 Theory and Practice of Apparel/Textile Marketing &amp; Distribution</td>
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<td>AT 735 Promotional Strategies in Merchandising</td>
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<td>AT 810 International Merchandising Management</td>
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<td>AT 815 Financial Merchandising Implications</td>
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<td></td>
<td>AT 835 Strategic Economic Analysis of Apparel and Textile Industries</td>
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<td></td>
<td>AT 840 Apparel &amp; Textile Product Development</td>
<td>3</td>
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<tr>
<td></td>
<td>AT 845 Consumers in the Apparel &amp; Textile Market</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 850 Research Methods in Apparel &amp; Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>AT 899 Master's Thesis Research in Apparel &amp; Textiles</td>
<td>3</td>
</tr>
<tr>
<td>Practica</td>
<td>AT 875 Practicum in Apparel &amp; Textiles</td>
<td>3</td>
</tr>
<tr>
<td>Total:</td>
<td>36</td>
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</tr>
</tbody>
</table>

**CHANGE TO:**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>AT 625 Apparel and Textile Store Planning</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AT 720 Professional Advancement in Merchandising</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 725 Theory and Practice of Apparel/Textile Marketing &amp; Distribution</td>
<td>3</td>
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<tr>
<td></td>
<td>AT 735 Promotional Strategies in Merchandising</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 810 International Merchandising Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 815 Financial Merchandising Implications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 835 Strategic Economic Analysis of Apparel and Textile Industries</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 840 Apparel &amp; Textile Product Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 845 Consumers in the Apparel &amp; Textile Market</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AT 850 Research Methods in Apparel &amp; Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>Two electives (6 cr.) from list as approved by ATID graduate faculty.</td>
<td>6</td>
</tr>
<tr>
<td>Total:</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

**RATIONALE:** Many students who take the online program are working in industry. An alternative practicum or “new” experience is not feasible for these students.

**EFFECTIVE DATE:** Summer 2010
Non-Expedited Curriculum Changes:

FROM:

CURRENT REQUIREMENTS FOR M.S. IN EDLEA (current Graduate Catalog description and listing)

The Master of Science degree in Educational Administration and Leadership (offered through the Educational Leadership graduate program) is a professional degree program principally for preparing skilled practitioners. Students who desire a building-level (principal) endorsement should select this degree program to meet the requirements of the state of Kansas for professional licensure. Additionally, students who intend to assume other significant leadership roles in public schools, apart from professional licensure, should consider this degree.

The student’s MS program is, in most cases, comprised of the following course sequence:

Core leadership (12 credit hours)
- EDLEA 825 Strategic Leadership in Education 3
- EDLEA 827 Political and Community Leadership in Education 3
- EDLEA 928 District, Building, and Program Leadership in Education 3

Support areas (6 credit hours)
Select one from the following list:
- EDCEP 715 Principles of Assessment 3
- EDCEP 816 Research Methods 3
- EDSP 710 Education of Exceptional Individuals 3
- EDSP 886 Seminar in Special Education 3

Building leadership (21 credit hours)
- EDLEA 819 Introduction to Education Finance 3
- EDLEA 831 Educational Law 3
- EDLEA 835 Principalship 2
- EDLEA 855 Administrative Leadership in Curriculum 3
- EDLEA 865 Administrative Leadership in Staff Development 3
- EDLEA 885 Technology Leadership for Administrators 3
- EDLEA 889 Practicum in Educational Leadership 1-3
- EDLEA 910 Educational Human Resource Administration 3

TOTAL CREDITS 36

TO:

NEW REQUIREMENTS FOR M.S. IN EDLEA

The Master of Science degree in Educational Leadership is normally a 36-credit hour professional degree program, designed primarily to satisfy P-12 school-level leadership license requirements. Students who desire a Kansas building-level (principal) license should select this degree program. Additionally, students who intend to assume other significant leadership roles in P-12 school settings, apart from professional leadership licensure, should consider this degree.

Other education professionals may also wish to obtain this degree, but with the intent to apply it in settings where professional licensure is not required. In this case, a student’s program of study may consist of a minimum 30 credit hours, with content governed entirely by the student’s supervisory committee.

For building-level Kansas leadership license aspirants, the MS program is comprised of the following course sequence:

Leadership Core (9 credits)
- EDLEA 801 Ethical Dimensions of Leadership 3
- EDLEA 810 Historical and Philosophical Analysis of Leadership in Education 3
- EDLEA 836 School-Community Relations 3

Student Learning Needs (6 credits)
- EDSP 710 Education of Exceptional Individuals or other approved course 3
- or
- EDSP 886 Seminar in Special Education or other approved course 3
- and
- EDCEP 715 Principles of Assessment or other approved course 3
- or
- EDCEP 816 Research Methods or other approved course 3

Leadership Operations (21 credits)
- EDLEA 819 Introduction to Education Finance 3
- EDLEA 831 Educational Law 3
- EDLEA 835 Principalship 2
- EDLEA 855 Administrative Leadership in Curriculum 3
- EDLEA 865 Leadership in Staff Development 3
- EDLEA 885 Technology Leadership for Administrators 3
- EDLEA 889 Practicum in Educational Leadership 1
- EDLEA 910 Human Resource Administration 3
- or

For students not seeking professional licensure, a program of study shall consist of a minimum 30 credit hours as prescribed by the supervisory committee.

TOTAL CREDITS 30-36

Rationale: Changes proposed below simultaneously streamline and improve the program’s content and also align with trends in educational leadership programming.

EFFECTIVE DATE: Fall 2010
**FROM:**

<table>
<thead>
<tr>
<th>REQUIREMENTS FOR EdD in EDLEA</th>
<th>TO:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All programs of study</strong></td>
<td><strong>General programs of study</strong></td>
</tr>
<tr>
<td>EDLEA 886 Seminar in Educational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>EDCEP 816 Research Methods (or other approved course)</td>
<td>3</td>
</tr>
<tr>
<td>EDCE 910 Multicultural Curriculum Programming (or other approved course)</td>
<td>3</td>
</tr>
<tr>
<td>EDCEP 912 Psychological Bases of Educational Thought and Practice (or other approved course)</td>
<td>3</td>
</tr>
<tr>
<td>Research courses (consistent with that required for the dissertation)</td>
<td>6</td>
</tr>
<tr>
<td>Clinical Experience</td>
<td>12</td>
</tr>
<tr>
<td>Area of Emphasis</td>
<td>48</td>
</tr>
<tr>
<td>Dissertation Research</td>
<td>16</td>
</tr>
<tr>
<td><strong>TRANSFER:</strong></td>
<td><strong>TRANSFER:</strong></td>
</tr>
<tr>
<td>Masters degree (transfer up to 30 hrs, primarily to area of emphasis)</td>
<td>30</td>
</tr>
<tr>
<td><strong>TOTAL CREDITS</strong></td>
<td><strong>TOTAL CREDITS</strong></td>
</tr>
<tr>
<td>94</td>
<td>94</td>
</tr>
</tbody>
</table>

**Rationale:** Changes proposed below simultaneously streamline and improve the program's content and also align with trends in educational leadership programming.

**EFFECTIVE DATE:** Fall 2010
### REQUIREMENTS FOR EdD in EDLEA
KSU/WU Collaborative program only

<table>
<thead>
<tr>
<th>First-level Priority Admissions—School District Leadership</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLEA 801 Ethical Dimensions of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>EDLEA 810 Hist/Philosophical Analysis of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>EDLEA 845 Leadership for Diverse Populations</td>
<td>3</td>
</tr>
<tr>
<td>EDLEA 986 Adv Sem/Research Design in Ed Leadership</td>
<td>3</td>
</tr>
<tr>
<td>(or other approved course)</td>
<td></td>
</tr>
<tr>
<td>EDCEP 816 Research Methods (or other approved course)</td>
<td>3</td>
</tr>
<tr>
<td>EDCEP 817 Statistical Methods (or other approved course)</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVES As approved by supervisory committee</td>
<td>6</td>
</tr>
<tr>
<td>EDLEA 991 Internship in Educational Leadership</td>
<td>12</td>
</tr>
<tr>
<td>EDLEA 999 Research in Educational Leadership</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WU COLLABORATIVE TRANSFER</th>
<th>12-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA 595 Practicum in Education Administration</td>
<td>3</td>
</tr>
<tr>
<td>EA 596 Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>EA 597 School Planning and Facilities</td>
<td>3</td>
</tr>
<tr>
<td>EA 598 The District Leader</td>
<td>3</td>
</tr>
</tbody>
</table>

**OR**

<table>
<thead>
<tr>
<th>Second-level Priority Admission—Other Leadership Designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA xxx Appropriate courses as committee-approved</td>
</tr>
</tbody>
</table>

**TRANSFER:**

| Masters degree (transfer up to 30 hrs, primarily to area of emphasis) | 30 |

**TOTAL CREDITS**

**94**

### IMPACT: No impact—no other units rely on these courses or degree requirements.

### RATIONALE: The respective faculties in the Department of Educational Leadership at Kansas State University (KSU) and the Department of Education at Washburn University of Topeka (WU) wish to enter into an agreement to facilitate and coordinate the entry and progress of selected qualified Master’s degree recipients toward a professional terminal (doctoral) degree. This proposal therefore seeks approval for a process by which applicants recommended by WU may be considered for admission to the Doctor of Education in Educational Leadership (Ed.D) program at KSU, and wherein the two faculties may share limited responsibility for formal instruction and supervision of admitted students. This is not a proposal for a joint degree—the degree will continue to be granted only by KSU. It is only a proposal to: (a) regularly accept up to 12 post-masters credits from WU on relevant doctoral programs of study and to allow up to 18 such transfer credits under certain specific conditions; and (b) expand the KSU supervisory committee to include a qualified WU faculty member.

The KSU/WU collaborative is intended to provide greater service to the State of Kansas by preparing additional highly qualified, terminally-degreed educational leaders for Kansas schools. Benefits specific to KSU include expanding its instructional capacity and formal scope of services into the greater Topeka area with greater visibility and impact than when simply advertising coursework on its own—i.e., KSU and WU will jointly recruit and select program applicants. Benefits specific to WU include expanding its instructional scope to include post-masters graduate credit recognition (not presently available to WU) by partnering with KSU to increase availability of doctoral training in educational leadership.

Admission to the KSU/WU collaborative is intended to be open first to those persons eligible to seek professional licensure in Kansas at the school district leadership level, and secondarily open to other persons seeking other leadership positions in P-12 education (e.g., curriculum directors, staff development directors, teacher leaders, etc). Because the district-level leadership license is a post-
masters credential and because WU presently offers the district leadership license curriculum comprised of 12 semester credits, it is proposed that first-priority persons admitted to the collaborative regularly be allowed to transfer and apply those same 12 credits toward an Ed.D program of study at KSU. It is further proposed that second-priority persons be allowed to transfer 12 selected credits as well, with such credits identified and approved by the doctoral supervisory committee. It is additionally proposed (for either first- or second-level priority admitted students) that a maximum additional 6 credits be allowed if specifically approved by the supervisory committee, with those additional 6 credits intended to enhance the student’s doctoral research skills.

While KSU will exclusively continue to control and award the Ed.D degree, the KSU/WU collaborative is intended to enhance the doctoral experience by including a qualified WU faculty member on each student’s supervisory committee. This also serves the effect of demonstrating partnership with WU. Therefore, it is proposed that, for each student admitted via the collaborative, the supervisory committee composition be increased by adding one qualified WU faculty member so that each such committee will be comprised of: (a) a major professor who shall be a doctorally certified KSU graduate faculty member; (b) two KSU graduate faculty members associated with the student’s area of emphasis; (c) a WU faculty member approved for KSU graduate faculty membership; (d) and a KSU graduate faculty member from another department. As with all other Ed.D committees, the Graduate School will continue to appoint an outside chair from within the College of Education once the student has been admitted to candidacy. The effect, then, is to increase each student’s doctoral committee membership by one WU faculty member, while leaving all remaining policy unchanged.

Program management for the KSU/WU collaborative will be the sole responsibility of KSU. The Chair of the Department of Educational Leadership at KSU will serve as Program Director. The collaborative will additionally conform to the current assessment plan. The program does not seek any other changes to current KSU policy.

The program requires no new KSU resources; rather, it should be recognized that WU’s proposed inclusion in the program’s instructional design represents a net gain (rather than new load) for KSU. Even without such net gain, the current doctoral program in Educational Leadership at KSU has capacity to accept the additional students anticipated by the collaborative. It is expected that the new collaborative will enroll approximately ten new doctoral students in the first year of operation—subsequent years will likely add approximately five new entrants annually. KSU faculty regularly serving the collaborative will be the Faculty of Educational Leadership however constituted at the time (presently Drs. G. Bailey, M. Devin, T. Miller, T. Ross, T. Salsberry, R. Shoop, D. Thompson). WU faculty initially intended to serve the collaborative are as follows: (presently Drs. G. Dye, T. Fry, M. Rettig, C. Carlson, new-hire TBD). These persons have relevant academic vitae and are in process of being submitted for KSU graduate faculty membership. Additionally, a tenure-track hire (currently advertised) at WU will be filled with a person intended for KSU graduate faculty membership. A snapshot of qualifications of WU faculty are as follows: G. Dye (Educational Leadership, Teacher Preparation, Special Education, Multicultural Education); M. Rettig (Administration and Special Education); C. Carlson (curriculum-related topics); the new tenure-track hire is earmarked for school leadership as well.

**EFFECTIVE DATE:** Spring 2011
FROM: Master of Science in Food Science (original approval April 2007)

Non-Thesis (course-work only) option: Minimum of 30 credit hours with 19 core credits and at least 18 hours at 700 level. The core courses as outlined below are to ensure that the student possesses the critical graduate level food science knowledge and communication skills required.

**Core Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 604</td>
<td>Prb/Expos Writing Workshop</td>
<td>2 credits</td>
</tr>
<tr>
<td>FDSCI 600</td>
<td>Food Microbiology</td>
<td>2 credits</td>
</tr>
<tr>
<td>FDSCI 690</td>
<td>HACCP</td>
<td>2 credits</td>
</tr>
<tr>
<td>FDSCI 695</td>
<td>Quality Assurance</td>
<td>3 credits</td>
</tr>
<tr>
<td>FDSCI 725</td>
<td>Food Analysis</td>
<td>3 credits</td>
</tr>
<tr>
<td>FDSCI 961</td>
<td>Problems/Food Chemistry</td>
<td>3 credits</td>
</tr>
<tr>
<td>FDSCI 850</td>
<td>Food Science Graduate Seminar</td>
<td>1 credits</td>
</tr>
<tr>
<td>STATS 703</td>
<td>Statistics for Natural Scientists</td>
<td>3 credits</td>
</tr>
<tr>
<td><strong>Total core</strong></td>
<td></td>
<td><strong>19 credits</strong></td>
</tr>
</tbody>
</table>

*Elective Courses* 11 credits

**Total credit hours for the Master of Science in Food Science** 30 credits

*Note: It is possible that a student may already have taken one or more of these courses or their equivalent on another degree. Therefore, the graduate advisory committee will determine course substitution as needed*
To: Master of Science in Food Science

Non-Thesis (course-work only) option: Minimum of 34 credit hours with 20 core credits and at least 18 hours at 700 level. The core courses as outlined below are to ensure that the student possesses the critical graduate level food science knowledge and communication skills required.

Core Courses:

ENGL 604  Expository Writ Wksp - Top/Writing Food Science 3 credits
FDSCI 600  Microbiology of Food 2 credits
FDSCI 690  Principles of HACCP 2 credits
FDSCI 695  Quality Assurance of Food Products 3 credits
FDSCI 725  Food Analysis 3 credits
FDSCI 815  Food Chemistry 3 credits
FDSCI 850  Graduate Seminar/Food Science 1 credits
STATS 703  Statistical Methods for Natural Scientists 3 credits

Total core 20 credits

*Elective Courses 14 credits

Total credit hours for the Master of Science in Food Science 34 credits

Rationale: Several changes are basic bookkeeping revisions. ENGL 604 was anticipated to be a 2 credit course when the Non-Thesis option was initially approved in 2007, but it has actually been a 3 credit course since it was first taught in summer 2008. Thus the changes in the credits for ENGL 604 increase to 3 and the core credits increases by 1 credit to 20. FDSCI 815 is a replacement for the problems number course, FDSCI 961. The intent and course material (FDSCI 815 Food Chemistry) are essentially the same.

Total credits Non-Thesis option increase from 30 to 34 – The food science graduate faculty believes the non-thesis option is considerably less rigorous than the thesis/report MS degree option and requiring 4 additional credits will enhance the program. Most recent students have taken more than the required 30 credits so we do not anticipate a substantial burden for them. The core courses will remain the same. The increase in credits was approved unanimously by the Food Science Graduate Coordinating Committee and the entire graduate faculty via electronic voting on 6-26-09 (16 yes and 2 no to increase credits to 34, total eligible to vote 27).

EFFECTIVE DATE: Fall 2010
Graduate Curriculum Changes

Horticulture, Forestry Recreation and Resources

Graduate Certificate in Horticultural Therapy

FROM:          TO:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 750 Orientation to Hort Therapy</td>
<td>1</td>
</tr>
<tr>
<td>HORT 751 Human Issues in HT</td>
<td>3</td>
</tr>
<tr>
<td>HORT 752 Horticulture in HT</td>
<td>3</td>
</tr>
<tr>
<td>HORT 753 Clinical Skills in HT</td>
<td>6</td>
</tr>
<tr>
<td>HORT 755 Practicum in HT</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits:</strong></td>
<td><strong>46</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 751 Human Issues in HT</td>
<td>3</td>
</tr>
<tr>
<td>HORT 752 Horticulture in HT</td>
<td>3</td>
</tr>
<tr>
<td>HORT 753 Clinical Skills in HT</td>
<td>6</td>
</tr>
<tr>
<td>HORT 755 Practicum in HT</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits:</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

RATIONALE: The intent was that students in the Graduate Certificate in Horticultural Therapy program would take HORT 750 first, but in practice students are taking this class concurrently with other certificate program classes offered in the same semester. Given that this program is delivered online, the materials from HORT 750 can be organized into a module provided with each certificate course that first time students in any of the courses must complete at the start of the course. This will insure that the students have the baseline information and knowledge necessary to be successful in this online teaching format regardless of what semester and with what course they join the program.

IMPACT: No impact on other departments. However, total credits for the certificate are changing from 16 to 15.

EFFECTIVE DATE: Fall 2010
Concurrent B.S. & M.S. Horticulture Degree Program in the Department of Horticulture, Forestry and Recreation Resources

The combined B.S./M.S. Horticulture program in the Department of Horticulture, Forestry and Recreation Resources (HFRR) provides exceptional undergraduates with the opportunity to obtain both a Bachelor of Science and a Master of Science in 5 years, a shorter time than typically required to earn a B.S. plus M.S. if both degrees are pursued separately. Students can obtain M.S. with thesis or non-thesis option.

The curriculum will include both course work and research experience. Graduates will be well-equipped either to seek careers in the private sector or pursue advanced degrees. The advantages of the combined degree to students seeking private sector employment may be entry level positions with higher-level responsibilities, higher pay, and opportunities for more rapid advancement. The rigorous training and combined B.S./M.S. (thesis option) will offer a competitive advantage in the admissions process to students interested in pursuing doctoral (PhD) degrees.

ADMISSION REQUIREMENTS: The following requirements must be met before an individual can be admitted into this program.

- The student must be seeking a B.S. degree from the Department of Horticulture, Forestry and Recreation Resources.
- The student must have completed 45 to 90 hours toward the B.S. degree.
- The student’s cumulative undergraduate GPA must be at least 3.0.
- The student must be nominated by a Graduate Faculty member of HFRR at any time from the second semester of the sophomore year through the second semester of the junior year. A student may be nominated during the senior year with special permission from the HFRR Director of Graduate Programs.

APPLICATION PROCESS: The application process is the same as for the traditional M.S. degree except that completion of the B.S. degree is not required and the GRE score requirement will be waived.

- KSU graduate application form completed on-line and submitted before semester of enrollment. Application fee submitted with application.
- Applicant’s statement of academic objective(s) and preferred primary advisor(s) must be submitted with application.
- Three letters of reference are required.
- Transcript(s) of all undergraduate work must be sent to the Director of Graduate Programs in HFRR.

Once a student is admitted to the concurrent B.S./M.S degree program, the student should consult the graduate handbook for policies and procedures for M.S. degrees which include: supervisory committee, final examination, etc. The student will work closely with her/his major professor to form a supervisory committee and file a program of study by the end of the first semester of the senior year. The student’s supervisory committee must approve the program of
study, which is a statement of the student’s graduation requirements. The undergraduate advisor will continue to advise the student in academic progress toward the B.S. degree, and the major professor will supervise the student’s academic progress and research project for the M.S. degree. Research toward the M.S. thesis will begin as soon as possible, but will not begin later than the first semester of the senior year.

Should the student meet these requirements and be approved for admission by the HFRR Graduate Admission Committee, admission will be provisional, pending the award of the B.S. degree. The student must complete all of the undergraduate requirements with the exception that up to nine (9) credit hours of graduate level classes taken for graduate credit may be applied toward the 130 credit hour requirement for the undergraduate degree and can also count toward the 30 credit hours required for the M.S. degree. The B.S. degree may be awarded at any time following the completion of the undergraduate degree requirements. Alternatively, the B.S. and M.S. degrees may be awarded concurrently.

EFFECTIVE DATE: Fall 2010
**New Graduate Curriculum(s)**

Horticulture, Forestry Recreation and Resources

M.S. in Horticulture – Urban Food Systems Specialization – A New Specialization in the Existing M.S. Program

FROM: M.S. Horticulture – Current

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>14-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 951 Horticulture Graduate Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Research Methods (HORT 846 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>700 level or above Statistics</td>
<td>3-6</td>
</tr>
<tr>
<td>800 level or above Plant Physiology</td>
<td>3-6</td>
</tr>
<tr>
<td>Or 500 level or above Biochemistry</td>
<td></td>
</tr>
<tr>
<td>Or HORT 751 Human Issues in Horticulture</td>
<td></td>
</tr>
<tr>
<td>One Horticulture Graduate Course</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thesis Research or Report</th>
<th>2-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 898 Master’s Report</td>
<td>2</td>
</tr>
<tr>
<td>Or HORT 899 Research – M.S.</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Courses</th>
<th>4-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be determined by Supervisory Committee</td>
<td></td>
</tr>
</tbody>
</table>

| Total Credit Hours Required | 30 |

TO: M.S. Horticulture, Specialization in Urban Food Systems - Proposed

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>11-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 951 Horticulture Graduate Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>700 level or above Statistics</td>
<td>3</td>
</tr>
<tr>
<td>800 level or above Plant Physiology</td>
<td>3-6</td>
</tr>
<tr>
<td>Or 500 level or above Biochemistry</td>
<td></td>
</tr>
<tr>
<td>Or HORT 751 Human Issues in Horticulture</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thesis Research or Report</th>
<th>2-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 898 Master’s Report</td>
<td>2</td>
</tr>
<tr>
<td>Or HORT 899 Research – M.S.</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Courses</th>
<th>3-10</th>
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<tbody>
<tr>
<td>To be determined by Supervisory Committee</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Specialization</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 690 Sustainable Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>HORT 691 Urban Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>HORT 692 Urban Food Production Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

| Total Credit Hours Required | 30 |

**RATIONALE:** Urban Food Systems is proposed as a new specialization under the Master of Science in Horticulture program in the Department of Horticulture, Forestry, and Recreation Resources. This specialization will prepare professionals for positions such as director/program managers in not-for-profit organizations, city governments or extension programs in urban districts facilitating community gardens, urban farming, farmers markets, or farm-to-school programs. There is a growing demand for professionals in this area and we believe the proposed specialization is unique and will prepare graduates well for careers in this area. This specialization was prepared with input from current undergraduate students interested in entering a graduate program in this area and representatives from several urban agriculture organizations such as Kansas City Center for Urban Agriculture, Kansas City Healthy Kids, Kansas City Food Policy Initiative, Kansas Rural Center, and the Good Nature Family Farms.
The specialization places an emphasis on sustainable agriculture, project management, and grant writing, in addition to having a solid foundation in horticultural science and food crop production.

Admission and administration policies are those of the existing M.S. in Horticulture program.

Students choosing this specialization will move through the program as a cohort, with a new group starting each fall semester. Students will enroll in 1 credit of HORT 898 Master’s Report or HORT 899 Research - MS in their first fall semester where they will meet representatives from one or more organizations involved in urban horticulture in the Kansas City Metro (or other cities), in addition to their on-campus faculty committee. Each student will have a major professor and two additional committee members; one from the department of Horticulture and the other may be from an outside department. The student will develop a project in collaboration with one of the urban horticulture organizations.

IMPACT: No impact on other departments.

EFFECTIVE DATE: Fall 2010
BASIC PROGRAM INFORMATION:

Proposing Institution: Kansas State University

Title of Proposed Program: Professional Master of Technology

Anticipated Date of Implementation: Fall 2011

Responsible Departments: Department of Aviation, Department of Engineering Technology, and the Department of Arts, Sciences and Business

Center for Education Statistics (CIP) code associated with the program: 15.9999

PROGRAM PROPOSAL NARRATIVE

1. PROGRAM NEED AND STUDENT CHARACTERISTICS

1.1. Is the program central to the mission of the institution?

Kansas State University’s Professional Master of Technology Degree is designed to allow professionals in technology to thrive in today’s rapidly changing work environment. The program will offer a professional degree that emphasizes the teaching of soft skills, alongside the hard skills appropriate to the technical requirements of the workplace. K-State’s institutional mission reflects the University’s commitment to developing “human potential, expanding knowledge, enriching cultural expression, and extending its expertise to individuals, business, education, and government. These responsibilities are addressed through an array of undergraduate and graduate degree programs… to prepare students for successful employment or advanced studies through a variety of disciplinary and professional degree programs… Kansas State University prepares its students to be informed, productive, and responsible citizens who participate actively in advancing cultural, educational, economic, scientific, and socio-political undertakings.” We believe that the proposed Professional Master of Technology (PMT) degree is completely compatible with the mission of the University.

As a professional program, the Professional Master of Technology Degree will by definition provide advanced skills and knowledge in the areas of communication, leadership, project management, and teamwork. It will also provide unique opportunities for students to arrange programs with emphasis in the broad areas of aviation, engineering technology, and technology management. Qualified faculty representing all three departments (Art, Science, and Business; Aviation; and Engineering Technology) within the College of Technology and Aviation (COTA) will cooperate to create highly individualized plans of study for each graduate student.

Filling a niche as the only professional master’s degree for technology professionals in the State of Kansas, the program has the potential to attract qualified college graduates and industry personnel from a variety of backgrounds, both regionally and nationally. In addition to creating advancement opportunities for all bachelor’s degree holders from the K-State College of Technology and Aviation (COTA), this program will also enhance the College’s applied research capabilities and lead to an intensified collaboration with regional industry.
1.2. What is the student demand for the program?

Prospective student demand for the program was assessed through two instruments, a current student survey and an alumni survey (Both surveys were offered in Oct-Nov 2009). The current student survey was responded to by 118 students from a total of 632 (Note the survey was sent to all current students, but 11 Freshmen students were not allowed to respond beyond three questions designed to identify class status and major; 12 students did not finish the survey). Among Seniors and Juniors who responded after reading a brief description of the proposed program, reactions were as follows:

- 77 out of 95 respondents agreed or strongly agreed that the PMT degree was of interest to them.
- 82 out of 95 respondents would be interested in pursuing the PMT degree at K-State Salina.
- 60 out of 95 respondents expressed an interest in obtaining a PMT degree within the next 1-3 year timeframe. Additionally, 17 others expressed an interest in obtaining the PMT degree sometime in the future after 3 years.

The alumni survey (76 out of 337 started the survey 2 opted out and 2 quit before finishing), summarized below, indicate that our program meets with the approval of a substantial portion of the alumni respondents (the survey was conducted via email and a significant percentage of the addresses were out-of-date).

- 54 out of 69 respondents agreed or strongly agreed that the PMT degree was of interest to them.
- 53 out of 69 respondents would be interested in pursuing the PMT degree at K-State Salina.
- 40 out of 69 respondents expressed an interest in obtaining a PMT degree within the next 1-3 year timeframe. Additionally, 6 others expressed an interest in obtaining the PMT degree sometime in the future, after 3 years.

Estimated enrollment, sustainability of enrollment, and impact of current economic solution:

The results obtained from both surveys seem to indicate that a majority of the respondents in each case would be interested in pursuing our Professional Master of Technology degree. That 100 respondents have indicated an interest to pursue the PMT degree within a 1-3 year timeframe is very encouraging, in fact our program becomes viable assuming only 22 of the respondents finish their PMT degree within the first four years (see section on cost analysis).

We believe the following is a conservative estimate of the numbers we are likely to see in the first five years:

<table>
<thead>
<tr>
<th></th>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
<th>Fifth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Students</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Part-time Students</td>
<td>5</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Assumed Number of Graduates</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>12</td>
</tr>
</tbody>
</table>

The current economic conditions will also help enrollment as increased competition in job markets make advanced degrees more attractive. Concerning the sustainability of enrollment, we will have five more years of graduates adding to the pool of possible PMT degree seekers in the next five years and this factor alone would make the program sustainable (2009 survey also shows 63% (60 out of
95) students expressed an interest in pursuing the PMT degree in a 1-3 year timeframe. Also as the program matures, we expect to see international students adding to our numbers.

1.3. What is the demand for the graduates?

The PMT degree is somewhat similar to the Professional Science Master’s (PSM) programs from a curricular standpoint; PSM requires coursework that teaches students disciplinary and extra-disciplinary material and skills that they need for successful careers (Professional Master’s Education, Council of Graduate Schools, page-14). Moreover, the extra-disciplinary material, which includes components (such as: business, ethics, teamwork, communication etc.) is almost identical. The difference between the two degrees lies mainly in the disciplinary focus, PMT programs are designed for Bachelor of Technology graduates while PSM’s are mostly for Bachelor of Science graduates.

Based on the similarities in the curricular design, there should be comparable demand for PMT graduates as there is for PSM programs; as an indication of its success, PSM degrees have grown in the number of programs from 73 in 2004 -Professional Master’s Education, Council of Graduate Schools, pg-23) to approximately 150 in 2009 (http://www.sciencemasters.com/PSMOverview/tabid/57/Default.aspx).

While the success of PSM programs is encouraging, we believe that the demand for PMT graduates stands on its own based on the documentation to follow. Our documentation for establishing the demand consists of two components,

– Survey results from industrial advisory members (nearly all of whom employ our graduates);
– Letters of support from industry;

We will complete our discussion over demand by providing the quoting some industry supporters and providing a list of potential employers who regularly recruit from our programs; both groups are well placed to hire our PMT graduates.

Survey Results:

Our industrial advisory committee (IAC) members represent many global, national, and local companies that are very representative of employers throughout Kansas and the nation. A total of 25 out of 74 IAC members started this survey and 23 individuals completed it. The following results seem to indicate that the PMT graduates could find favor with employers who regularly hire our graduates. COTA IAC survey results show that 60% (15 out of 25 responding) agree or strongly agree that employees holding a graduate degree are valuable assets for their short-term growth; 76% (19 out of 25) agree or strongly agree that industrial advisors believe that Grad degrees are important for long-term growth. Most importantly, 65% (15 out of 23 responding) agree or strongly agree that their companies would be interested in hiring graduates of our PMT program. 91% (21 out of 23 responding) felt that their companies would be supportive of individuals pursuing an online PMT program; 55% (12 out of 22 responding) agree or strongly agree that their companies would financially support individuals who pursue an online PMT program.

The IAC input is significant, because the members represent Kansas companies that employ our graduates, and among them, possess a great deal of industrial experience (more than 80% average 20+ years). Advisory members tend to be cognizant of the current and future directions of many Kansas companies in an increasingly global economy.
Letters of Support:

We have also obtained several letters of support from employers of our graduates who support the PMT degree initiative. Here are some excerpts (copies of these letters can be found in appendix C),

“I think you have a very forward-looking program which allows students to focus on the leadership/management aspects of their career in addition to the technical aspects. Quality companies should definitely appreciate and understand the need for the well-round aspects of your program.”

Darian L. Bebout,
B-52 EHF Program Manager,
Boeing - Integrated Defense Systems – Wichita

“As an employer of a large number of technically trained people, I see graduates of this program as being in high demand in the job market. I also believe many companies, like Cessna, will encourage existing employees to enhance their skill level by earning this degree....”

Michael J. Pierce,
Manager,
Product Marketing,
Cessna Aircraft Company

“As a representative of a company that can see the benefit of this type of program from both a business and a community point of view, I would like to express my excitement and support for this endeavor.”

Doug Oliphant,
Vice President,
KSolutions

“As our company promotes from within, this may also present opportunities for leadership training for our existing employees looking for advancement. K-State Salina already has a reputation for turning out graduates with excellent technical expertise. The addition of a Master’s degree that teaches “soft” as well as hard skills will make K-State Salina Program much more competitive.”

Kevin Miesbach,
Avionics/Instrument Shop Manager,
Duncan Aviation

“The PMT program would provide a means for students and professionals to build these skills in a focused and respected environment. For those companies that value these skills, but do not have the resources to provide in-house education, the PMT program would allow a means for them to further develop their professionals.”

Lisa L. Atcheson
Learning Solutions & Services Sr. Manager
Spirit AeroSystems, Inc.
List of Potential Employers:

The following companies have hired COTA graduates and are potential employers of PMT graduates.

<table>
<thead>
<tr>
<th>Potential Employer</th>
<th>Local (SALINA, KS)</th>
<th>In-state</th>
<th>Out of State</th>
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<tr>
<td>ABB Automation Inc</td>
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<tr>
<td>America West</td>
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<td>X</td>
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<tr>
<td>American</td>
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<tr>
<td>American Eagle</td>
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<tr>
<td>APAC-Kansas, Inc.</td>
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<td>X</td>
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<tr>
<td>Automation Engineering</td>
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<td>X</td>
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<td>Ballou Construction Co., Inc.</td>
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<td>X</td>
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<td>Bergkamp, Inc.</td>
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<td>X</td>
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<tr>
<td>Black &amp; Veatch Corporation</td>
<td>X</td>
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<td>Blue Beacon International</td>
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<td>X</td>
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<tr>
<td>Boeing, Integrated Defense Systems</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Boeing, Commercial Airplane Group</td>
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<td>X</td>
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<td>Busboom &amp; Rauh</td>
<td>X</td>
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<td>Cessna</td>
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<td>Continental Express</td>
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<tr>
<td>DST Systems, Inc.</td>
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<tr>
<td>Duncan aviation</td>
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<tr>
<td>EDS</td>
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<td>Federal Home Loan Bank</td>
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<tr>
<td>Fidelity National Information Services</td>
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<tr>
<td>Garmin</td>
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<td>X</td>
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<tr>
<td>Hall Brothers, INC</td>
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<td>Harbin Construction, LLC</td>
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<td>Hawker Beech</td>
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<td>Kansas Department of Transportation</td>
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<td>Kansas State University</td>
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<tr>
<td>KASA Industrial Controls</td>
<td>X</td>
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<tr>
<td>Midland Radio Corporation</td>
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<tr>
<td>Nation Pizza Products</td>
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<td>X</td>
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<tr>
<td>Natural Resources Conservation Service</td>
<td>X</td>
<td>X</td>
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<td>Premier Pneumatics, Inc.</td>
<td>X</td>
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<tr>
<td>Smoky Hill Construction</td>
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<td>X</td>
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<tr>
<td>Southwest</td>
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<tr>
<td>Spirit AeroSystems Inc.</td>
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<td>The Bradbury Co Inc</td>
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<tr>
<td>United</td>
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<tr>
<td>Vanguard</td>
<td>X</td>
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<tr>
<td>Via-Christi Health System</td>
<td>X</td>
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<tr>
<td>Web Creations &amp; Consulting LLC</td>
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<td>X</td>
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<td>Western Resources</td>
<td>X</td>
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<td>Westar Energy</td>
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<td>X</td>
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<tr>
<td>Wolfcreek Nuclear Operations</td>
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<td>X</td>
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<tr>
<td>Yingling Aviation</td>
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</table>
1.4. What are the locational and comparative advantages of this program?

Similar programs in other institutions in the Regents system:

The Professional Master of Technology (PMT) degree seems to have uniqueness in its name and its design; the PMT degree has a common core with a minimum requirement of 19 credits. Students will develop advanced technical writing skills, project management skills, leadership skills, global skills, and other personal and interpersonal skills through an assigned set of courses and a mandatory capstone experience. Students in our PMT program will expand technical knowledge and applied research skills through a combination of the required capstone experience and advanced elective coursework. Among the Regents schools, the program that comes closest to our curriculum is Pittsburgh State University’s (PSU) Master of Science with a Major in Technology degree’s non-thesis option (Option II). PSU’s MS in Technology option does not require a capstone experience which is a cornerstone for a professional master’s program like the PMT. Another Regent’s program that is in some ways similar to the PMT is the Professional Science Master’s (PSM) program at Fort Hays State University (FHSU). FHSU’s PSM degree admits students who hold an applied science Bachelor’s degree in one of their concentration areas (or a related area). The PMT degree does not have concentrations but is able to provide 9-11 credits of elective emphasis. PMT will admit students who hold Bachelor’s degrees in engineering technology, aviation, technology management (or a related area).

Program Location:

The Professional Master of Technology program will have the advantage of being located in a growing industrial town only 90 miles from the large industrial base of Wichita, Kansas. Our two main target populations consist of COTA graduates and other technology professionals in the area who seek a professional degrees. This degree emphasizes the teaching of soft skills, along with the hard skills that focus on the technical requirements of the workplace and is therefore more student-centered from the perspective of aforementioned target groups. The idea of the professional degree, while relatively new, has emerged as a popular post-graduate alternative to a standard Master of Science (MS) Degree. K-State at Salina educators, industry representatives and alumni have a long term vested interest in the actualization of this program. The program aligns COTA resources to support the educational aspirations and career pathways of many Kansas citizens.

Our degree will also benefit in multiple ways from the strong ties that bind the College of Technology and Aviation with its industrial partners. Industry relationships will help us with ideas for real-world capstone projects and provide a source of guest lecturers among other things. Our current list of industrial advisory council includes 100+ members of the largest Kansas companies and would form an excellent pool from which to draw PMT advisory board members. The survey results and letters of support presented in sections 1.1-1.3 are a strong indication of support from alumni and industry representatives.

1.5. What are the characteristics of the students who will participate in this proposed program?

Principal characteristics of our students are that their career goals are industry focused and they are attempting to develop skills that will give them an edge in their occupation of choice. We expect that many of the students will be part time due to job responsibilities. We expect that the full time part time split will be almost even. It is anticipated that many of our recruits will come from COTA
graduates, from one of its three departments provided they meet minimum admission criteria and recommendations of the admissions committee. As a minimum criteria we will require 3.0 or higher in the last 60 credits of formal coursework and three months of industry experience. Industry experience may be waived for students who plan to complete an internship while in the program. Graduates from other Colleges will also be able to apply to the program provided they satisfy the following criteria,

a. Have a B.S. degree in the area of Engineering Technology; Professional Pilot; Aviation Maintenance; Technology Management; or a closely related field.

b. 3.0 or higher in the last 60 credits of formal coursework.

c. Have a minimum of three months of industry experience at the time of admission (this criterion can be waived for students who plan to complete an internship requirement).

d. International students will need to meet English requirements set by the Graduate School. The following statement regarding English requirements have been taken from the Graduate Handbook.

“All international students admitted to the Graduate School must demonstrate the same level of achievement as U.S. students. That is, they must hold a degree from an established institution comparable to a college or university in the United States, have an outstanding undergraduate record, have the demonstrated ability to do graduate work, and provide evidence of language proficiency sufficient for the pursuit of a graduate degree. Admission may be denied to students from technical schools, which may provide excellent training in special areas, but do not offer degrees equivalent to those of colleges and universities. As a rule, students from abroad are not admitted to nondegree status (that is, as special students). Questions about the qualifications of international students should be directed to the Graduate School.

The Graduate School requires each international applicant whose native language is not English to demonstrate competence in the English language by achieving a satisfactory score (defined below) on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The TOEFL or IELTS is required to ensure that the student’s progress toward a degree is not jeopardized by language barriers. The TOEFL (K-State TOEFL school code 6334) is offered several times a year throughout the world by the Educational Testing Service, Princeton, New Jersey. International applicants are advised to take the TOEFL as early as possible to avoid delays in the processing of their applications for admission. An applicant who has received a degree in the last two years from a United States college or university is exempt from this requirement. However, individual programs may require demonstration of English language proficiency.

Applicants who are submitting a TOEFL iBT (internet based) score must have a minimum of 79 to be considered for admission to a graduate program. Applicants with part scores of less than 20 on any one of the reading, writing, or listening sections may be considered for provisional admission and required to take the English Proficiency Test (EPT) prior to enrolling in their first semester. Applicants will be required to enroll in the designated course(s) based on EPT scores and the recommendation of the K-State English Language Program.

Applicants who are submitting a TOEFL paper-based test score must have a minimum of 550 to be considered for admission to a graduate program. Applicants with scores...
550 through 599 may be admitted provisionally and must take the EPT prior to enrolling in their first semester. Applicants will be required to enroll in designated course(s) based on EPT scores and the recommendation of the K-State English Language Program. TOEFL scores are valid for two years from the test date.

Some programs require a TOEFL score higher than the Graduate School minimum. Those who do not meet the program's minimum proficiency standard may be recommended for enrollment in University English courses or for part-time English courses offered by the K-State English Language Program.

Applicants who are submitting an IELTS score must have a minimum of 6.1 to be considered for admission to a graduate program. Applicants with a score 6.1 through 6.9 may be admitted provisionally and must take the EPT prior to enrolling in their first semester. Applicants will be required to enroll in designated course(s) based on EPT scores and the recommendation of the K-State English Language Program. Those who do not meet the minimum proficiency standard may be recommended for enrollment in University English courses or for part-time English courses offered by the K-State English Language Program. IELTS scores are valid for two years from the test date.”
2. CURRICULUM

The “common core” curriculum is designed to help students develop advanced skills in the areas of communication, leadership, project management, and teamwork. Students in the Professional Master of Technology program will expand technical knowledge and applied research skills through a required capstone experience and advanced elective coursework. The program is also expected to be delivered in a hybrid format with a significant number of its courses presented in an online or distance format.

The Graduate Task Force from the College of Technology and Aviation (COTA) has continued to seek input from its Industrial Advisory Committee (IAC) members (a superset of the graduate advisory board) throughout the development phases of the Professional Master of Technology (PMT) degree. In April of 2008 IAC members received PMT curriculum related material for the first time. During this visit IAC members had the opportunity to provide valuable input. The general consensus formed through various formal and informal discussions indicates that this design has been well received by IAC members. Since then, members have been kept apprised of program developments at key junctures, allowing sufficient opportunity for them to provide input through face to face conversations, emails, and surveys.

The appropriateness of the curriculum for the program also has been evaluated by studying the results of two surveys, one that targets all COTA Industrial Advisory Committee (IAC) Members, and another that targets COTA Alumni. Table 1 has been constructed from industrial advisory member responses to our main program themes and shows the level of importance associated with each. The table seems to indicate good thematic convergence between our program design and IAC input.

<table>
<thead>
<tr>
<th>Major themes associated with the PMT Degree</th>
<th>Percentage of those responding who agreed or strongly agreed that these skills are beneficial to their company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Skills</td>
<td>96%(22 out of 23 responding)</td>
</tr>
<tr>
<td>Applied Research Skills</td>
<td>74%(17 out of 23 responding)</td>
</tr>
<tr>
<td>Diversity in the Workplace</td>
<td>61%(14 out of 23 responding)</td>
</tr>
<tr>
<td>Quality Assurance Skills</td>
<td>74%(17 out of 23 responding)</td>
</tr>
<tr>
<td>Leadership Skills</td>
<td>96%(22 out of 23 responding)</td>
</tr>
<tr>
<td>Engineering/Technical Skills</td>
<td>70%(16 out of 23 responding)</td>
</tr>
</tbody>
</table>
Previously we made use of alumni survey data for the purpose of demonstrating student demand. We think some of this data can be used to establish demand for graduates as well, for the following reasons,

1. 82% of those responding are currently employed in the engineering, technology, or aviation field;
2. More than 46% of those completing the survey had more than five years of experience;
3. About 88.2% of those completing the survey had more than 2 years of experience and would be in the workforce for many more years.

Alumni responses to our major themes can be seen in Table 2. Fig. 1 shows how Alumni responses closely follow IAC responses. Table 3 lists the core courses and electives of the program. It should be noted that a 15% difference exists in the responses for “Leadership Skills”. While both groups value this highly (> 80%), the more experienced Industrial Advisory Council members seem to value this more. The other themes match up fairly well.

<table>
<thead>
<tr>
<th>Major themes associated with the PMT Degree</th>
<th>Percentage of those responding who thought that this had some importance or was very important to the workplace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Skills</td>
<td>85.2% (52 out of 61 responding)</td>
</tr>
<tr>
<td>Applied Research Skills</td>
<td>70.5% (43 out of 61 responding)</td>
</tr>
<tr>
<td>Diversity in the Workplace</td>
<td>54% (33 out of 61 responding)</td>
</tr>
<tr>
<td>Quality Assurance Skills</td>
<td>82% (50 out of 61 responding)</td>
</tr>
<tr>
<td>Leadership Skills</td>
<td>80.4% (49 out of 61)</td>
</tr>
<tr>
<td>Engineering/Technical Skills</td>
<td>78.7% (48 out of 61)</td>
</tr>
</tbody>
</table>
Fig. 1. Graphical view of alumni (maroon) and IAC (blue) responses to program themes
Kansas State University at Salina  
Professional Master of Technology Program  
(30 credit hours required)

<table>
<thead>
<tr>
<th>Required “Common Core” Courses (minimum 19 credit hours):</th>
</tr>
</thead>
<tbody>
<tr>
<td>COT 701 Advanced Technical Communication (3)</td>
</tr>
<tr>
<td>COT 702 Applied Research Skills and Methods (3)</td>
</tr>
<tr>
<td>STAT 703 Statistical Methods for Natural Sciences (3)</td>
</tr>
<tr>
<td>MANGT 810 Operations Management and Analysis (3)</td>
</tr>
<tr>
<td>MANGT 820 Behavioral Management Theory (3)</td>
</tr>
<tr>
<td>COT 781 Capstone Experience for Professional Master of Technology (4-6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>COT 632 RF Technology (3)</td>
</tr>
<tr>
<td>COT 650 Analytical and Computational Tools for Engineering Technology (3)</td>
</tr>
<tr>
<td>COT 661 Airport Planning and Management (3)</td>
</tr>
<tr>
<td>COT 713 Advanced Aviation Safety Management (3)</td>
</tr>
<tr>
<td>COT 720 Application of Lean Six Sigma Methods (3)</td>
</tr>
<tr>
<td>COT 721 Reliability Centered Maintenance of Plant Equipment (3)</td>
</tr>
<tr>
<td>COT 731 Applied Electromagnetics (3)</td>
</tr>
<tr>
<td>COT 792 Problems in Master of Technology (var. 1-3)</td>
</tr>
<tr>
<td>COT 799 Special Topics in Professional Master of Technology (var. 1-3)</td>
</tr>
<tr>
<td>ECON 640 Industrial Organization and Public Policy (3)</td>
</tr>
<tr>
<td>IMSE 680 Quantitative Problem Solving Techniques (3)</td>
</tr>
</tbody>
</table>
Student Learning Outcomes:

The program student learning outcomes (SLOs) are provided below (Table 4). These outcomes will be rigorously assessed (as discussed later in the assessment section) to ensure the quality of the program (discussed later in the assessment section). A mapping of our SLOs to Kansas State University’s Graduate SLO can be seen

<table>
<thead>
<tr>
<th>Table 4. Student Learning Outcomes for Professional Master of Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SLO 1</strong></td>
</tr>
<tr>
<td>Demonstrate ability to apply project management techniques to the workplace.</td>
</tr>
<tr>
<td><strong>SLO 2</strong></td>
</tr>
<tr>
<td>Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.</td>
</tr>
<tr>
<td><strong>SLO 3</strong></td>
</tr>
<tr>
<td>Demonstrate ability to apply skills and knowledge in one’s emphasis area.</td>
</tr>
<tr>
<td><strong>SLO 4</strong></td>
</tr>
<tr>
<td>Demonstrate ability to write clear and effective technical reports, proposals, presentations, and business correspondence.</td>
</tr>
<tr>
<td><strong>SLO 5</strong></td>
</tr>
<tr>
<td>Demonstrate ability to orally communicate technical information to a variety of audiences.</td>
</tr>
<tr>
<td><strong>SLO 6</strong></td>
</tr>
<tr>
<td>Demonstrate understanding of relevant professional ethics and social responsibility.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5. Mapping of K-State SLO with Professional Master of Technology SLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-State Graduate SLOs</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Knowledge:</strong></td>
</tr>
<tr>
<td>Demonstrate thorough understanding and/or competency in a specific area of emphasis, study, or profession.</td>
</tr>
<tr>
<td><strong>Skills:</strong></td>
</tr>
<tr>
<td>Demonstrate the ability to apply knowledge through critical thinking, inquiry, analysis, and communication to solve problems and to produce scholarly and creative works including but not limited to design, art, performance, original research in the form of thesis or dissertation.</td>
</tr>
<tr>
<td><strong>Attitudes and Professional Conduct:</strong></td>
</tr>
<tr>
<td>Exhibit an awareness of their responsibilities (professional integrity, ethical behavior, ability to work with diverse groups of peoples, etc.) and engage in professional conduct towards all constituent groups, including students, faculty, public, etc.</td>
</tr>
</tbody>
</table>
Core Courses in the Curriculum:

The core course descriptions are provided below, the entire list of new course descriptions available in appendix A.

**COT 701 - Advanced Technical Communication**

Intensive writing practice, applying rhetorical principles to a number of genres common to non-academic professions and workplaces, including oral presentations. Introduction to allied topics such as document design and editing, and crafting technical presentations. Application of global information literacy and research methods will culminate in the preparation of a master’s project proposal.

**COT 702 - Applied Research Skills and Methods**

Survey of qualitative and quantitative research methods; use of a range of tools to develop applied research skills focusing on literature reviews. Examines applied research concepts, methods, and skills to foster enlightened decision making in professional practice.

**STAT 703 - Statistical Methods for Natural Scientists**

Statistical concepts and methods basic to experimental research in the natural sciences; hypothetical populations; estimation of parameters; confidence intervals; parametric and nonparametric tests of hypotheses; linear regression; correlation; one-way analysis of variance; t-test; chi-square test. Pr.: Junior standing and equiv. of college algebra.

**MANGT 810 - Operations Management and Analysis**

The study of the role of operations systems in the provision of value for the customer. Operations systems design, capacity determination, resource requirements planning and control, theory of constraints, supply chain management, quality management and control and project management are discussed and analyzed.

**MANGT 820 - Behavioral Management Theory**

An in-depth analysis of the development of the behavioral bases of individual and group behavior in business, governmental, educational, and other organizations with emphasis on current research literature and applications.
COT 781 Capstone Experience in Professional Master of Technology

Students formulate, research and execute a project for industry partners to gain hands-on experience under expert guidance while integrating knowledge to solve complex problems. Students write a convincing proposal for a capstone experience, gather and analyze data, draw conclusions and present results. Teams of first- and second-year students may form to work on real-world projects. May be repeated up to three semesters, up to a total of six credit hours.

Sequence for full-time students

The following table shows the sequence for a full-time student. Note full-time student can choose to finish their program of study either in the Fall or Spring of their second year (Spring completion requiring them to be part-time for one semester).

<table>
<thead>
<tr>
<th>Fall Year 1</th>
<th>Spring Year 1</th>
<th>Summer Year 1</th>
<th>Fall Year 2</th>
<th>Spring Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>COT 701</td>
<td>COT 702</td>
<td></td>
<td>MANGT 810</td>
<td>Elective</td>
</tr>
<tr>
<td>Advanced</td>
<td>Applied</td>
<td></td>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>Research Skills and</td>
<td>Management and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td>Methods</td>
<td>Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>STAT 703</td>
<td></td>
<td>MANGT 820</td>
<td>COT 781</td>
</tr>
<tr>
<td></td>
<td>Statistical</td>
<td></td>
<td>Behavioral</td>
<td>Capstone</td>
</tr>
<tr>
<td></td>
<td>Methods for Natural</td>
<td>Management</td>
<td></td>
<td>Experience for</td>
</tr>
<tr>
<td></td>
<td>Sciences</td>
<td></td>
<td>Theory</td>
<td>Professional Master</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
<td></td>
<td>COT 781</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Capstone</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Experience for</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Professional Master</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(var credit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 credits</td>
<td></td>
<td>0-9 credits</td>
</tr>
<tr>
<td>COT 781 Capstone Experience for Professional Master of Technology (var credit)</td>
<td></td>
<td></td>
<td>COT 781 Capstone Experience for Professional Master of Technology (var credit)</td>
<td></td>
</tr>
</tbody>
</table>
**Sequence for part-time students**

The following schedule allows part-time students to graduate in either the Fall or Spring of their 5th year.

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td>COT 701 Advanced Technical Communications</td>
<td>COT 702 Applied Research Skills and Methods</td>
<td></td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td>Elective</td>
<td>STAT 703 Statistical Methods for Natural Sciences</td>
<td></td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
<td>Elective</td>
<td>MANGT 810 Operations Management and Analysis</td>
<td></td>
</tr>
<tr>
<td><strong>Year 4</strong></td>
<td>Elective</td>
<td>MANGT 820 Behavioral Management Theory</td>
<td>COT 781 Capstone Experience for Professional Master of Technology (var credit)</td>
</tr>
<tr>
<td><strong>Year 5</strong></td>
<td>COT 781 Capstone Experience for Professional Master of Technology (var credit)</td>
<td>COT 781 Capstone Experience for Professional Master of Technology (var credit)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credits</th>
<th>15</th>
<th>12-15</th>
<th>0-3</th>
</tr>
</thead>
</table>
3. PROGRAM FACULTY

3.1. What is the quality of the faculty?

The Professional Master of Technology Degree will benefit from the combined expertise of eight graduate faculty with terminal degrees. Together, the program faculty will be responsible for teaching, advising and supervision. Selected program faculty will also be designated coordinator roles in admissions, assessment, program review, and accreditation.

<table>
<thead>
<tr>
<th>Name of Program Faculty with Terminal Degree</th>
<th>Rank</th>
<th>Terminal Degree Area</th>
<th>Other Teaching Area</th>
<th>Core Faculty</th>
<th>Graduate Faculty Member</th>
<th>PMT Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenneth Barnard</td>
<td>Professor</td>
<td>Education</td>
<td>Aviation</td>
<td>√</td>
<td>COT 713, COT 661</td>
<td></td>
</tr>
<tr>
<td>Raju Dandu</td>
<td>Professor</td>
<td>Mechanical Engineering</td>
<td>Engineering Technology</td>
<td>√</td>
<td>COT 720, COT 721</td>
<td></td>
</tr>
<tr>
<td>Don Von Bergen</td>
<td>Professor</td>
<td>Geology</td>
<td>Arts, Sciences, and Business</td>
<td>√</td>
<td>COT 781</td>
<td></td>
</tr>
<tr>
<td>Jung Oh</td>
<td>Professor</td>
<td>Chemistry</td>
<td>Arts, Sciences and Business</td>
<td>√</td>
<td>COT 702</td>
<td></td>
</tr>
<tr>
<td>Patricia Ackerman</td>
<td>Associate Professor</td>
<td>Education</td>
<td>Arts, Sciences, and Business</td>
<td>√</td>
<td>COT 781, COT 701</td>
<td></td>
</tr>
<tr>
<td>Rick Zajac</td>
<td>Professor</td>
<td>Physics</td>
<td>Arts, Sciences and Business</td>
<td>√</td>
<td>COT 650</td>
<td></td>
</tr>
<tr>
<td>Saeed Khan</td>
<td>Associate Professor</td>
<td>Electrical Engineering</td>
<td>Engineering Technology</td>
<td>√</td>
<td>COT 632, COT 731</td>
<td></td>
</tr>
<tr>
<td>Frederick Guzek</td>
<td>Associate Professor</td>
<td>Buisness</td>
<td>Arts, Sciences and Business</td>
<td>√</td>
<td>COT 781</td>
<td></td>
</tr>
<tr>
<td>Judith Collins</td>
<td>Associate Professor</td>
<td>English</td>
<td>Arts, Sciences and Business</td>
<td>In process</td>
<td>COT 701</td>
<td></td>
</tr>
<tr>
<td>James J. Higgins</td>
<td>Professor</td>
<td>Statistics</td>
<td>Statistics</td>
<td>√</td>
<td>STAT 703</td>
<td></td>
</tr>
<tr>
<td>Schwin Sheu</td>
<td>Professor</td>
<td>Management</td>
<td>Management</td>
<td>√</td>
<td>MANGT 810</td>
<td></td>
</tr>
<tr>
<td>Brian Niehoff</td>
<td>Professor</td>
<td>Management</td>
<td>Management</td>
<td>√</td>
<td>MANGT 820</td>
<td></td>
</tr>
</tbody>
</table>

Bolded courses are in the core

CVs of K-State Salina Faculty will be appearing in the Appendix B.

Faculty Motivation:

As stated previously, the primary motivating factors for offering the new degree include creating advanced degree opportunities for all COTA graduates, meeting the workforce needs of local industry, and enhancing the College’s applied research capabilities; however, in order to keep the faculty motivated, the following accommodations will be made for their participation in the graduate program,

1. Graduate faculty will be relieved of equivalent undergraduate teaching responsibility when teaching graduate-level courses.

2. In terms of teaching load calculations, one semester credit hour of graduate instruction is equal to one and one-half semester credit hours of undergraduate lecture instruction.
3. Supervision of graduate students enrolled in the professional master’s degree program is provided workload credit only to the chairperson of the graduate committee. One semester hour of teaching load credit will be given for every six credit hours of graduate coursework completed by the graduate students the committee chairperson supervises (this is for being the Major Professor regardless of the courses that their advisees take). An individual graduate faculty member, who serves as a Major Professor, can receive a maximum of three credit hours of teaching workload credit for supervision of each individual graduate student for which they have been assigned chairperson.

3.2 How many graduate assistants will serve the program?

Graduate assistants may be hired to help with research and teaching. Any hiring will be contingent on external funding or undergraduate teaching support openings.
4. ACADEMIC SUPPORT

4.1. What are the academic support services for this program?

Media Services
The K-State at Salina Media Services provides instructional equipment, equipment training and media service consulting for COTA instructors. Media services are also available to coordinate training and facilitation for online courses.

Writing Center
The K-State at Salina Writing Center provides one-on-one writing instruction to faculty, staff, and students across all disciplines and should also be able to provide support to graduate students. Trained peer tutors assist students with all phases of the writing process, including development, writing, organization, and editing. Writing Center tutors are also cross-trained with Career Services to assist students with the development and writing of professional resumes and cover letters. The Writing Center is currently considering options to help online students such as dialoguing with users over web based systems.

Office of Student Life
The Office of Student Life provides leadership opportunities and development. It will oversee all PMT student club and activities. The Office of Student Life also provides classes in leadership development.

Office of Career Services
The Office of Career Services provides assistance in job placement and provides counseling in choosing a career, developing a resume, and practicing interview techniques. Career Services coordinates interviews with employers seeking job applicants and coordinates the campus’ career fair each spring.

Continuing Education
The Division of Continuing Education offers workshops, seminars, and short-term and full-term courses in the fields of technology. Special courses can be designed to meet the needs of individuals, groups, and organizations. These services can be provided on campus, in-plant, or in communities where technical services are needed but not readily available. Continuing education units may be granted in appropriate cases.

K-State Online
K-State Online, an Internet based learning management system, transforms the everyday classroom into interactive web sessions for K-State's on-campus and distance education communities. It extends and enhances K-State course instruction, enabling students with time and geographic restrictions to take advantage of the flexibility of learning over the Internet.

K-State at Salina Library
K-State at Salina students have access to 188 electronic databases that span multiple disciplines. These databases provide access to 2,312 electronic journals in engineering and aviation; 3,544 electronic journals in business, economy, and management; and 709 electronic journals in mathematical sciences.

At the request of Department of Aviation, the library spent ¼ of our annual collection budget in FY2009 to build up resources in aviation safety and management. In FY2009, the library spent
approximately $500 on materials focusing on Lean Six Sigma Methods. The K-State at Salina Library will commit to spending ½ of its FY2010 (estimated $7,000 - $10,000) collection budget to filling gaps in the collection needed to support the Professional Master of Technology Program. This will support the addition of approximately 80 – 120 new resources in the library’s collection. Library staff will examine course syllabi and work with the graduate faculty to build the physical collection in the areas of RF technology, applied research skills and methods, management, plant equipment, and applied electromagnetics. New material will be purchased in both print and electronic book formats. Additional new resources will continue to be funded by a 3% SRO set aside for the library.

The current library facility is physically limited in its ability to grow the print collection. Thus, the library will increase our reliance on Hale Library for advanced material. The library is in the process of working out an agreement for shared collections, which will improve Salina students’ ability to access and borrow Hale Library’s material. Graduate students will receive requested materials from Hale Library within 24 hours.

The library will work with engineering technology faculty over the next academic year to remove outdated materials from the collection in order to free up shelf space for new acquisitions. There is a significant amount of outdated reference materials (handbooks, standards, etc.) that are no longer printed and can now be located online. Library staff will collaborate with ET faculty to create an online information guide for this information to ensure access to current information is readily available.

Graduate students will be extended the same borrowing privileges as faculty: 120 day check out for books and 30 days for videos.

4.2. What new library materials and other forms of academic support are required beyond normal additions?

A future need is advanced training of current library reference and instruction staff in order to sufficiently be able to provide the necessary services to graduate students. The current library services are successful, but they are largely geared toward undergraduates. Reference services for graduate programs require professional knowledge in the field of training.

4.3. What new supporting staff will be required beyond normal additions?

No new staff requirements are anticipated in the short run.
5. **FACILITIES AND EQUIPMENT**

Almost all the classrooms in the College of Technology and Aviation are media friendly. COTA also has the capability of delivering distance education both synchronously and asynchronously using a variety of formats using web tools, A/V, TELNET and other methods. While all courses offered by the program can benefit from the previously listed resources, the courses which **require lab facilities** have been tabulated below.

<table>
<thead>
<tr>
<th>Course Number and Name</th>
<th>Special Equipment Needs</th>
<th>Equipment Available</th>
<th>Lab where equipment is located</th>
</tr>
</thead>
<tbody>
<tr>
<td>COT 632 RF Technology</td>
<td>Network Analyzer, Spectrum Analyzer, and assorted test equipment</td>
<td>yes</td>
<td>Instrumentation Lab</td>
</tr>
<tr>
<td>COT 731 Applied Electromagnetics</td>
<td>Network Analyzer, Spectrum Analyzer, and assorted test equipment</td>
<td>yes</td>
<td>Instrumentation Lab</td>
</tr>
<tr>
<td>COT 781 Capstone Experience in Professional Master of Technology</td>
<td>Variable</td>
<td>Projects needing equipment can be designed based on resources at hand or using grant money when applicable</td>
<td>Various lab facilities around COTA campus</td>
</tr>
</tbody>
</table>

To summarize,

a. No new facilities anticipated;

b. No new technology needs for instructional support anticipated;

c. The K-State at Salina Library will commit to spending ½ of its FY2010 (estimated $7,000 - $10,000) collection budget to fill gaps in the collection needed to support the Professional Master of Technology Program.
6. PROGRAM REVIEW, ASSESSMENT AND ACCREDITATION

6.1. What program review process or evaluation methods will be used to review the program?

The program review process will be conducted through internal reviews, graduate mid-cycle reviews, and Full BOR reviews.

Internal Review:

Program faculty will gather once during the academic year and at the end of each year to analyze the assessment data and to discuss ways and means to improve student achievement. This data will also be shared with PMT industrial advisory committee members (see table below), employers, alumni and other constituents for their input and recommendations on improving student performance during an internal review. Although the data gathered in the first year of the two-year cycle is partial, enough coverage of outcomes is available at that stage to identify certain program strengths and weaknesses. At the end of the second year the results of assessing the capstone experience will be available and a complete assessment of the program is possible. As shown in figure 2, an internal review cycle ends in the Spring Semester every two years and begins in the Fall Semester of the same year.

Graduate Mid-Cycle Review and Full BOR Review:

The anticipated BOR review schedule is shown in the figure 2. The BOR review is being scheduled to match with the similar programs and one full-cycle of interval review data will be available for the first BOR review. The first anticipated mid-cycle review will occur after three full-cycles of internal reviews are completed.

<table>
<thead>
<tr>
<th>Member Name</th>
<th>Organization</th>
<th>Position</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darian Bebout</td>
<td>Boeing Integrated Defense</td>
<td>B-52 EHF Program Manager</td>
<td>In-state</td>
</tr>
<tr>
<td>Doug Oliphant</td>
<td>KASA Industrial Controls</td>
<td>Vice President</td>
<td>Local</td>
</tr>
<tr>
<td>Chuck Jarnot</td>
<td>Jarnot Aerospace</td>
<td>President</td>
<td>In-state</td>
</tr>
<tr>
<td>Tim Rogers</td>
<td>Salina Airport Authority</td>
<td>Executive Director</td>
<td>Local</td>
</tr>
<tr>
<td>Kevin Miesbach</td>
<td>Duncan Aviation</td>
<td>Avionics Instrument Shop Manager</td>
<td>Out of State</td>
</tr>
<tr>
<td>John Ourada</td>
<td>Consultant</td>
<td>Consultant</td>
<td>Local</td>
</tr>
</tbody>
</table>

Note: While the above individuals have been invited to join the industrial advisory board for the PMT, this is only a subset of industry advisors who have provided input from the program.
6.2. What student learning outcomes and measures will be used to assess the program’s effectiveness?

**Student Learning Outcomes for the Professional Master of Technology (PMT) Degree:**

The program student learning outcomes (SLOs) are provided below (Table 6). These outcomes will be rigorously assessed (as discussed later in the assessment section) to ensure the quality of the program (discussed later in the assessment section). A mapping of our SLOs to Kansas State University’s Graduate SLO can be seen in table 8. Using our scheme all outcomes are assessed in a two-year cycle.

<table>
<thead>
<tr>
<th>Table 6. Student Learning Outcomes for Professional Master of Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SLO 1</strong> Demonstrate ability to apply project management techniques to the workplace.</td>
</tr>
<tr>
<td><strong>SLO 2</strong> Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.</td>
</tr>
<tr>
<td><strong>SLO 3</strong> Demonstrate ability to apply skills and knowledge in one’s emphasis area.</td>
</tr>
<tr>
<td><strong>SLO 4</strong> Demonstrate ability to write clear and effective technical reports, proposals, presentations, and business correspondence.</td>
</tr>
<tr>
<td><strong>SLO 5</strong> Demonstrate ability to orally communicate technical information to a variety of audiences.</td>
</tr>
<tr>
<td><strong>SLO 6</strong> Demonstrate understanding of relevant professional ethics and social responsibility.</td>
</tr>
</tbody>
</table>

**Outcomes Assessment Plan:**

All program outcomes are to be assessed within a two-year cycle. Program level assessment in this scheme is based on compiled data from course level assessment. Course level assessment data is then mapped to program level data using a procedure discussed in the section on course level assessment to follow. Table 7 lists courses within which a particular outcome can be assessed. From the table one can see that it is possible to assess more than one outcome within any single course.
<table>
<thead>
<tr>
<th>Professional Master of Technology SLOs</th>
<th>COT 781, Certain Electives</th>
<th>COT 701, COT 702, STAT 703, COT 781, Certain Electives</th>
<th>COT 702, COT 781, Certain Electives</th>
<th>COT 701, COT 702, COT 781, Certain Electives</th>
<th>COT 701, COT 702, COT 781, Certain Electives</th>
<th>COT 781</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO 1</td>
<td>Demonstrate ability to apply project management techniques to the workplace.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SLO 2</td>
<td>Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SLO 3</td>
<td>Demonstrate ability to apply skills and knowledge in one’s emphasis area.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SLO 4</td>
<td>Demonstrate ability to write clear and effective technical reports, proposals, presentations, and business correspondence.</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>SLO 5</td>
<td>Demonstrate ability to orally communicate technical information to a variety of audiences.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SLO 6</td>
<td>Demonstrate understanding of relevant professional ethics and social responsibility.</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Relationship to K-State Student Learning Outcomes to K-State Graduate SLOs:

Table 8. Mapping of K-State SLOs with Professional Master of Technology SLOs

<table>
<thead>
<tr>
<th>K-State Graduate SLOs</th>
<th>Professional Master of Technology SLOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SLO1</td>
</tr>
<tr>
<td>Knowledge: Demonstrate thorough understanding and/or</td>
<td></td>
</tr>
<tr>
<td>competency in a specific area of emphasis, study,</td>
<td>✓</td>
</tr>
<tr>
<td>or profession.</td>
<td></td>
</tr>
<tr>
<td>Skills: Demonstrate the ability to apply knowledge</td>
<td></td>
</tr>
<tr>
<td>through critical thinking, inquiry, analysis, and</td>
<td>✓</td>
</tr>
<tr>
<td>communication to solve problems and to produce</td>
<td></td>
</tr>
<tr>
<td>scholarly and creative works including but not</td>
<td></td>
</tr>
<tr>
<td>limited to design, art, performance, original</td>
<td></td>
</tr>
<tr>
<td>research in the form of thesis or dissertation.</td>
<td></td>
</tr>
<tr>
<td>Attitudes and Professional Conduct:</td>
<td></td>
</tr>
<tr>
<td>Exhibit an awareness of their responsibilities</td>
<td>✓</td>
</tr>
<tr>
<td>(professional integrity, ethical behavior, ability to</td>
<td></td>
</tr>
<tr>
<td>work with diverse groups of peoples, etc.) and</td>
<td></td>
</tr>
<tr>
<td>engage in professional conduct towards all</td>
<td></td>
</tr>
<tr>
<td>constituent groups, including students, faculty,</td>
<td></td>
</tr>
<tr>
<td>public, etc.</td>
<td></td>
</tr>
</tbody>
</table>

How and where will the learning outcomes be assessed?

Student learning outcomes are to be assessed from data gathered for course level assessment that are subsequently mapped to program outcomes. Assessment scheme measures and guidelines are defined as follows.

Measures to be used:

Each outcome is to be evaluated by multiple direct measures including locally developed tests, homework assignments, projects, labs, a capstone experience, portfolios, and essay questions. Anonymous student surveys of course outcomes are to be the primary source of indirect measures.

Standards to be used:

Direct Assessment Guidelines
Criteria used to evaluate each outcome (unless specifically stated otherwise):

- 80% of students earn a grade equivalent to 85% or more in an assignment: **Outcome is met**.
  
  If **outcome is not met**, action is indicated regarding objective and/or criteria.

- In calculating grade averages (entire class or random selection), only grades from students who attempted the task are to be considered.

Indirect Assessment Guidelines
Students will be given an opportunity to provide input on how well course outcomes are covered. The degree of coverage will be scored in a 0-5 scale, 5 being the highest level of coverage. The following criteria, unless specifically stated otherwise, will be used to evaluate each objective:

- Sample average on any particular outcome **not more than 0.5 below** the PMT program mean: **Outcome met**.
- Sample average on any particular outcome **more than 0.5 below** the PMT program mean: **Outcome is not met**. Immediate action is required regarding objective and/or criteria.
**Course Level Assessment:**

In course level assessment, instructors start by setting up course outcomes and mapping each course outcome to program outcomes that apply. The successful achievement (outcome met) or failure (outcome not met) of any course outcome will be counted as one instance of the successful achievement or failure of all program outcomes that map into this course outcome. All course outcomes will be directly assessed by the instructor through an individualized selection of assignments and grading rubrics. For indirect assessment, students will take a survey on how well they felt course outcomes have been covered. An example of how program data can be gathered from course level assessment can be seen in Table 8(a). Note how table 8(a) is being used simultaneously to assess course outcomes and program outcomes using a set of assignments used by the instructor using the standards for direct assessment laid out earlier. The last column in table 6(a) contains data can be used in program level assessment.

**Program Assessment:**

Program level assessment is based on data gathered from the assessment of several courses. Every successfully or unsuccessfully “met” course outcome is seen as one instance of “outcome met” or “outcome not met” for each of the program outcomes that can map into it. The program outcome related data from all course level assessment is collated for program review. A relatively high number of failures on any program outcome may be seen as a cause for concern and need for immediate action. The following example chart (fig 3) provides an illustration of how well the programs SLOs are being achieved. This chart could be used to identify weaknesses and to carry out the process of continuous improvement. This data would also be shared with industrial advisory committee members, employers, alumni and other constituents for their input.
Table 8(a)
An example of table for gathering assessment data at the course level
COURSE XXXXXXX

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Collect date</th>
<th>Direct Or Indirect</th>
<th>Satisfactory Level for Indirect (0-5)</th>
<th>% of students getting more than 85% grade</th>
<th>Material Assesses the following course outcome</th>
<th>PMT Program outcome areas covered</th>
<th>Actions Needed (None if Met)</th>
<th>Program Outcome Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1 Q. 1 &amp; 2</td>
<td>March 14, 2006</td>
<td>direct</td>
<td>100%</td>
<td>Understanding the different components of an RF communication System</td>
<td>2, 3</td>
<td>None</td>
<td>PMT Outcome 2 met in 5 instances and failed in 2 instances.</td>
<td></td>
</tr>
<tr>
<td>Exam 1 Q. 3</td>
<td>March 14, 2006</td>
<td>direct</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>3.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Exam Q. 1</td>
<td>Feb 2 2006</td>
<td>direct</td>
<td>60%</td>
<td>Design and build RF amplifiers</td>
<td>2,3</td>
<td>Do more design examples of RF amplifiers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>4.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS antenna project</td>
<td>5 May 2006</td>
<td>direct</td>
<td>100%</td>
<td>Design and build an impedance matching network</td>
<td>2,3</td>
<td>None</td>
<td>PMT Outcome 3 met in 5 instances and failed in 2 instances.</td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPS antenna project</td>
<td>5 May 2006</td>
<td>direct</td>
<td>100%</td>
<td>Design and build a satellite communication antenna</td>
<td>2,3</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>4.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exam 1 Q. 5</td>
<td>8 May 2006</td>
<td>direct</td>
<td>80%</td>
<td>Understand the role of software in modern wireless design</td>
<td>2,3</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exam 1 Q. 4</td>
<td>8 May 2006</td>
<td>direct</td>
<td>100%</td>
<td>Understand the role of transmission lines in wireless design</td>
<td>2,3</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>4.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Exam Q. 2</td>
<td>8 May 2006</td>
<td>direct</td>
<td>100%</td>
<td>Study of a complete wireless receiver</td>
<td>2,3</td>
<td>More HW and quizzes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>8 May 2006</td>
<td>indirect</td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fig 3. Sample plotted assessment data reveals weakness in outcomes 4 and 6.

**When will these outcomes be assessed?**

As previously mentioned, all SLOs will be assessed over the course of a two-year period. In table 8 (b), column 2 lists courses that are to be used to assess program outcomes. Column 3 lists the program SLOs that may be assessed from each of the courses to the left. It should be noted that with this scheme each outcome, at a minimum, is being assessed two separate times during in the degree (SLO 1 is assessed twice from the Cumulative Experience, once mid-way and once upon completion).

<table>
<thead>
<tr>
<th>Year, Courses Assessed</th>
<th>Program SLOs assessed from course assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
</tr>
<tr>
<td>COT 701 Advanced Technical Communications</td>
<td>2, 4, 5</td>
</tr>
<tr>
<td>COT 702 Applied Research Skills and Methods</td>
<td>3, 6</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
</tr>
<tr>
<td>COT 781 Capstone Experience for Professional Master of Technology</td>
<td>1, 2, 3, 4, 5, 6 (SLO 1 is assessed twice, once mid-way and once upon completion)</td>
</tr>
</tbody>
</table>
Format for Assessment Results:

Assessment results will be put into graphical format (as in fig. 3) for discussion leading to program improvement. Separate charts will be prepared for direct assessment and indirect assessment. The plot will provide following information,

1. Number of instances that any outcome has been assessed.
2. The number of times each outcome was successfully achieved.
3. The number of times that an outcome was unsuccessfully achieved (failures).
4. A high percentage of failures will indicate areas where attention needs to be focused.
7. **COST OF PROGRAM:**

The College and Aviation and Technology (COTA), intends to cover expenses related to the new PMT program through reallocation. Under a conservative estimate, that allows twenty-two graduates during the first four years of the program using assumptions that are more likely to overestimate cost and underestimate revenue. Based on the assumptions below we have calculated the reallocation amount for the entire program to be only about $12,550.00/year for the first four years. The calculations were completed in using the following assumptions.

Assumptions Used in Calculation:

1. Funding for the entire program will come from reallocation of funds.

2. Graduate faculty will be relieved of equivalent undergraduate teaching responsibility when teaching graduate-level courses.

3. In terms of teaching load calculations, one semester credit hour of graduate instruction is equal to one and one-half semester credit hours of undergraduate lecture instruction.

4. Supervision of graduate students enrolled in the professional master’s degree program is provided work credit *only* to the *chairperson* of the graduate committee. One semester hour of teaching load credit will be given for every six credit hours of graduate coursework completed by the graduate students the committee chairperson supervises.

5. An individual graduate faculty member can receive a maximum of three credit hours of teaching workload credit for supervision of each individual graduate student for which they have been assigned chairperson.

6. Adjunct faculty/teaching assistants will cover the undergraduate teaching obligations that result from assumptions 2, 3, 4, and 5.

7. College of Technology and Aviation replacement Faculty will be paid at an average rate of $750 per credit hour.

8. Our conservative estimate of full-time students, part-time students, and PMT graduates during the first four years is provided in the table below.

<table>
<thead>
<tr>
<th></th>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
<th>Four Year Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-time Students</strong></td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Part-time Students</strong></td>
<td>5</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Assumed Number of Graduates</strong></td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>22</td>
</tr>
</tbody>
</table>
9. We will be teaching the following courses at COTA (remaining courses are being covered by other colleges):

<table>
<thead>
<tr>
<th>Term</th>
<th>First Year</th>
<th>Second Year Onward</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
<td>1. COT 701 Advanced Technical Communication (3);</td>
<td>1. COT 701 Advanced Technical Communication (3);</td>
</tr>
<tr>
<td></td>
<td>2. COTA Elective (3);</td>
<td>2. COT 781 Capstone Experience for Professional Master of Technology (var. taken as 3 for calculation);</td>
</tr>
<tr>
<td></td>
<td>3. COTA Elective (3);</td>
<td>3. COTA Elective (3);</td>
</tr>
<tr>
<td></td>
<td>4. COTA Elective (3);</td>
<td>4. COTA Elective (3);</td>
</tr>
<tr>
<td><strong>Spring Semester</strong></td>
<td>1. COT 702 Applied Research Skills and Methods (3);</td>
<td>1. COT 702 Applied Research Skills and Methods (3);</td>
</tr>
<tr>
<td></td>
<td>2. COT 781 Capstone Experience for Professional Master of Technology (var. taken as 3 for calculation);</td>
<td>2. COT 781 Capstone Experience for Professional Master of Technology (var. taken as 3 for calculation);</td>
</tr>
<tr>
<td></td>
<td>3. COTA Elective (3);</td>
<td>3. COTA Elective (3);</td>
</tr>
<tr>
<td></td>
<td>4. COTA Elective (3);</td>
<td>4. COTA Elective (3);</td>
</tr>
<tr>
<td><strong>Summer</strong></td>
<td>1. COT 781 Capstone Experience for Professional Master of Technology (var. taken as 3 for calculation);</td>
<td>1. COT 781 Capstone Experience for Professional Master of Technology (var. taken as 3 for calculation);</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td>24</td>
<td>27</td>
</tr>
</tbody>
</table>

Note: Using the above table the College Technology and Aviation (COTA) is obligated to teach 24+(3x27)=105 credits (during the first four years).

10. Cost calculations are based on the total number graduates and the number of credits taught (assumptions 8 and 9).

11. For revenue calculations, we assume that the average student takes 20 credit hours from K-State at Salina. Therefore, each graduate generates 10 credit hours of tuition money for COTA (2/3 of SCH revenue goes to College of Technology and Aviation).

12. It is assumed that each full-time student takes an average of 15 credits hours/yr (while full-time students without assistantship average 18 credits hours /yr and with assistantships average 12 credits hours /yr) and part-time students take an average of 6 credit hours/yr.

13. No significant OOE expense anticipated other than cost of printing and teacher supplies. All program faculty already have travel money and other anticipated expenses budgeted with their current positions and no new permanent faculty will be hired.
### Table. Projected revenue and expense.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Credit Hours to Graduate</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Av. Credit Hours from Salina,</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Av. Credit Hours from Manhattan</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Current</td>
<td>Year 1</td>
<td>Year 2</td>
<td>Year 3</td>
<td>Year 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Fall 2009</td>
<td>Fall 2011</td>
<td>Fall 2012</td>
<td>Fall 2013</td>
<td>Fall 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Graduate rate per credit hour</td>
<td>$279.90</td>
<td>$288.30</td>
<td>$296.95</td>
<td>$305.85</td>
<td>$315.03</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Cost of Adjunct to back-fill Undergrad courses</td>
<td>$700.00</td>
<td>$725.00</td>
<td>$750.00</td>
<td>$775.00</td>
<td>$800.00</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Number of full-time students</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Number of part-time students</td>
<td>6</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Total SCH</td>
<td>105</td>
<td>105</td>
<td>207</td>
<td>249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Salina SCH</td>
<td>70</td>
<td>110</td>
<td>138</td>
<td>168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Manhattan SCH</td>
<td>35</td>
<td>55</td>
<td>68</td>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Credit hour release time for advising</td>
<td>0</td>
<td>15</td>
<td>21</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Graduates</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Undergraduate equivalent credit hours requiring Adjunct faculty</td>
<td>36</td>
<td>63</td>
<td>72</td>
<td>85.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Adjunct Cost</td>
<td>$26,100.00</td>
<td>$10,980.40</td>
<td>$21,103.95</td>
<td>$30,271.19</td>
<td>$6,819.21</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Revenue Generated</td>
<td>55% (MHK)</td>
<td>44% (Salina)</td>
<td>45% (Total)</td>
<td>45% (Total)</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

#### Forms Provided with Proposal

There are three forms that will be prepared and submitted with the proposal:

- **a. Summary of Proposed Academic Program**
- **b. Curriculum Outline for Proposed Academic Program**
- **c. Fiscal Summary for Proposed Academic Program**
## New Degree Request – Kansas State University

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Program Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Program Identification (CIP code)</td>
<td>15.9999</td>
</tr>
<tr>
<td>2. Academic Unit</td>
<td>The PMT degree will be managed by the K-State Graduate School with courses being offered by the participating departments from the College of Aviation and Technology</td>
</tr>
<tr>
<td>3. Program Description</td>
<td>College of Technology and Aviation’s Professional Master of Technology Degree is designed to allow professionals in technology to thrive in today’s rapidly changing work environment. The program will be a professional degree that emphasizes the teaching of soft skills, along with the hard skills that focus on the technical requirements of the workplace. K-State’s institutional mission reflects the University’s commitment to developing “human potential, expanding knowledge, enriching cultural expression, and extending its expertise to individuals, business, education, and government. These responsibilities are addressed through an array of undergraduate and graduate degree programs… to prepare students for successful employment or advanced studies through a variety of disciplinary and professional degree programs…Kansas State University prepares its students to be informed, productive, and responsible citizens who participate actively in advancing cultural, educational, economic, scientific, and socio-political undertakings.” We believe that the proposed Professional Master of Technology (PMT) degree is completely compatible with the mission of the University.</td>
</tr>
</tbody>
</table>

As a professional program, the Professional Master of Technology Degree will by definition provide advanced skills in the areas of communication, leadership, project management, and teamwork. It will also provide unique opportunities for emphasizing in the broad areas of aviation, engineering technology, and technology management. All the three departments (Art, Science, and Business; Aviation; and Engineering Technology) from the College of Technology and Aviation (COTA) will combine to create highly individualized plans of study.

By capturing the niche of becoming the only professional master’s degree for technology professionals in the State of Kansas, the program has the ability to attract qualified college graduates and industry personnel from a variety of backgrounds, both regionally and nationally. From the College’s point of view, apart from creating advancement opportunities for all bachelor’s degree holders from the K-State College of Technology and Aviation (COTA), this program will also enhance the applied research capabilities leading to an intensified collaboration with regional industry.
### 4. Demand/Need for the Program

Prospective student demand for the program was assessed through two instruments: a current student survey and an alumni survey. The results obtained from both surveys seem to indicate that a majority of the respondents in each case would be interested in pursuing our Professional Master of Technology degree.

### 5. Comparative /Locational Advantage

The Professional Master of Technology program will have the advantage of being located in a growing industrial town only 90 miles from a large industrial base in Wichita, Kansas. Our two main target populations consist of our graduates and other technology professionals in the area who are seeking a professional degree. The degree that emphasizes the teaching of soft skills, along with the hard skills that focus on the technical requirements of the workplace and is therefore more student-centered from the perspective of aforementioned target groups. The idea of the professional degree, while relatively new, has emerged as a popular post-graduate alternative to a standard Master of Science (MS) Degree. K-State at Salina educators, industry representatives and alumni have a long term vested interest in the actualization of this program. The program aligns COTA resources to support the educational aspirations and career pathways of many Kansas citizens.

Our degree will also benefit in multiple ways from the strong ties that bind the College of Technology and Aviation with its industrial partners. Industry relationships will help us with ideas for real-world capstone projects and provide a source of guest lecturers among other things.

Our current list of industrial advisory council includes 100+ members from of the largest Kansas companies and would form an excellent pool from which to draw PMT advisory board members. The survey results and letters of support presented in sections 1.1-1.3 are a strong indication of support from alumni and industry representatives.

### 6. Curriculum

Students will develop advanced technical writing skills, project management skills, leadership skills, global skills, and other personal and interpersonal skills through a set of courses and a mandatory capstone experience. This part of the degree requirement will be referred to as “common core.” The common core will have a minimum of nineteen credits required and students will be able to select 9-11 credits of electives. Students in our Professional Master of Technology program will expand technical knowledge and applied research skills through a combination of the required capstone experience and advanced elective coursework.
7. Faculty Profile

The Professional Master of Technology Degree will benefit from the combined expertise of nine graduate faculty with terminal degrees from the K-State at Salina and three other main campus graduate faculty from Statistics and Management. While teaching responsibilities will be shared by the group only Salina program faculty will be responsible for teaching, advising and supervision. Selected program faculty will also be designated coordinator roles in admissions, assessment, program review, and accreditation.

8. Student Profile

When the student population stabilizes, we think that the part-time to full-time distribution ratio to be near 60% to 40% and the part-time students would mostly be employed in industry. It is anticipated that many of our recruits will come from COTA graduates, from one of its three departments provided they meet minimum admission criteria and recommendations of the admissions committee. As a minimum criteria we will require 3.0 or higher in the last 60 credits of formal coursework and three months of industry experience. Industry experience may be waived for students who plan on completing an internship while in the program. Graduates from other Colleges will also be able to apply to the program provided they satisfy the following criteria,

a. **Have a B.S. degree in the area of Engineering Technology; Professional Pilot; Aviation Maintenance; Technology Management; or a closely related field.**

b. **3.0 or higher in the last 60 credits of formal coursework.**

c. **Have a minimum of three months of industry experience at the time of admission (this criterion can be waived for students who plan to complete an internship requirement).**

d. **International students will need to meet English requirements set by the Graduate School.**
### 9. Academic Support

**Media Services**
The K-State at Salina Media Services provides instructional equipment, equipment training and media service consulting for COTA instructors. Media services are also available to coordinate training and facilitation for online courses.

**Writing Center**
The K-State at Salina Writing Center provides one-on-one writing instruction to faculty, staff, and students across all disciplines and should also be able to provide support to graduate students. Trained peer tutors assist students with all phases of the writing process, including development, writing, organization, and editing. Writing Center tutors are also cross-trained with Career Services to assist students with the development and writing of professional resumes and cover letters. The writing is currently considering options to help online students such as dialoguing with users over web based systems.

**Office of Student Life**
The Office of Student Life provides leadership opportunities and development. It will oversee all PMT student club and activities. The Office of Student Life also provides classes in leadership development.

**Office of Career Services**
The Office of Career Services provides assistance in job placement and provides counseling in choosing a career, developing a resume, and practicing interview techniques. Career Services coordinates interviews with employers seeking job applicants and coordinates the campus’ career fair each spring.

**Continuing Education**
The Division of Continuing Education offers workshops, seminars, and short-term and full-term courses in the fields of technology. Special courses can be designed to meet the needs of individuals, groups, and organizations. These services can be provided on campus, in-plant, or in communities where technical services are needed but not readily available. Continuing education units may be granted in appropriate cases.

**K-State Online**
K-State Online, an Internet based learning management system, transforms the everyday classroom into interactive web sessions for K-State's on-campus and distance education communities. It extends and enhances K-State course instruction, enabling students with time and geographic restrictions to take advantage of the flexibility of learning over the Internet.

**COTA Library**
COTA students have access to 188 electronic databases that span multiple disciplines. These databases provide access to 2,312 electronic journals in engineering and aviation; 3,544 electronic journals in business, economy, and management; Library staff will examine course syllabi and work with the graduate faculty and 709 electronic journals in mathematical sciences.

At the request of Department of Aviation, the library spent ¼ of our annual collection budget in FY2009 to build up resources in aviation safety and management. In FY2009, the library spent approximately $500 on materials focusing on Lean Six Sigma Methods. The K-State at Salina Library will commit to spending ½ of its FY2010 (estimated $7,000 - $10,000) collection budget to filling gaps in the collection needed to support the Professional Master of Technology Program. This will support the addition of approximately 80 – 120 new resources in the library’s collection. to build the physical collection in the areas of RF technology, applied research skills and methods, management, plant equipment, and applied electromagnetics. New material will be purchased in both print and electronic book formats. Additional new resources will continue to be funded by a 3% SRO set aside for the library.
10. Facilities and Equipment

| a. No new facilities anticipated; |
| b. No new technology needs for instructional support anticipated; |
| c. The K-State at Salina Library will commit to spending ½ of its FY2010 (estimated $7,000 - $10,000) collection budget to developing wholes in the collection needed to support the Professional Master of Technology Program. |


| All program student learning outcomes from Table 4 will be assessed over the course of time through a combination of both course assessment and program assessment. Table 6 shows where each outcome is assessed. Each outcome will be evaluated by multiple direct measures including locally developed tests, homework assignments, projects, labs, capstone experience, portfolios, and essay questions. Indirect measures will be taken through surveys of course outcomes conducted at the end of the semester. The surveys (indirect measures) will be filled in anonymously by students. |

The program outcomes are listed below:

**SLO 1**
Demonstrate ability to apply project management techniques to the workplace.

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**SLO 4**
Demonstrate ability to write clear and effective technical reports, proposals, presentations, and business correspondence.

**SLO 5**
Demonstrate ability to orally communicate technical information to a variety of audiences.

**SLO 6**
Demonstrate understanding of relevant professional ethics and social responsibility.
| 12. Costs, Financing | The College and Aviation and Technology (COTA), intends to cover expenses related to the new PMT program through reallocation. Under a conservative estimate, that allows twenty-two graduates during the first four years of the program using assumptions that are more likely to overestimate cost and underestimate revenue. Based on list of assumptions provide in the cost section, we have calculated the reallocation amount for the entire program to be only about $12,500.00/year for the first four years. The calculations were completed in using the following assumptions. |
I. Identify the new degree: Professional Master of Technology

II. Provide courses required for each student in the major:

<table>
<thead>
<tr>
<th>Course Name &amp; Number</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Courses</td>
<td>19-21</td>
</tr>
<tr>
<td>COT 701 Advanced Technical Communication (3)</td>
<td></td>
</tr>
<tr>
<td>COT 702 Applied Research Skills and Methods (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 703 Statistical Methods for Natural Sciences (3)</td>
<td></td>
</tr>
<tr>
<td>MANGT 810 Operations Management and Analysis (3)</td>
<td></td>
</tr>
<tr>
<td>MANGT 820 Behavioral Management Theory (3)</td>
<td></td>
</tr>
<tr>
<td>COT 781 Capstone Experience for Professional Master of Technology (4-6)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>9-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>COT 632 RF Technology (3)</td>
<td></td>
</tr>
<tr>
<td>COT 650 Analytical and Computational Tools for Engineering Technology (3)</td>
<td></td>
</tr>
<tr>
<td>COT 661 Airport Planning and Management (3)</td>
<td></td>
</tr>
<tr>
<td>COT 713 Advanced Aviation Safety Management (3)</td>
<td></td>
</tr>
<tr>
<td>COT 720 Application of Lean Six Sigma Methods (3)</td>
<td></td>
</tr>
<tr>
<td>COT 721 Reliability Centered Maintenance of Plant Equipment (3)</td>
<td></td>
</tr>
<tr>
<td>COT 731 Applied Electromagnetics (3)</td>
<td></td>
</tr>
<tr>
<td>COT 792 Problems in Master of Technology (var. 1-3)</td>
<td></td>
</tr>
<tr>
<td>COT 799 Special Topics in Professional Master of Technology (var. 1-3)</td>
<td></td>
</tr>
<tr>
<td>ECON 640 Industrial Organization and Public Policy (3)</td>
<td></td>
</tr>
<tr>
<td>IMSE 680 Quantitative Problem Solving Techniques (3)</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDITS 30
## Part I. Anticipated Enrollment

<table>
<thead>
<tr>
<th></th>
<th>Implementation Year</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-Time</td>
<td>Part-Time</td>
<td>Full-Time</td>
</tr>
<tr>
<td>A. Full-time, Part-time Headcount:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>B. Total SCH taken by all students in program</td>
<td>105 (Salina 70, Manhattan 35)</td>
<td>165 (Salina 110, Manhattan 55)</td>
<td>207 (Salina 138, Manhattan 69)</td>
</tr>
</tbody>
</table>

## Part II. Program Cost Projection

A. In implementation year one, list all identifiable General Use costs to the academic unit(s) and how they will be funded. In subsequent years, please include only the additional amount budgeted.

<table>
<thead>
<tr>
<th></th>
<th>Implementation Year</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Base Budget</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>$5,919 (see section 7)</td>
<td>$14,586 (see section 7)</td>
<td>$13,592 (see section 7)</td>
</tr>
<tr>
<td>OOE</td>
<td>See section 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$5,919</td>
<td>$14,595</td>
<td>$13,592</td>
</tr>
</tbody>
</table>

Indicate source and amount of funds if other than internal reallocation:

**PLEASE SEE SECTION 7 FOR COST ANALYSIS. ALL FUNDS COMING FROM INTERNAL REALLOCATION.**

Approved: ___________________
APPENDIX A

New Course Proposals
COURSE ADDITIONS:

ADD: **COT 632 RF Technology.** (3) II. An introduction to the theory and design of electronic circuits for communications emphasizing the implementation and analysis of common radio-frequency (RF) building blocks. Topics include s-parameters, the Smith chart, component behavior, RF test equipment, computer simulation, filter design, impedance matching, amplifiers, oscillators, mixers, and demodulators. A report will be required of all graduate students. Pr.: ECET 320.

RATIONALE: This course provides the fundamentals of RF theory and techniques. Students are also exposed to hardware and software tools commonly used in industry.

IMPACT: No impact on any other department.

CONTACT: Saeed Khan (826-2677 saeed@sal.ksu.edu)

EFFECTIVE DATE: Fall 2011.

ADD: **COT 650 Analytical and Computational Tools for Engineering Technology.** (3) I. Ordinary differential equations, vector algebra, vector calculus, partial differential equations and the separation of variables technique for solving wave equations. Students also perform simulation and analysis using software tools including MATLAB and MATHCAD. Pr.: MATH 221.

RATIONALE: This course provides engineering technology students with advanced math concepts that are not normally a part of the bachelor’s program. In doing so, students gain valuable experience with some analytical and computational tools used in industry.

IMPACT: No impact on any other department.

CONTACT: Saeed Khan (826-2677 saeed@sal.ksu.edu)

EFFECTIVE DATE: Fall 2011.
ADD: COT 661. Airport Planning and Management. (3) I. An overview of the Federal Aviation Regulation Part 139 airport design standard and airport master planning process. Includes a study of the role of the airport in community development. Advanced course project required. Pr.: PPIL 111.

RATIONALE: The purpose of this course is to help prepare students with foundational knowledge necessary for a job or career in airport management. Recognizing that airport management is a discipline unto itself, and recognizing that Kansas currently has 142 public-use airports with no formal training for the professional management of those airports, this certificate seeks to bridge that gap within the state.

IMPACT No impact on any other department.

CONTACT: Ken Barnard (826-2681 barnard@ksu.edu)

EFFECTIVE DATE: Fall 2011.

ADD: COT 701. Advanced Technical Communication. (3) I. Intensive writing practice, applying rhetorical principles to a number of genres common to non-academic professions and workplaces, including oral presentations. Introduction to allied topics such as document design and editing, and crafting technical presentations. Application of global information literacy and research methods will culminate in the preparation of a master’s project proposal. Pr.: ENGL 200 and ENGL 302.

RATIONALE: Recent surveys of employers hiring our graduates indicate a need for advanced technical communication skills. A survey of similar programs at competing regents schools identifies a consistent technical writing component in required core components.

IMPACT No impact on any other department.

CONTACT: Patricia Ackerman (826-2904 ackerman@ksu.edu)

EFFECTIVE DATE: Fall 2011.
ADD:  **COT 702 Applied Research Skills and Methods.** (3) II. Survey of qualitative and quantitative research methods; use of a range of tools to develop applied research skills focusing on literature reviews. Examines applied research concepts, methods, and skills to foster enlightened decision making in professional practice. Pr.: COT 701.

**RATIONALE:** This course provides students with effective methods to perform literature reviews, to survey research methods, skills, and topics related to program fields, and to apply these concepts to their Capstone experience and professional practice.

**IMPACT:** No impact on any other department.

**CONTACT:** Jung Oh (826-2915  jroh@ksu.edu)

**EFFECTIVE DATE:** Fall 2011

ADD:  **COT 713 Advanced Aviation Safety Management** (3) II. An examination of the development of safety and how safety management has become an important part of any company. Discusses Safety Management Systems and how this blueprint is becoming an integral part of most organizations, emphasizing specific governmental and corporate programs. Topics include management tools and techniques to aid in systematically controlling risk and developing a safety culture mind-set. Pr.: PPIL 450.

**RATIONALE:** This course addition will expands student understanding of Safety Management Systems in organizations and how they affect industries in and out of the aviation arena. This is becoming an incremental part of all well managed companies.

**IMPACT:** No impact on any other department.

**CONTACT:** Ken Barnard (826-2681  barnard@ksu.edu)

**EFFECTIVE DATE:** Fall 2011
ADD:  COT 720 Application of Lean Six Sigma Methods. (3) II. Six sigma and lean tools within an enterprise to improve product and process development, production operations, and service activities. Pr.: STAT 703.

RATIONALE: Businesses seek to maximize growth and achieve superior value delivery to customers. This course provides a basic understanding of application of lean and six sigma philosophies, methods, and tools to achieve quantifiable results to achieve business growth.

IMPACT: No impact on any other department.

CONTACT: Raju Dandu (826-2629 rdandu@ksu.edu)

EFFECTIVE DATE: Fall 2011

ADD:  COT 721 Reliability Centered Maintenance of Plant Equipment. (3) II. Reliability modeling and assessment, reliability-centered maintenance, condition monitoring technologies, and computer tools. Pr.: Graduate standing.

RATIONALE: Industries need more agility to compete globally and achieve productivity at the lowest cost. This course is aimed at providing an applied understanding of tools and technologies in the systematic process of maintaining, upgrading, and operating physical assets cost-effectively.

IMPACT: No impact on any other department.

CONTACT: Raju Dandu (826-2629 rdandu@ksu.edu)

EFFECTIVE DATE: Fall 2011
ADD: COT 731 Applied Electromagnetics (3) II. Fundamentals of electromagnetic wave phenomena primarily using transmission line theory to study practical applications such as antennas, cables, and waveguides. Includes a treatment EMI and related issues. Pr.: MATH 221 and ECET 320.

RATIONALE: This course is designed to provide students with a better understanding of the electromagnetic aspects of practical electronic devices and their design.

IMPACT: No impact on any other department.

CONTACT: Saeed Khan (826-2677 saeed@sal.ksu.edu)

EFFECTIVE DATE: Fall 2011

ADD: COT 781 Capstone Experience for Professional Master of Technology (Var.) I,II,S. Students formulate, research and execute a project for industry partners to gain hands-on experience under expert guidance while integrating knowledge to solve complex problems. Students write a convincing proposal for a capstone experience, gather and analyze data, draw conclusions and present results. Teams of first- and second-year students may form to work on real-world projects. May be repeated up to three semesters, up to a total of six credit hours. Pr.: Consent of instructor. Coreq.: COT 702.

RATIONALE: A capstone experience for the Professional Master of Technology degree is an important centerpiece and credential for future employment or promotion. This course provides students with effective methods to integrate problem solving skills in their professional practice fields with analytical, communication, team work and leadership skills.

IMPACT: No impact on any other department.

CONTACT: Jung Oh (826-2915 jroh@ksu.edu)

EFFECTIVE DATE: Fall 2011
ADD: **COT 792 Problems in Professional Master of Technology (Var.)** I,II,S. Opportunity for advanced independent study of a specific topic in one of the following areas: Aviation safety, engineering technology, or technology management. Topics selected jointly by student and the instructor. Pr.: Consent of instructor.

RATIONALE: Provides the option for independent study courses.

IMPACT: No impact on any other department.

CONTACT: Saeed Khan (826-2677 saeed@sal.ksu.edu)

EFFECTIVE DATE: Fall 2011

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RATIONALE: Provides the option for special topic courses.

IMPACT: No impact on any other department.

CONTACT: Saeed Khan (826-2677 saeed@sal.ksu.edu)

EFFECTIVE DATE: Fall 2011
Supplemental Information on Courses:

**Course Name and Description:**

**COT 632 RF Technology.** (3) II. An introduction to the theory and design of electronic circuits for communications emphasizing the implementation and analysis of common radio-frequency (RF) building blocks. Topics include s-parameters, the Smith chart, component behavior, RF test equipment, computer simulation, filter design, impedance matching, amplifiers, oscillators, mixers, and demodulators. A report will be required of all graduate students. Pr.: ECET 320.

**Rationale:**

This course provides the fundamentals of RF theory and techniques. Students are also exposed to hardware and software tools commonly used in industry.

**Instructor:**

Dr. Saeed M. Khan

**Instructor Qualifications:**

See CV in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**Course Information:**

<table>
<thead>
<tr>
<th>Week #</th>
<th>Material Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Maxwell SV tool for modeling resistors, inductors and capacitors and electromagnetic visualization</td>
</tr>
<tr>
<td>2</td>
<td>Circuit models for RF components (resistor, capacitor, and inductors). Design of torroidal inductors.</td>
</tr>
<tr>
<td>3</td>
<td>Review of Oscillators, Mixers, Demodulators</td>
</tr>
<tr>
<td>4</td>
<td>Receiver and Transmitter Topologies</td>
</tr>
<tr>
<td>5</td>
<td>Review of RF Semiconductor Devices</td>
</tr>
<tr>
<td>6</td>
<td>Filter Design: Filter types, frequency and impedance scaling.</td>
</tr>
<tr>
<td>7</td>
<td>Smith Chart, S-parameter Review, Impedance Matching, Software Tools for Impedance Matching</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>Small-Signal RF Amplifier Design using S-Parameters</td>
</tr>
<tr>
<td>9</td>
<td>RF Power Amplifiers Theory and Design</td>
</tr>
<tr>
<td>10</td>
<td>RF Front-End Design</td>
</tr>
<tr>
<td>11</td>
<td>RF Front-End Design</td>
</tr>
<tr>
<td>12</td>
<td>Software Defined Radio Basics</td>
</tr>
<tr>
<td>13</td>
<td>Microstrip Lines (preceded by a review of Transmission Line Theory)</td>
</tr>
<tr>
<td>14</td>
<td>Antennas</td>
</tr>
<tr>
<td>15</td>
<td>RF Design Tools</td>
</tr>
<tr>
<td>16</td>
<td>RFIC Design Flow</td>
</tr>
<tr>
<td>17</td>
<td>RFIC Design Flow</td>
</tr>
</tbody>
</table>

Class Report: Students will conduct a literature search in the field of RF Technology and complete a report on this technology prior to the final. A list of suggested topics will be provided prior at the start of classes, however students are free to make their own in consultation with the instructor.
**Course Name and Description:**

**COT 650 Analytical and Computational Tools for Engineering Technology.** (3) I.
The course includes following topics: ordinary differential equations, vector algebra, vector calculus, partial differential equations and the separation of variables technique for solving wave equations. Students also perform simulation and analysis using software tools including MATLAB and MATHCAD. Pr.: MATH 221.

**Rationale:**

This course provides engineering technology students with math concepts that are not normally a part of the bachelor’s program. In doing so, students gain valuable experience with some analytical and computational tools used in industry.

**Instructor:**

Dr. Richard Zajac

**Instructor Qualifications:**

See CV in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**Course Information:**

<table>
<thead>
<tr>
<th>Week #</th>
<th>Material Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>Introduction to Ordinary Differential Equations</td>
</tr>
<tr>
<td></td>
<td>Sample applications in Electric Circuits and Forced Oscillations</td>
</tr>
<tr>
<td>4</td>
<td>Using ODESOLVE function from MATHCAD and/or DSOLVE from MATLAB</td>
</tr>
<tr>
<td>5</td>
<td>Review of Vector Algebra</td>
</tr>
<tr>
<td>6</td>
<td>Using MATLAB in Vector Algebra problems; Use of SIMULINK</td>
</tr>
<tr>
<td>7-8</td>
<td>Vector differential Calculus, Vector Fields</td>
</tr>
<tr>
<td>9-12</td>
<td>Line Integrals, Surface Integrals, Gauss Theorem, Stokes Theorem</td>
</tr>
<tr>
<td>13-15</td>
<td>Partial Differential Equations</td>
</tr>
<tr>
<td></td>
<td>Modeling Heat Flow and Vibrating Membranes</td>
</tr>
<tr>
<td></td>
<td>Using PDESOLVE function from MATHCAD and PDE solver from MATLAB</td>
</tr>
<tr>
<td>16</td>
<td>Review</td>
</tr>
</tbody>
</table>
**Course Name and Description:**

**COT 661. Airport Planning and Management.** (3) I. An overview of the Federal Aviation Regulation Part 139 airport design standard and airport master planning process. Includes a study of the role of the airport in community development. Advanced course project required. Pr.: PPIL 111.

**Rationale:**

The purpose of this course is to help prepare students with foundational knowledge necessary for a job or career in airport management. Recognizing that airport management is a discipline unto itself, and recognizing that Kansas currently has 142 public-use airports with no formal training for the professional management of those airports, this certificate seeks to bridge that gap within the state.

**Instructor:**

R. Kurt Barnhart, PhD

**Instructor Qualifications:**

See CV in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 3**

Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**Course Information:**

Topics in this course will include be in the following areas:

- Planning, development, safety, history and operation of a modern airport

- The impact of federal and state regulations, environmental policies, operational safety, maintenance, airport inspections, and public relations

- Current legislation in airport system planning and forecasting; demand/capacity analysis; terminal and airside planning; and airport layout plans

- Areas of study will include FAA airport design requirements, master plans/engineering, regulation, business/administration, and public relations
Course Objective: This course is designed to provide the student with an understanding of airport management, operations and planning. In-depth analysis will be conducted of the airports manager’s responsibilities, purpose, and interface with the airport board, the city, state, and government officials. The student will study the airport system with emphasis focused on planning, operations, capacity, safety, financing, and administration. The student will gain an in-depth knowledge of the United States airport system. Finally, the social and political influences associated with running an airport will be explored.
Course Name and Description:

**COT 701. Advanced Technical Communication.** (3) I. Intensive writing practice, applying rhetorical principles to a number of genres common to non-academic professions and workplaces, including oral presentations. Introduction to allied topics such as document design and editing, and crafting technical presentations. Application of global information literacy and research methods will culminate in the preparation of a master’s project proposal. Pr.: ENGL 200 and ENGL 302.

Rationale:

Recent surveys of employers hiring our graduates indicate a need for advanced technical communication skills. A survey of similar programs at competing regents schools identifies a consistent technical writing component in required core components.

Instructor:

Dr. Judith Collins

Instructor Qualifications:

See CV in Appendix B.

PMT Student Learning Outcomes that addressed in this course:

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 4**
Demonstrate ability to write clear and effective technical reports, proposals, presentations, and business correspondence.

**SLO 5**
Demonstrate ability to orally communicate technical information to a variety of audiences.

Course Information:

Weeks 1-2: Proposal writing: student writes a proposal to do research. Proposal is reviewed and evaluated by thesis committee made up of at least one faculty specialist in the field and one writing instructor/professor.

Weeks 3-4: After any required revisions of the proposal, student commences a comprehensive review of literature relevant to the issue to be investigated. Oversight of the review is conducted by faculty specialist in the field and the head librarian at k-state Salina in collaboration with resource specialists at Manhattan libraries.

Week 5: Definition of the problem: The review of literature culminates in a succinct
statement of the problem, situated in an appropriate line of inquiry relevant to the field. To be approved by faculty specialist in the field.

Weeks 6-12: data is gathered

Weeks 13-14 data is analyzed

Weeks 14-15: Results are written, including conclusion and discussion

Week 16: Revisions are completed; an oral presentation is composed and presented (crafting technical presentations). Students are encouraged to seek publication in appropriate venues including online journals relevant to the field.
**Course Name and Description:**

**COT 702 Applied Research Skills and Methods.** (3) II. Survey of qualitative and quantitative research methods; use of a range of tools to develop applied research skills focusing on literature reviews. Examines applied research concepts, methods, and skills to foster enlightened decision making in professional practice. Pr.: COT 701.

**Rationale:**

This course provides students with effective applied research skills and methods to perform literature reviews, to survey research method and design topics related to program fields, and to apply these concepts to their thesis/project/report development and presentation as well as professional practice.

**Instructor:**

Dr. Jung Oh

**Instructor Qualifications:**

See CV in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**Audiences.**

**SLO 6**
Demonstrate understanding of relevant professional ethics and social responsibility.

**Course Information:**

With the proposed Professional Master of program based on various discipline backgrounds, the course focuses on (a) non-disciplinary/multidisciplinary approaches, using examples and practices taken from many fields and professional communities, (b) succinct coverage for a range of inquiry approaches, research design and process, qualitative, quantitative and mixed methods, and further investigation of applied research methods/skills commonly used in each student’s disciplines, (c) strong collaboration from instructor, students, program advisors, librarian to explore and build knowledge and critical skills that will be particular to, and useful for each student’s research project agenda and professional practices.

**Course Name and Description:**
COT 713 Advanced Aviation Safety Management (3) II. An examination of the development of safety and how safety management has become an important part of any company. Discusses Safety Management Systems and how this blueprint is becoming an integral part of most organizations, emphasizing specific governmental and corporate programs. Topics include management tools and techniques to aid in systematically controlling risk and developing a safety culture mind-set. Pr.: PPIL 450.

**Rationale:**

This course addition will expands student understanding of Safety Management Systems in organizations and how they affect industries in and out of the aviation arena. This is becoming an incremental part of all well managed companies.

**Instructor:**

Dr. Kenneth Barnard

**Instructor Qualifications:**

See CV in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 3**

Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**Course Information:**


**Course Outline**

**Module One**

- Lecture: Safety Basics
- Readings: Review chapters 1 thru 6
- Project: Safety Culture Discussion / Survey

**Module Two**

Readings: Chapters 7 thru 10

Project: On-line ORM.

**Module Three**

Lecture: Safety Program Elements, Risk Assessment, Hazard Analysis, and an introduction to accident investigation.

Projects: NTSB Case Studies, Risk Assessment, Hazard Analysis

Readings: Chapters 11 thru 16 and as directed by Instructor

**Module Four**

Lecture: Current safety issues / Safety Management Systems (SMS)

Readings: Chapters 24 – 26

Project / Presentations: SMS
Course Name and Description:

**COT 720  Application of Lean Six Sigma Methods.** (3) II. Six sigma and lean tools within an enterprise to improve product and process development, production operations, and service activities. Pr.: STAT 703.

Rationale:

Businesses seek to maximize growth and achieve superior value delivery to customers. This course provides a basic understanding of application of lean and six sigma philosophies, methods, and tools to achieve quantifiable results to achieve business growth.

Instructor:

Dr. Raju Dandu

Instructor Qualifications:

See CV in Appendix B.

PMT Student Learning Outcomes that addressed in this course:

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

<table>
<thead>
<tr>
<th>Course Topical Outline:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introduction to Lean Six Sigma</td>
</tr>
<tr>
<td>2 Lean Six Sigma Methodologies</td>
</tr>
<tr>
<td>3 Lean Tools and applications – Case Studies 5S, Value Stream Mapping, Kaizen Events, Mistake Proofing</td>
</tr>
<tr>
<td>4 Six Sigma – Introduction to DMAIC Process</td>
</tr>
<tr>
<td>5 Application of DMAIC</td>
</tr>
<tr>
<td>6 Lean Six Sigma Deployment – Case Studies</td>
</tr>
</tbody>
</table>

Class Report:
Students will work on three term papers as mini projects and presentations. Students will have an alternative to work on a single term project with project proposal and final written report and presentation.
Course Name and Description:

**COT 721 Reliability Centered Maintenance of Plant Equipment.** (3) II. Reliability modeling and assessment, reliability-centered maintenance, condition monitoring technologies, and computer tools. Pr.: Graduate standing.

Rationale:

Industries need more agility to compete globally and achieve productivity at the lowest cost. This course is aimed at providing an applied understanding of tools and technologies in the systematic process of maintaining, upgrading, and operating physical assets cost-effectively.

Instructor:
Dr. Raju Dandu

Instructor Qualifications:

See CV in Appendix B.

PMT Student Learning Outcomes that addressed in this course:

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

Course Topical Outline:

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to World Class Maintenance</td>
</tr>
<tr>
<td>2</td>
<td>Preventive Maintenance</td>
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<tr>
<td>5</td>
<td>RCM (Reliability Centered maintenance) Methodology-The systems Analysis Process</td>
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<tr>
<td>3</td>
<td>Application of RCM – Case Study</td>
</tr>
<tr>
<td>4</td>
<td>Alternative Analysis Methods</td>
</tr>
<tr>
<td>5</td>
<td>Condition Based Monitoring Technologies and applications</td>
</tr>
<tr>
<td>6</td>
<td>Industrial Experience with RCM – Selected Case Histories</td>
</tr>
</tbody>
</table>

Class Report:
Students will work on three term papers as mini projects and presentations. Students will have an alternative to work on a single term project with project proposal and final written report and presentation.
**Course Name and Description:**

**COT 731 Applied Electromagnetics (3)** II. Fundamentals of electromagnetic wave phenomena primarily using transmission line theory to study practical applications such as antennas, cables, and waveguides. Includes a treatment EMI and related issues. Pr.: MATH 221 and ECET 320.

**Rationale:**

This course is designed to provide students with a better understanding of the electromagnetic aspects of practical electronic devices and their design.

**Instructor:**

Dr. Saeed M. Khan

**Instructor Qualifications:**

See CV in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**Course Information:**

<table>
<thead>
<tr>
<th>Week #</th>
<th>Material Covered</th>
</tr>
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<tbody>
<tr>
<td>1-3</td>
<td>Introduction to Electromagnetic Fields</td>
</tr>
<tr>
<td></td>
<td>Transmission Lines</td>
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<tr>
<td></td>
<td>The SMITH TOOL package for Transmission Line Analysis</td>
</tr>
<tr>
<td>4-5</td>
<td>Electrostatics: Coulomb’s Law, Gauss’s Law, Electric Fields, Electric Flux Density, Electric Potential, Boundary Conditions, and Dielectrics</td>
</tr>
<tr>
<td></td>
<td>Using MAXWELL SV to visualize Electrostatic Phenomenon in practical devices and materials such as capacitors and dielectrics.</td>
</tr>
<tr>
<td>6-7</td>
<td>Magnetostatics: Biot-Savart Law, Ampere’s Circuital Law, Magnetic Flux Density, Magnetic Forces, Boundary Conditions, and Magnetic Materials</td>
</tr>
<tr>
<td></td>
<td>Using MAXWELL SV to visualize Magnetostatic Phenomenon in practical devices such as electromagnets and loudspeakers.</td>
</tr>
<tr>
<td>11-13</td>
<td>Plane Waves: General Wave Equation, Time-Harmonic Wave Equations, Propagation in Lossless Media, Propagation in Lossless/Lossy Dielectrics,</td>
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</tr>
<tr>
<td>14-15</td>
<td>Wave guiding: Rectangular, dielectric, Optical Fiber</td>
</tr>
<tr>
<td>16</td>
<td>Antenna Fundamentals</td>
</tr>
</tbody>
</table>

Propagation in Conductors, TE and TM reflection and transmission for Normal and Oblique Incidence.
**Course Name and Description:**

**COT 781 Capstone Experience for Professional Master of Technology (Var.) I,II,S.** Students formulate, research and execute a project for industry partners to gain hands-on experience under expert guidance while integrating knowledge to solve complex problems. Students write a convincing proposal for a capstone experience, gather and analyze data, draw conclusions and present results. Teams of first- and second-year students may form to work on real-world projects. May be repeated up to three semesters, up to a total of six credit hours. Pr.: Consent of instructor and faculty advisor. Coreq.: COT 702

**Rationale:**

A capstone experience for the Professional Master of Technology degree is an important centerpiece and credential for future employment or promotion. This course provides students with effective methods to integrate problem solving skills in their professional practice fields with analytical, communication, team work and leadership skills.

**Instructor:**

Will vary with time, most K-State Salina faculty associated with PMT may teach the course by rotation.

**Instructor Qualifications:**

See CVs in Appendix B.

**PMT Student Learning Outcomes that addressed in this course:**

**SLO 1**
Demonstrate ability to apply project management techniques to the workplace.

**SLO 2**
Demonstrate ability to perform self-directed inquiry, experimentation, and design in one’s emphasis area.

**SLO 3**
Demonstrate ability to apply skills and knowledge in one’s emphasis area.

**SLO 4**
Demonstrate ability to write clear and effective technical reports, proposals, presentations, and business correspondence.

**SLO 5**
Demonstrate ability to orally communicate technical information to a variety of audiences.
SLO 6
Demonstrate understanding of relevant professional ethics and social responsibility.

* Assessed at two points of the Capstone Experience, all other SLOs assessed once.

Course Information:

Students will be encouraged to take this course multiple times over two or more semesters for a total of 4-6 credits. The prerequisite for this course is COT 701 and student has already written a proposal to conduct research and that proposal has been reviewed and approved by the graduate committee made up of at least one faculty specialist in the field and one writing instructor/professor. It is expected that the student has already done some preliminary research in the area of interest and has taken or is currently taking the applied research methods course (COT 702). Armed with these tools the student will embark on his/her project. It is strongly desired the proposal is either sponsored by industry or approved by industry experts who have expertise in the field of work.
APPENDIX B

Faculty Curriculum Vitae
Raju Dandu
Engineering Technology Department

Education:
B.S./MS 1981 Slovak Technical University, Mechanical Engineering (Thermal and Nuclear Power Engineering)
Ph.D. 1991 North Dakota State University, Mechanical Engineering

Professional experience: (List current and three most recent positions)
2008 – Present Professor of Mechanical Engineering Technology, Kansas State University at Salina
1997 – 2002 Assistant Professor of Mechanical Engineering Technology, Kansas State University at Salina
1993 – 1997 Assistant Professor of Manufacturing Engineering, Program Coordinator, Universidad del Turabo, Gurabo, Puerto Rico.
1991 – 1992 Lecturer, Aero-Manufacturing Engineering Technology, North Dakota State University, Fargo, ND.

Publications


3. DeLeon, J. and Dandu, R. Easing the Transition from the Community College to an Engineering Technology Bachelor's Degree Program. IIME/INTERTECH Conference, Oct. 19-21, 2006, Kean University, NJ.


Research Experience

2002  Received patent for "Fluorescent Lamp for Recessed Ceiling Mounting."

1999 (Sept-Dec)
Worked with Varcom Consulting Company on a NASA Kennedy Space Center funded project titled "Engineering Study for the Analysis of Design Characteristics and Development of a Control System Implementation Plan for the Mars Simulation Chamber."

1997/88 Summer
Taught a course in Smart Structures and Mechatronics at University of Missouri-Rolla. NSF funded project for Under Graduate Research Experience in Smart Structures and Mechatronics.

1996 Summer Faculty Fellowship

1995 - 1996
Co-investigator of Sandia National Laboratories funded research in the area of Intelligent Materials and Structures. Work involved the use of piezoelectric materials as sensors and actuators in vibration control and damage detection of structures.

Industrial Experience

2007 Summer
Consultant for Cashco Inc., Ellsworth, K.S. Offered training in strain gage application in Product burst test to comply product certification of pressure reducing valves used in gas and petroleum industries.

2006-08 Summer
Consultant for Salina Vortex Inc. Recommend conformity assessment solutions for product CE marking and ATEX Certification. Prepared technical documentation, conducted product hazard analysis and testing to meet ATEX and Machinery Directive requirements to comply with CE declaration for European market.

2004-05 Summer
Offered professional development courses to Tony's Pizza employees in the areas of reliability centered maintenance, condition based monitoring (RCM), Vibration Analysis, Basic Process Controls and Measurement and PLC programming (AB ControlLogix Platform).

2001-03 Summer
Designed and developed energy efficient recessed downlight fixtures. Submitted proposal and prototypes to Pacific Northwest National Laboratory energy procurement competition. Developed business plan, marketing plan and cashflow for Maya Inc. Presented business plan to potential investors (Jackson City, Lincoln, Aboline, KTEC, SBIR). Submitted research and development proposal to Kansas Technology Enterprise Corporation (KTEC) and was awarded $100,000 to develop energy efficient recessed downlights.
Dr. Patricia E. Ackerman

Curriculum Vitae

Associate Professor of Language Arts

Kansas State University

College of Technology & Aviation

2110 Centennial Road

Salina, Kansas 67401

ackerman@cal21.kstate.edu

Residence:

2005 Game Road

Ablane, KS 67410

785-479-9690

Academic Mentor

785-826-3964

Dr. F. Todd Goodson

Education

Doctor of Philosophy: Curriculum & Instruction

Kansas State University College of Education

Primary Area – Reading & Language Arts Curriculum & Instruction

Secondary Area – Composition Rhetoric & Teaching Literacy

Manhattan, Kansas

Major Professor: Dr. F. Todd Goodson

Published Dissertation Title: The Application of Think-Aloud Protocols to Assess Higher Order Learning Strategies Employed During Tutorial Discourse Over College Student Writing.

Master of Arts: Liberal Studies

Emporia State University

Primary Area – English

Secondary Area – Composition & Rhetoric, Service Learning

Emporia, Kansas

Bachelor of Arts: English

Marymount College

Primary Area – English Literature

Secondary Areas – Journalism & French

Salina, Kansas

Primary Language Spoken – English

Secondary Languages: Spanish (Peace Corps HLT Training); French (Undergraduate Minor)

College Teaching Experience

Associate Professor of Language Arts

Kansas State University

College of Technology & Aviation

Salina, Kansas

2000 - Present

Courses Taught: PHIL 105 Introduction to Critical Thinking, ENGL 110 Expository Writing I, ENGL 320

Expository Writing II, DRL 360 Business Ethics, COT 300 Mastering Academic Conversations, ENGL 300 Technical Writing, COMM 100 Public Speaking

Administrative Duties: Researched, developed, and currently direct interdisciplinary campus Writing Center.

Adjunct Instructor of English

Emporia State University

2000

Barton County Community College

Great Bend, Kansas

Course Taught: English Composition I

Adjunct Instructor of English

1995-2000

Cloud County Community College

Junction City, Kansas

Course Taught: Composition I, Composition II, American Literature, Public Speaking
Nonacademic Employment Experience

Freelance Writer – Short fiction, poetry, and magazine articles  
2000 - Present

Freelance Grant Writing, Marketing, and Development Consultant  
1997 – 1999

Director of Marketing & Development  
Rolling Hills Refuge Wildlife Conservation Center  
Salina, Kansas  
1996 - 1997

Developed long-range marketing & development strategies. Collaborated on operational policies, volunteer programs, and visitor services. Researched, wrote, and implemented grant programs. Networked with local, regional, and state community leaders and marketing consortiums.

Convention & Visitors Bureau Director  
City of Abilene, Kansas  
1989 – 1996

Maintained Abilene’s position as a leader in the Kansas tourism industry. Developed marketing and promotional programs. Represented Abilene to regional, state, and national tourism alliances. Monitored economic indicators to assess development progress. Oversaw operations of a CVB office, year-round Kansas Visitor Information Center, and the Abilene Civic Center. Supervised staff and a thirty member volunteer corps. Prepared and administered annual departmental budget. Researched, wrote, and implemented grant programs.

Public Information Coordinator  
Central Kansas Mental Health Center  
Salina, Kansas  
1984 – 1986

Developed and implemented community education programs and public relations strategies for five North Central Kansas counties. Grant writing and implementation.

Health Educator  
Salina/Saline County Health Department  
Salina, Kansas  
1981 – 1984

Developed and implemented county-wide educational and licensing programs. Conducted public health educational seminars re: cardiac-pulmonary resuscitation, smoking cessation, maternal and child health, and public safety.

Peace Corps Volunteer  
United States Govt. – Peace Corps  
Community development and rural education in Guatemala, Central America  

Awards & Accomplishments

Kansas State University ADVANCE Lecture Series Award  
2008

Rex McArthur Faculty Fellowship Award  
2008

BIG 12 Faculty Fellowship  
2008

Project LEARN Fellowship w/Iowa State University  
2007 - 2008

K-State at Salina Professor of the Year  
2007

Presidential Award for Excellence in Undergraduate Teaching Nominee  
2006 & 2010

KSU Salina Advisor of the Year Nominee  
2005

Kansas State University Professor of the Week  
2005

Marchbanks Memorial Award for Teaching Excellence  
2005

KSU at Salina Professor of the Year Nominee  
2004

Kansas State University Community Service Grant Recipient  
2003

American Red Cross Clara Barton Women of Achievement Award  
1999

Fellowships

A Room of Her Own Foundation Writing Retreat Fellowship  
2009

National Writing Project Professional Writing Retreat Fellowship  
2009

Tilford Multicultural Grant Fellow – Interactive Theatre for Social Change  
2008

Project LEA/EN Partnership w/University of Iowa  
2007 - 2008

Coffman Leadership Institute Fellow  
2005

Tilford Multicultural Grant Fellow – Storytelling as a Pedagogical Tool  
2006

International Writing Center Association Institute Fellow  
2005

Writing Conference on College Teaching Fellow  
2005

National Writing Project Fellow  
2003 & 2004
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<tr>
<th>Leadership &amp; Service to Kansas State University &amp; Profession</th>
<th>Ackerman 3</th>
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<tbody>
<tr>
<td>Pine Ridge Reservation Service Learning Trip</td>
<td>2009</td>
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<tr>
<td>National Day on Writing Event – Advisor</td>
<td>2009</td>
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<tr>
<td>K-State at Salina ASAB President’s Showcase – Co-chair</td>
<td>2009</td>
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<td>K-State at Salina Final Exam – Campaign Chair</td>
<td>2007-2009</td>
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<td>Faculty Senate E-Portfolio Task Force</td>
<td>2009-2010</td>
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<td>Dean’s Campus Enhancement Team</td>
<td>2009</td>
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<td>Kansas Writing Project Leadership Coalition and Inquiry Team</td>
<td>2009-2010</td>
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<td>K-State at Salina African American Road-Run Volunteer</td>
<td>2009</td>
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<td>Unmanned Aerial Systems Online Professional Journal (Copy Editor)</td>
<td>2008-2010</td>
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<td>K-State Graduate Faculty Member</td>
<td>2008-2010</td>
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<td>K-State Colloquium Assessment of Academic Proficiency Participant</td>
<td>2009</td>
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<td>K-State University Ethics Work Group</td>
<td>2009-2010</td>
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<td>K-State at Salina Creative Writing Alliance (Advisor)</td>
<td>2009-2010</td>
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<td>Midwest Writing Center Association – Board Member &amp; 2009 Conference Committee</td>
<td>2009-2010</td>
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<td>Midwest Writing Center Association – Kansas Consortium (Chair)</td>
<td>2007-2010</td>
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<tr>
<td>Provost’s First Year Seminar Curriculum Task Force</td>
<td>2009-2009</td>
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<td>Provost’s Interdisciplinary Programs Task Force</td>
<td>2008</td>
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<td>First Year Seminar Pilot Course – Teaching Team</td>
<td>2009-2008</td>
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<td>K-State at Salina Career Committee</td>
<td>2007-2008</td>
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<td>Reference &amp; Instructional Librarians Search Committee</td>
<td>2005</td>
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<td>Earth Day Multicultural Planning Committee</td>
<td>2007</td>
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<td>K-State at Salina Master of Science In Technology Task Force</td>
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<td>K-State at Salina First Year Experience Curriculum Task Force</td>
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<td>Aviation Department Head Search Committee</td>
<td>2007</td>
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<td>K-State at Salina Departmental Committee on Planning</td>
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<td>Kansas State University Changing Lives Campaign (Campus Co-Chair)</td>
<td>2005</td>
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<td>KSU Salina Student Newspaper Advisor (On The Record)</td>
<td>2004-2009</td>
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<td>Kansas State University Honor Council</td>
<td>2005</td>
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<td>National Writing Project (Teacher Consultant)</td>
<td>2003-2010</td>
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<td>21st Century Educational Grant Participant (Service Learning Curriculum)</td>
<td>2003-2008</td>
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<td>KSU Salina Professional Development Committee (Co-Chair 2007-2009)</td>
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<td>KSU Salina Academic Development Editor Five Year Review (Chair)</td>
<td>2005</td>
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<td>Kansas State University Faculty Senator</td>
<td>2002-2005</td>
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<td>KSU Salina Socrates Café Coordinator</td>
<td>2003-2005</td>
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<td>KSU Academic Affairs Committee (Co-Chair)</td>
<td>2004</td>
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<tr>
<td>Flint Hills Writing Project Teacher Consultant</td>
<td>2003-2010</td>
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<td>KSU Faculty Senate Leadership Committee</td>
<td>2003-2004</td>
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<td>KSU Salina By Laws Committee</td>
<td>2005</td>
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<td>KSU Salina Course &amp; Curriculum Committee (Chair)</td>
<td>2002-2004</td>
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<td>KSU Salina College Accreditation &amp; Planning Committee</td>
<td>2003-2005</td>
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<td>KSU Salina Open House Participation (Planning Committee 2002)</td>
<td>2002-2010</td>
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<td>KSU Salina Multicultural Affairs Committee</td>
<td>2001-2004</td>
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<td>KSU Salina Science Olympiad (Judge)</td>
<td>2002</td>
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<td>KSU Salina Recycling Task Force</td>
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<td>Abilene Kansas Boys For Tots Campaign</td>
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<td>Arts Council of Dickinson County Classroom Educator</td>
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<td>Travel Industry Association of Kansas Board Member (’96 President)</td>
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<td>Northeast Kansas Tourism Region Board Member (’91-’93 President)</td>
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<td>L-70 Association of Kansas Board Member (’97 President)</td>
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<td>White House Conference on Tourism State Delegate (Washington, D.C.)</td>
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<td>Great Plains Theatre Festival Board Member (’96 President)</td>
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<td>Kansas Sports Hall of Fame Board Member</td>
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<td>Abilene Area Chamber of Commerce Board Member</td>
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<td>Abilene Area United Way Board Member</td>
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<tr>
<td>St. Andrew’s Home &amp; School Association President</td>
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<td>Eisenhower Centennial State &amp; National Planning Committees</td>
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<tr>
<td>Big Brothers/Big Sisters of Salina Board Member</td>
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</tbody>
</table>

90
Professional Memberships & Affiliations

A Room of Her Own, Women’s Writing Alliance—2000-2010
The Tilman Group on Multicultural Competencies—2006 & 2008 Grant Recipient
Welcome Conference on College Teaching—2005 Conference Presenter
Flint Hills Writing Project—Institute Fellow and Teacher Consultant 2001-Present
Midwest Writing Center Association—2008 Coordinator of the Kansas MWCA Consortium.
3006-2011 Board Member
International Writing Center Association—2007 & 2008 Annual Conference Presenter
Conference on College Composition and Communication—2008 & 2009 Annual Conference Presenter
National Council of Teachers of English—ALA Review Young Adult Literature Book Reviewer 2008-2009
National Service Learning Council (Past Member)

Professional Conferences Attended

Midwest Writing Center Association, Rapid City, SD—2009
A Room of Her Own Foundation Writing Retreat, Abiquiu, NM—2009
National Writing Project Professional Writing Retreat, Tubac, AZ—2009
K-State Ethical Reasoning Workshop, Manhattan, KS—2009
K-State Lecture Series Teach Me: I Dare You! Changing Student Attitudes—2009
Kansas Writing Project Grant Writing Retreat, Rock Springs Ranch—2009
National Writing Project Holocaust Educator Seminar, New York, NY—2008
European Writing Center Association Annual Conference, Pruhonice, Czech Republic—2008
College Conference on Composition and Communication, New Orleans, LA—2008
Midwest Writing Center Association, Kansas City, MO—2007
Kansas Association of Teachers of English, Wichita, KS—2007
International Writing Center Association Annual Conference, Houston, TX & Las Vegas, NV—2007 & 2008
KSU Annual Leadership Development Seminars—2005 & 2006
James R. Cofman Leadership Institute, Rock Springs Ranch, KS—2006
Conference on College Composition and Communication, Chicago, IL—2006
International Writing Center Association Annual Conference, Minneapolis, MN—2005
Welcome Conference on College Teaching, Mackay, ID—2005
International Writing Center Association Summer Institute, Lawrence, KS—2005
Conference on College Composition and Communication, San Francisco, CA—2005
National Council of Teachers of English Conference, Indianapolis, IN—2004
National Writing Project Annual Conference, Indianapolis, IN—2004
Kansas Association of Teachers of English Annual Convention, Wichita, KS—2003 & 2004
Flint Hills Writing Project Summer Institute, Manhattan, KS—2003 & 2004
National Service Learning Annual Conference, Minneapolis, MN—2003

Professional Publications and Presentations

* Ackerman, Patricia R. Under-Student Expectations in College Writing Center Tutorial Sessions. Midwest Writing Center Association Bi-Annual Conference. October 2009. Rapid City, SD.
* Ackerman, Patricia R. Providing College-Sound Students with an Alternative: Two Through Which to Examine Their Own Writing Abilities. Third Annual Voices In the Village Conference, Southern Arizona Writing Project. April 25, 2000. Tucson, AZ.
* Ackerman, Patricia R. and Alyssa Starkey. Navigating the High Road of Academic Integrity: International Writing Center Association Annual Conference, March 2009. Las Vegas, NV.
* Ackerman, Patricia B. and Alyssa Starkey. Navigating the High Road of Academic Integrity. Conference on College Composition and Communication, October 2008. San Francisco, CA.
* Ackerman, Patricia and Alycia Starkey. *Navigating the High Road of Academic Integrity,* Kansas Association of Teachers of English, October 2008, Wichita, KS.
* Ackerman, Patricia. *Necessary Writing,* Kansas Association of Teachers of English, Spring 2008.
* Ackerman, Patricia. *Influencing and Assessing Tutor Perspective Through Reflective Thinking,* European Writing Center Association Conference, June 2008, Potsdam, Germany.
* Ackerman, Patricia. *Influencing and Assessing Tutor Perspective Through Reflective Thinking,* Conference on College Composition and Communication, April 2008, New Orleans, LA.
* Ackerman, Patricia. *Thinking Aloud about Tutor Literature,* Kansas Association of Teachers of English Annual Conf., October 2007, Wichita, KS.
* Ackerman, Patricia. *Think-Aloud Protocols as Tutor Training & Assessment Methodology,* Midwest Writing Center Association Annual Conf., October 2007, Kansas City, MO.
* Ackerman, Patricia. *The Application of Think-Aloud Protocols to Assess Higher Order Learning Strategies Employed During Tutorial Discourse Over College Student Writing,* Diss. Kansas State University, 2007, Manhattan, KS.
* Ackerman, Patricia. *Think-Aloud Protocols as Tutor Training & Assessment Methodology,* International Writing Center Association Annual Conference, April 2007, Houston, TX.
* Ackerman, Patricia. *Socratic Dialogue as a Tool for Student Engagement,* KSU Salina Teach On Workshop, August 15, 2006, Salina, KS.
* Ackerman, Patricia, Brockway, Kathy, Spiscial, Jinny, Leite, Pedro. *Tapping into the Power of Community Classrooms,* Kansas State University at Salina Professional Day, January 6, 2005, Salina, KS.
* Ackerman, Patricia. *Service Learning in Writing Classrooms,* Flint Hills Writing Project Summer Institute, June 2005, Manhattan, KS.
* Ackerman, Patricia. *Service Learning in College Writing Classrooms,* Wacone Conference on College Teaching, 2005, Muskogee, MI.
* Ackerman, Patricia, Brockway, Kathy, Dandu, Raju, Leite, Pedro, and Spiscial, Jinny. *Tapping into the Power of Community Classrooms,* ASEE Midwest Section Conference, September 11, 2004, Potsdam, KS.
* Ackerman, Patricia, Bessley, Guy, and Greenbacher, Elaine. *Building Community Writing Classrooms Through the National Writing Project,* Kansas Association of Teachers of English Annual Conference, October 2003 and October 2004, Wichita, KS.
* Ackerman, Patricia. *Service Learning in Writing Classrooms,* Kansas Service Learning Symposium, February 28, 2003, Barton County Community College, Great Bend, KS.
* Ackerman, Patricia. *Service Learning in Writing Classrooms,* Fall English Teachers Workshop, Fort Hays State University, September 2001, Hays, KS.

* Peer Reviewed Invitations*
R. Kurt Barnhart, Ph.D.
Curriculum Vitae

10536 E. Magnolia Rd.
Gypsum KS, 67448
(785) 536-4489 Home  (785) 826-2972 Work  Email: kurtb@ksu.edu
Professor and Aviation Department Head, Kansas State University

EDUCATION

**Ph.D. in Educational Administration**, December, 2002
Indiana State University, Terre Haute, IN

**Master of Business Administration in Aviation**, December 1994,
Embry-Riddle Aeronautical University, Daytona Beach FL (Resident course)

**Bachelor of Science, Aviation Administration** (emphasis in flight and maintenance mgmt.), May 1991, Purdue University, West Lafayette, IN

**Associate of Science, Aviation Maintenance Technology**, Cum Laude, May 1989, Vincennes University, Vincennes, IN

I. Recent Teaching

A. Scheduled and arranged classes taught*

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Prefix and Number</th>
<th>Credit Hours</th>
<th>Semester or Session</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Aviation Operations (Covers: the GA industry and role in the transportation system as well as business principles of FBO management).</td>
<td>AST 205</td>
<td>3.0</td>
<td>FALL 2006</td>
<td>36</td>
</tr>
<tr>
<td>Beechcrft King Air 200/B200 Flight (Flight Simulation Course, leading to the High Altitude Endorsement)</td>
<td>AST 315</td>
<td>3.0</td>
<td>FALL 2006</td>
<td>6</td>
</tr>
<tr>
<td>Aviation Risk Analysis (Aviation Safety course covering accident investigation/prevention)</td>
<td>AST 425</td>
<td>3.0</td>
<td>FALL 2006</td>
<td>28</td>
</tr>
<tr>
<td>General Aviation Operations</td>
<td>AST 205</td>
<td>3.0</td>
<td>SPRING 2006</td>
<td>42</td>
</tr>
<tr>
<td>General Aviation Operations</td>
<td>AST 205-301</td>
<td>3.0</td>
<td>SPRING 2006</td>
<td>2</td>
</tr>
<tr>
<td>Beechcrft King Air 200/B200 Flight</td>
<td>AST 315</td>
<td>3.0</td>
<td>SPRING 2006</td>
<td>20</td>
</tr>
</tbody>
</table>
Aviation Risk Analysis | AST 425 | 3.0 | SPRING 2006 | 34

*Other courses taught include: Cessna Citation Ground School (CE 550/1), Aircraft Systems I, Instrument/Commercial Theory, Private Pilot Theory (Aviation Fundamentals), Aviation Topics (undergraduate and graduate), Advanced Navigation, Air Transportation (Airline Operations).

B. Independent study enrollments completed (including course name, prefix, and number; number of students; and date of course completion for each item).

C. Dissertation, professional research project, Educational Specialist, thesis, and master's examination committees served on or chaired (including name of student, name of degree, position on committee, and dates of committee formation and final document approval for each item)

   Ph.D. Dissertation Committee Member, CURRICULUM INSTRCTN AND MEDIA TECH, Title: Assessment the need for airport board member training in Indiana, Proposal. (January 10, 2006 - Present). Advised R. Troy Allen through to completion

D. Academic Advising

   Advised 50 Undergraduate students during the 2005-2006 academic year.

   Advised 59 Undergraduate students during the 2004-2005 academic year.

E. Courses developed (including course name, prefix, and number and date of university approval for each item)

   AST 425- Aviation Risk Analysis, January 1997
   AST 205- 301, General Aviation Operations- distance education course, May 1999
   AST 211- Aircraft Systems I- independent study course, June 1997

II. Research, Scholarship, and Other Creative Activity

A. Articles published (including complete bibliographic information--author(s) in published order, title, journal, volume, issue number, month, year, and pages--and a synopsis of 20 words or less for each item)

   Promoting UAS in general aviation

   Article introducing pilots to the future of UAS in the NAS.

   Published results of survey regarding how to get more young people involved in aviation.

   Cold Weather Problems. Flying Magazine, December 2005
   Narrative of an incident while flying

   Application of the Kirton Adaption - Innovation Theory of Cognitive Style to the flight instruction environment of higher education

Results of an interview with bush pilot operators and what lessons can be learned for all operators of light aircraft.


Study applying the KAI theory of Cognitive Style to an Aviation setting

Allen, R., & Barnhart, R. Influencing Factors in Degree Selection for Aviation Majors at Indiana State University. *Journal of Aviation/Aerospace Education & Research.*

Reporting the results of surveys of ISU students regarding why they chose to major in aviation. published Spring edition, 2006.

Barnhart, Richard K., An Exploration into the Benefits and Costs Associated with the Implementation of an In-House Parts Acquisition Facility By the Embry-Riddle Aeronautical Univeristy Engine Repair Station.

Graduate Research Project (1994) which was implemented by ERAU resulting in over $50,000 in cost savings to the University each year- over $500,000 saved to date.

B. Electronic media materials published (e.g., CD-ROMs, Internet; include author(s) in published order, URL/URN; title, place of publication, publisher, date of publication, and a description of 20 words or less for each item).


*Gleim’s Online Inspection Authorization Renewal Course (IARC)* - Developed first ever online renewal option for aircraft mechanics to renew their inspection authorization. This project positively affected thousands of mechanics around the country.

C. Conference presentations made (not already listed under section III, letter E; including presenter(s) in published order, title of presentation, organization, location, and date for each item)


A presentation given to the 11th annual TAAC UAS conference- the largest conference of it’s kind in North America.


A presentation to the 4th Kansas UAV Symposium on strategy to integrate Unmanned Aerial Systems into the National Airspace System.


A presentation to the 2009 Unmanned Aerial Systems Summit on Kansas’ UAS NAS integration plan.

Barnhart, R. Kurt, “Non-Verbal communication in the cockpit- implications of team transfer research”, Wichita KS. (October 2007).

Major presentation to 500 corporate pilots where flight departments from 84 of the top fortune 500 companies were represented. Presentation dealt with helping pilots set a positive cockpit
climate especially when they are faced with an inexperienced copilot in this age of high pilot demand. Other featured speakers included Astronaut Gene Cernan (the last man on the moon), other internationally renown speakers- Bob Hoover was in attendance.

Barnhart, R., & Allen, R., "Influencing Factors in Degree Selection for Aviation Majors at Indiana State University", Champaign IL. (September 30, 2005).
Results of survey research into what the influencing factors were in students who chose to major in aviation at Indiana State University

Barnhart, R., "Aiding Classroom Delivery with Guest Speakers at a Distance", Champaign IL. (September 29, 2005).
Using conference telephone technology to bring experts into the classroom

Barnhart, R., "Theory of Adaption-Innovation in flight training", UAA, Dayton OH. (October 24, 2003). Presentation demonstrating the KAI theory of cognitive style in the aviation flight instruction environment. First-ever known aviation application for this theory.

Concepts of designing the measurement of cognitive style in learning

How the COT plans to Use Kirton-Adaptive- Innovative Theory (KAI)

D. Books and journals edited and/or reviewed

Reviewer

Reviewer

Reviewer

Reviewer

E. Reviews published (including complete bibliographic information--author(s) in published order, title, journal, volume, issue number, date, and pages--and title(s) or description of work(s) reviewed for each item)

Summarized a book relating a new concept in the mindset of aviation safety

F. Other contributions to published works (including complete bibliographic information as indicated above and a brief description of the contribution for each item)


A call to more closely examine cheating in term papers for undergraduate courses


Summary of Aviation training and education


Summary of Emergency Procedures in Aviation


Summary of what flight plans are and what they are used for


Article on ISU's new King Air Simulator

G. Research, scholarship, or creativity awards received (including title of award, sponsor, and date for each item).

Dr. Bill Melvin Award for Scholarship Excellence in Educational Administration, ISU, 2001

J. Fred Swalls Award in Educational Administration, ISU, 2001

H. Extramural grants and contracts awarded (including project director(s), other project participants, project title, amount of award, sponsoring agency, date of award, and a statement of purpose of project in 20 words or less for each item)

Principal Investigator- Wolf Aviation Fund, Spring 2006- Grant to investigate establishing an Indiana Youth Aviation Association- $1,500.00

Principal Investigator- SEDIC Grant for Establishing UAS Program Office, Salina KS, May 2008- $100,000

Principal Investigator- Flint Hills Solutions Grant to Begin Phase one of UAS Program- $50,000

Principal Investigator- Air Force Office of Scientific Research, 2008- Federal Grant to begin Unmanned Aerial Systems Laboratory- $400,000

Principal Investigator- DOD Appropriation for UAS TEC at Salina KS- $800,000

I. Extramural grant and contract proposals submitted (including project director(s), project title, receiving
Flight Instructor Institute- March 1998, Proposal before the U.S. House Committee on Transportation & Infrastructure- not funded.

J. Intramural grants awarded (including project director(s), project title, amount of award, and sponsor for each item)

Barnhart, R. Kurt, “ISU Distinctive Programs Grant” Grant resulted in a $100,000 award and in the department being named as one of 2 programs in the College as “Regionally Distinctive”

Barnhart, R., $500 CTL development grant for AST 425, ISU.
Date Awarded: January 2003

K. Research in progress (indicate start date, nature of research, purpose/goal (e.g., publication, departmental improvements); targeted completion date)

Barnhart, R. Kurt, Fall 2008, working on a project to launch an Unmanned Aerial Systems Journal. At K-State.

III. Professional Service

On Campus:

A. Organizational offices held (including title of office, professional organization, and dates of service for each item)

Indiana State University, Officer, College of Technology Faculty Council. (September 01, 2005 - May 01, 2006).
Responsibilities: Secretary 2005/2006

Indiana State University, College of Technology Promotion & Tenure Committee. (Sept. 01, 2006 – Present).
Responsibilities: Committee Chair

B. Committee memberships and offices held (including name of committee, professional organization, office, and dates of service for each item)

Indiana State University, Officer, College of Technology Faculty Affairs Committee. (September 01, 2004 - May 01, 2006).

Indiana State University, Member, University Graduate Student Appeals Committee. (Fall 2005 – present).

Indiana State University, Member, College of Technology Promotion & Tenure Committee (School year 2006 -7)

C. Special organizational responsibilities performed, such as contributing, managing, or section editorships or juror duties in a competition (including nature of responsibility, professional organization, and dates of service for each item)

College of Technology “Discover ISU” Department coordinator, Program to introduce Middle School Students to Careers in Technology. Fall 2006.

Department coordinator for “Tech Trek,” program to introduce High School Students to Indiana State University. Coordinator from 1996 - 2003
D. Professional service awards received (including title of award, sponsor, date, and a brief explanation of the basis of the award for each item)

**National Association of Flight Instructors- Master Instructor Award, 2003 - Present**

Off Campus:

E. Governing body memberships and offices held (including name of body, office, and dates of service for each item)

**National:** Board of Trustee Member- University Aviation Association- Elected to three year term beginning fall of 2008.

**Regional:** Kansas UAS Consortium Chair- Panel made up of members from Kansas industry, academia, and the military to promote Unmanned Aerial Systems in Kansas and beyond.

**Regional:** President/Elect/Past, Sullivan County Board of Aviation Commissioners. (August 01, 2002 - Present).

- Responsibilities: Chair public meetings, assist with grant administration and oversight of airport. Provided oversight of $1.1 million runway/taxiway/ramp rehabilitation project during 2005. Oversee operating budget.
- Comments: appointee

**National:** Officer, University Aviation Association Distance Learning Committee Chair. (October 01, 2005 - October 01, 2006).

- Responsibilities: Organize and oversee the activities of the UAA Distance Learning Committee
- Comments: Committee Chair

F. Special responsibilities performed, such as administrative assignments (including title or nature of responsibility and dates of service for each item)

**Fall 2006, Department Assignment-** assisted with investigation of department acquiring its own flight school.

**Fall 2006, Department Assignment-** Administered the change of department’s name from “Department of Aerospace Technology” to “Department of Aviation Technology”.

G. Student organizations sponsored (including name of organization and dates of service for each item)

**Indiana State University, Flying Sycamores. (December 05, 2004 - May 01, 2005).**

- Comments: Advisor for Flying Sycamores until May 2005

H. Other Professional Service

- Consulting Editor for the Journal of Air Transportation, and the International Journal of Applied Aviation Studies

**Indiana State University, Member, College of Graduate Studies appeals Committee. (October 01, 2005 - Present).**

- Responsibilities: meet to review appeals from graduate students
- Comments: current term expires May 2007

**Indiana State University, Member, College of Technology Library Committee. (January 31, 2005**
Indiana State University, Member, Speaker Series Committee. (September 01, 2004 - December 01, 2004).

Comments: Apollo 13 Astronaut Jim Lovell

I. Consulting


IV. Professional Development

A. For-credit courses and degree programs completed (including course or degree name, credit hours, institution, and date of completion for each item)

Cessna Citation Co-pilot training

King Air B200 PIC training Spring of 1998, Flight Safety International

Certified Flight Instructor Rating (CFII-MEI), Glider/Seaplane Pilot- Certificates continually maintained since the spring of 1990

B. Seminars, workshops, and teleconferences attended (including title, sponsor, location, and dates for each item)

Seeking Funding, Finding Success, Office of Sponsored Programs, ISU. (January 05, 2004 - January 07, 2004).
Initial grant-writing workshop

C. Conferences attended but not mentioned elsewhere in this report (including organization, location, and dates for each item)

Aerospace Industry Advisory Board, Department of Aerospace Technology, College of Technology ATC. (April 30, 2004 - Present).
Re-convened the AST advisory board with good results

Inspection Authorization Renewal, Federal Aviation Administration, Springfield IL. (February 25, 1999 - Present).
Review of Federal Aviation Regulations

FAA Flight Instructor (CFII-MEI)- Continuous Renewal from 1990 to present.
Jung Oh CV 2009

Oh, Jung Ran

Department of Arts, Sciences, and Business
Kansas State University at Salina
2310 Centennial Road, Salina Kansas 67401-6168
Tel: 785.828.2915
Fax: 785.826.2677
e-mail: joh@ksu.edu

Education
Ph.D. October 1989 University of California, Los Angeles
B.S. February 1981 Sogang University, Seoul, Korea, Cum Laude

Professional Experience
Professor of Chemistry, Kansas State University at Salina, Salina, KS (1998-present)
1996-2004, Assistant Prof.; 2004-08, Associate Prof.; 2009-Present, Professor, Graduate Faculty
Teach introductory chemistry, general chemistry, inorganic chemistry, and graduate level organic chemistry courses with
associated laboratories; work on interdisciplinary teaching and learning projects including collaborations with
library and writing centers (e.g. "Peer Review of Teaching", "Information Fluency", "Writing Across
Curriculum"); and serve on various professional society, university, and community committees.

Visiting Assistant Professor: Claremont McKenna, Pitzer, Scripps Colleges, CA (1997-1998)
Teach general chemistry courses and serve as a seminar tutor for the B.A. degree.

Fixed Term Assistant Professor, Minnesota State University at Mankato, MN (1994-1997)
Teach introductory chemistry, general chemistry, advanced organic chemistry, and graduate
level inorganic preparations courses with associated laboratories; directed undergraduate research and serve
as a panelist for "Introduction to Research" course; earned on University cultural diversity liaison.

American Society for Engineering Education Postdoctoral Research Fellow
Naval Air Warfare Weapons Center, China Lake, CA (1992-1994)
Research on organometallic/transition metal chemistry focusing on synthesis of precursors for
chemical vapor deposition of semiconductors.

Postdoctoral Research Associate, Ohio State University, Columbus, OH (1989-1993)
Research in metal cluster and metallobiorganic chemistry

Honors, Awards, and Certificates (selected)
2010 Department of Defense (DoD) Science, Mathematics, and Research for Transformation
(SMART) Scholarship for Service program, Review Panelist, Washington D.C., January 20-30
2008 Research Site for Educators in Chemistry (RSEC), visiting faculty fellow
2008 Summer fellowship sponsored by NSF and hosted by Wichita State University
2006 Rex and Jean McArthur Fellowship Award at Kansas State University at Salina
2006 Certificate of Kansas State University James Coffman Leadership Institute participation
2006 PEP Review of Teaching" faculty fellow at Kansas State University
2005 Big XII Fellowship Award, University of Kansas as host institution
2005-2007 4th, 5th, 6th Global Colloquium on Engineering Education presentations, invited by American
Society for Engineering Education, ASEE, to present ASEE national conference presentations
2004 Williams Teaching Fellow, selected as one of six Kansas State University contingent
2003 NSF summer Chemical Sciences workshop, "Environmental Chemistry" Atlanta, GA June 1-8
1996, 2000 Certificates for Faculty participants in Plains Academy Co-Op FIPSE projects for curriculum
revision and technology enhancement

Scholarship and Creative Endeavors

Selected publications
  University faculty and librarians are tracing parallel paths with languages, research, and information
  literacy skills: a model for your school," Kansas Association of Teachers of English (KATE) Updates, 2007,
  Vol. 25, No. 2 P4-5 (controlling paper)

Invited presentations (some with proceedings)
- Oh, J.; Kissick, B.; Starkey, A. "Fostering Students to be Lifelong Learners with Science Literacy,
  Information Literacy, and Communication Skills." SC 2007-246, 8th Global Colloquium on Engineering
  Education, Istanbul, Turkey, October 1-4, 2007 (presentation with proceeding)
Selected Presentations (some with proceeding publications):


Grant related activities:

- Big XII Faculty Fellowship, hosted by University of Kansas, "The Courage to Collaborate Defining and Implementing Information Literacy Across Curricula," $2,043 funded (2005-06); submitted DVD report.

- Served as transfer Co-PI for institution grant for NSF I/UC (CIL), "Development of a Spectroscopy Laboratory," $56,000 funded for originally for 1007-1008 (1008-2009).

Professional Services (selected):


- Kansas State University and College Committees, Task Forces, Public Outreach Services:
  - President’s Commission on the Status of Women, Provost Advisory Committee for the President’s Awards for Excellence in Undergraduate Teaching, Grievance Board, Honor/Integrity Council, Early Adopters of Assessment, Environmental Stewardship, ELITE scholarship (NSF S-STEM grant) review committee, Assessment Review Committee, Environmental Health/Safety Committee (chair), Task Force for Professional Master in Technology Graduate Program, Committee for Teen Women in Science and Technology (TWIST), Judge for annual Western Kansas Regional Science Olympiad.
EDUCATION:  Ph. D. Electrical Engineering, University of Connecticut, December 1994
Dissertation Title: The propagation and scattering of EM waves in electrically large ducts

M.S. Electrical Engineering, University of Connecticut, May 1989
Dissertation Title: Techniques for the determination of transfer function in extruded dielectric power cables

B.S. Electrical and Electronic Engineering, Bangladesh University of Engineering and Technology, December 1984

TEACHING EXPERIENCE:
1997-present  Associate Professor, Electronic and Computer Engineering Technology, Kansas State University-Salina, KS

1994-1997  Adjunct Faculty Electrical Engineering and Lecturer Mathematics, Kansas State University, Manhattan, KS
Taught Electromagnetics and Calculus.

RESEARCH EXPERIENCE:
• Antenna Design (1998-present): Have designed various GPS and commercial wireless Antennas while in industry and this is an active area of research.

• Electromagnetic Scattering (1989-present): Have performed scattering studies on electrically large complex objects using analytical and numerical techniques. Developed a hybrid technique combining finite difference, and modal techniques to study large cavity backscatter. Worked on a novel ray-tracing scheme that uses fuzzy factors to enhance a conventional geometrical optics aperture integration (GO-AI) ray-tracing scheme.

• Novel Materials (1995-2002): Collaborated with team developing polymer materials for microwave applications by providing expertise on desirable material properties for a given application.

INDUSTRY EXPERIENCE:
Summers  Consultant/Senior Design Engineer, Aeroantenna Technology Inc., Chatsworth, CA
1998-2005  • Designed various patches, quadrifilars, dipoles and blade antennas for GPS and wireless applications.
• Performed research related to issues involving phase center variations and multipath effects on high precision GPS antennas.
• Played key role in establishing the use 3D EM solvers for antenna design purposes at Aeroantenna.

INDUSTRY EXPERIENCE (Contd.):
1985-1987  Research Associate, Institute of Materials Science (IMS), University of Connecticut, Storrs, CT 06268
• Developed a high frequency transfer function for the propagation of partial discharges in underground power cables.
Developed scheme for locating discharge sites using high frequency transfer function

SYNERGISTIC ACTIVITIES:
• Chairing Task Force for establishing a Master’s of Science in Technology for Kansas State University’s College of Aviation and Technology
• Serving as co-chair for technical session on “Mobile Antennas, RF and Wireless Communication” at the 2008 Progress in Electromagnetic Research Symposium to be held in Cambridge, Ma
• Helped establish articulation agreements with several community colleges in the State of Kansas.
• Developed assessment scheme for electronic and computer engineering program for ABET accreditation purposes.
• Participated in Task Force that created new university-wide criteria for the Honor’s Program.

AWARDS:
• 1st Place Paper Award, Conference Proceedings of 42nd American Society for Engineering Education (ASEE) Midwest Section Annual Conference, Wichita Kansas, September 19-21, 2007
• 2nd Place Paper Award, Conference Proceedings of 41st American Society for Engineering Education (ASEE) Midwest Section Annual Conference, Kansas City, Missouri, September 13-15, 2006

PUBLICATIONS/PAPERS:


PUBLICATIONS/PAPERS (Continued):


7. Saeed M. Khan and Beverlee Kissick, “Linking International Competition, Innovation, Cultural Understanding and global thinking: Motivating


PUBLICATIONS/PAPERS:


16. Beverlee Kissick and Saeed Khan, “Expectations: Leadership, Dialogue and a Long-Term Commitment to diversity promotion,” Conference Proceeding of the 38th ASEE Midwest Section Meeting, Sept. 10-12, Rolla, MO, 9 pages


21. Saeed M. Khan, "Teaching the Time Frequency Relationship to Electronic Engineering Students." Conference Proceedings of Mid-West Regional Conference of the ASEE, Omaha, Nebraska, April, 2000

22. Shailendra Negi, Keith Gordon, Saeed M. Khan, and Ishrat M. Khan, "High Dielectric Constant (Microwave Frequencies) Polymer Composites," book chapter from Field Responsive Polymers, ACS Symposium Series 726, American Chemical Society, 1999

23. Saeed M. Khan, Shailendra Negi and Ishrat M. Khan, "Microwave Active Smart Polymers," cover feature article, POLYMER NEWS, Vol. 22 No. 12, December 1997
Richard Andrew Zajac, Ph.D.

Department of Arts, Sciences and Business

Kansas State University at Salina

EMPLOYMENT HISTORY

August 1996 – Present

Assistant / Associate Professor

Department of Arts, Sciences and Business

Kansas State University at Salina

Taught college level physics to over 2000 students, average of 13 credit hours per semester. Successfully managed the development and integration of computer-based physics lab and more than $80,000 of experimental equipment. Developed computer methods of data acquisition simulation and visualization, using technology tools in an interactive learning environment.

* Developed innovative pedagogical materials that led to the publication of textbook / lab curriculum nationwide, as well as several papers presented to national audiences.

* Taught following classes, and wrote supporting materials for:
  o General Physics I, algebra-trigonometry based lecture and lab
  o General Physics II, algebra-trigonometry based lecture and lab
    (Salina campus and Manhattan campus)
  o PHYS 101: Conceptual-based physics
    (Salina campus and Manhattan campus)
  o PHYS 103: Concept-based physics lab
  o Adapted JAVA applets for online animations. Received tenure in May 2002.

August 1992 – August 1996

Graduate Teaching / Research Assistant

Department of Physics
Kansas State University

Developed and programmed original simulations of complex fluids of polymers, copolymers, polyelectrolytes and protein models, using dynamical Monte Carlo lattice models, molecular dynamics and self-consistent field iterative algorithms. Developed and programmed original FORTRAN and BASIC simulations of complex fluids of polymers, copolymers, polyelectrolytes and protein models, using dynamical Monte Carlo lattice models, molecular dynamics and self-consistent field iterative algorithms.

* First study to directly reveal existence of self-similar adsorbance structures;

* Detailed bimodal population of molecular exchange at adsorbing surfaces;

* Unprecedented results of analysis of the structure and dynamics of layer adsorption resulted in 7 major publications in prominent journals, with impacts to pharmaceuticals, petroleum applications, and the biocompatibility of implants;

* Taught undergraduate physics laboratories.

CAREER OVERVIEW:

Over 15 years experience teaching college level physics. An experienced teacher and researcher with proven hands-on skills to develop, manage and maintain a state-of-the-art computer-based physics lab, and design quality research-based pedagogical materials. Proven research experience in designing, programming, coordinating and analyzing innovative computer simulations of complex physical systems.

EDUCATION

Ph.D. in Physics conferred May 1997,
Kansas State University, Manhattan, Kansas

B.Sc. in Physics conferred June 1992,
McGill University, Montreal, Quebec, Canada.

SKILLS
Programming: Fortran, Basic, Some experience in Java
Platforms and Apps: Unix, Windows, Excel, Word, Power Point, Science Workshop,
                             Data Studio, Interactive Physics, PEARLS, VideoPoint, Physlets.
Expertise: Teaching w/ Interactive Technology lab, Curricular Development and Analysis.

AFFILIATIONS
American Physical Society, American Association of Physics Teachers.

SELECTED SCHOLARLY PUBLICATIONS & PRESENTATIONS


SCHOLARLY PUBLICATIONS & PRESENTATIONS (continued)


Textbook Effectiveness: $100 Paperweights, or How to Read a Book”, National Meeting of the American Association of Physics Teachers, Session BM03, Salt Lake City, Utah, August 8th, 2005.

While this paper was still under development, preliminary results were presented at:

“A Use for the 100$ Paperweight, or How to Read a Book”, K-State at Salina 1st Annual Professional Day, January 5th, 2005.


DON VON BERGEN  
Arts, Sciences, and Business Department  
dvb@sal.ksu.edu, 785-826-2696

Education:

B.S.  1977  Wheaton College, Geology  
M.S.  1985  University of Illinois, Geology  
Ph.D.  1988  University of Illinois, Geology

Professional experience:

Current:  2001 - present  Department Head, Arts, Sciences, and Business  
Department, Kansas State University, Salina

Previous:  1994 - 1997  Instructor, Physics/Geology, Arts, Sciences, and Business  
Department, Kansas State University, Salina

Orleans/Lafayette, Louisiana

1981 – 1988  Teaching/Research Assistant, University of Illinois,  
Urbana, Illinois

Selected Refereed Journal Articles/Publications/Significant Works of Scholarly Activity:

Hurt”: The Department Chair, vol. 17, No. 2

Hurt”: Presentation & Proceedings, 23rd Annual Academic Chairpersons Conference

Von Bergen, D. and A. V. Carozzi, April, 1990. Experimentally simulated stylolitic porosity in  
carbonate rocks: Journal of Petroleum Geology.

Von Bergen, D. and A. V. Carozzi. Deep burial stylolitic porosity experimentally developed in  
Atokan limestones, Northern Delaware Basin, Chapman Deep Field, Reeves County, Texas:  
1987 SEPM Annual Midyear Meeting, Austin, Texas.

stylolitic porosity of Atokan (Pennsylvanian) carbonate gas reservoirs, Chapman Deep Field,  
Delaware Basin, Reeves County, Texas: Journal of Petroleum Geology.
March 3, 2010

Kenneth W. Barnard, EdD

962 300 Ave
Hope, KS  67451
(785) 949-2857

Professor, College of Technology & Aviation
Kansas State University-Salina
2310 Centennial, Salina, KS  67401
(785) 826-2681  Fax 826-2934

EMPLOYMENT:

2010

Kansas State University-Salina
- Co-PI $3,147 Tilford grant; Infusing and Assessing the Tilford Multicultural Competencies in the Academic Curricula at Kansas State University
- Awarded $1,900 grant University Distinguished Lecture, Dennis M. Bushnell, Chief Scientist, NASA Langley Research Center, “Eight Major Societal Trends in Our Future”.
- Lead writer for CARE grant Phase I on water conservation adopted for Phase II grant proposal

2009

- Principal Investigator $125,510 subcontract of $1,510,255 NASA EPSCoR grant (3 years); Aerelastic Modeling Effects and Flight Test Demonstration of Resilient Adaptive Flight Controls on a General Aviation, Textbed: Dynamic Inverse and Adaptive Critic Methods (2009)
- Invited presenter at the Ethical Reasoning Workshop at KSU
- Invited to present and help organize the Coronado Area Council Boy Scouts of America 2009 Eco-Camp Adventure Days.
- Meteorology consultant for Symphony in the Flint Hills event

2008

- Awarded a $3835 DCE grant to develop and offer PPIL342 Aviation Meteorology as an online delivered course.
- Graduate Council approved membership to Graduate Faculty at KSU. (2008)
- Graduate Committee member to establish a Masters in Technology at K-State at Salina
- Mentor to Aviation Faculty for tenure and promotion process.
- Invited by faculty to peer review their classroom teaching.
- Invited leader in the Take Charge Challenge project; a Salina energy savings public service project.
- Involved in the U.S. Environmental Protection Agency Awards CARE Grant to Investigate Environmental Health Issues in Salina, Kansas.
- Invited speaker to present: WSI what You should Know (workshop on how to use the satellite weather service international live feed for pilot weather briefings and forecasts) at the EAA sponsored regional meeting. (2008)
- Received the 2008 Academic Advisor of the Year award from K-State Salina (advise 77 students with a full teaching load)
- Accepted presentation Trials & Tribulations using 5 Technologies at the Colleague to Colleague (C2C), Summer Institute on Distance Learning and Instructional
Technology (SIDLIIT) held at Johnson County Community College July 31, 2008.

- Experimental Aircraft Association 2008 awarded the certificate of Flight Advisor, one of only a few hundred holding this distinction worldwide, six in Kansas.
- Nominated University Aviation Association president by former president (2008).
- Elected to the board of directors; Marion County water district #1 (2008)
- Invited reviewer by the International Review Board for International Association of Journals and Conferences, accepted April 2008.
- Reviewer for Collegiate Aviation Review (CAR), average three papers each year, two papers reviewed thus far in 2008.
- Invited presenter at the Iped and Beyond collegiate regional forum hosted by University of Kansas April 18, 2008.
- Presented several lectures from Kansas State University's Presidential Lecture Series; Climate Change are You Ready?, Save R-PLANET, Reduce Carbon Dioxide and Save Money.

2007

- Reviewer for ASEE conference papers; three papers reviewed 2007.
- Principal organizer first College of Technology's Earth Day Teach-In. Earth Day Teach-In: A Model for Industry, Community, and Education Collaboration paper was published and collaboratively presented at the regional ASEE conference, Wichita, KS, October 2007.
- Selected as one of the 1,000 trained world wide as a climate change presenter at the Al Gore's Climate Project Center with Intergovernmental Panel on Climate Change scientists participating, January 2007.

- Twenty-five invited presentations across the state on climate change in 2007 to include the regional Wing Conference for the Civil Air Patrol in Kansas; Climate Change Are You Ready? Workshop at the Kansas Association of Teachers of Science and at the Kansas Association of Conservation and Environmental Education Conferences.
- Invited by four campus professors to provide peer teaching feedback evaluations on their classroom teaching (2004, 2007, 2008)
- Principal organizer first Earth Day Teach-In at K-State at Salina (2007)
- Invited presenter EAA chapter 1127, FAA Airspace Communications (2007)
- Selected as one of only 1,000 worldwide to receive personal training by Al Gore at The Climate Project Center, Nashville TN, to include three days of training with scientists from the intergovernmental Panel on Climate Change. (January 2007)

2006

- Received The William Weasley Award for Teaching Excellence and making outstanding contributions to aviation education for over ten years by The University Aviation Association, presented at the annual national conference, Anchorage, Alaska, October, 2006.
• Published and presented paper, *Broad based student learning outcomes: An Assumed Assessment Reality Check Experience in Aviation* (KSU and UAA 2006)
• National EAA Young Eagle program recognition; 100 plus Young Eagle Flight Award (2006)

2005 – 2000

**Kansas State University-Salina**

• Appointed Adjunct Faculty at Tuskegee University, AL (2003)
• Selected for the Peer Review program at K-State with $1,000 grant
• Invited panel participant on *WebCT Distance Learning Course Delivery* at the SIDLIT conference hosted by JCCC, KS (2003)
• Nominated for the Coffman Chair for University Distinguished Teaching Scholar (2004)
• One of three PI’s submitting a multi-discipline Target of Excellence proposal grant in 2005 involving Aircraft Cabin Air Filtration research, $624,000 initial awarded (2008) of $1.2 Million project.
• Consultant, external reviewer for other university aviation programs (2004)
• Aviation consultant; city of Wichita, KS (2003)
• Nominated for University Aviation Association president by current president (2003); I had full departmental head support but the Dean emphatically did not support this national position so I withdrew my nomination.
• Retired U.S. Army Jan 2003, 35 years service Lieutenant Colonel (see mil bio)

• Selected as the first KSU Wakanse fellow recognized for *Innovative Teaching*, national conference held in Michigan (2002)
• Elected to the University Aviation Association Board of Trustee (2002)
• Received the Marchbanks Memorial Award for Teaching Excellence (2001)
• Awarded a University Small Research Grant for Spring 2001
• Participant in the 2001 Plains Academy grant project using digital learning
• Co-authored, *Web Enhanced Courses and Online Assessment: Student Perspectives*, presented at the 2001 Conference on Information Technology

1999 - 1992

**Kansas State University-Salina**

• Developed four courses using KSU Online (distance learning) Internet format
• Point of Contact (POC) for distance learning in the Kansas Army National Guard
• Ed.D in Higher Education with applied studies in Aviation and Space (1998)
• Sabbatical leave from KSU to Oklahoma State University (1997)
• Tenured Professor and Department Head for Aeronautical Technology
• Principal Investigator for a 7.7 million dollar DOD equipment grant
- Developed a new Bachelor of Science degree program: Airway Science in Professional Pilot and Aviation Management.
- In 1995 additional contracts were signed to support NASA atmosphere research (U2 aircraft/terrain used the hangar facilities and classroom space).
- Contracts were signed with McDonnell Douglas Training Systems to provide international pilot and A&P mechanic training (FAA and DCA) and with British Aerospace Prestwick Flying College to provide UK Civil Aviation Authority pilot training.
- Aviation Simulation Technology agreement; E-pron development and flight simulator use.
- Established a training agreement with McDonnell Douglas and Malaysia to provide instructor training, curriculum and subject matter expertise for a $70 M aeronautical training center in Malaysia (was cancelled by exiting Dean).
- Received the Kansas Governor's Aviation Honor Award from Governor Bill Graves.
- Directly supervised 31 faculty and staff, fleet of 60 aircraft.

1991 - 1990

Program Manager-Salina, Air Service Training (UK-CAA airline pilot training company)
- Professor, Program Manager, Air Service Training Contract.
- Responsible for managing an international pilot training contract providing Civil Aviation Authority and Federal Aviation Administration training.
- The duties were all encompassing to include all hiring (staff of ten), budgeting, accounting, purchasing, and liaison with AST, KCT, the CAA and FAA. Operations, safety, standardization, ground and flight curriculums were under my direct control.
- Managing auxiliary contacts in the areas of aircraft fleet use, student housing, transportation, and food service were also my responsibility.

1989 - 1986

Kansas College of Technology
- Professor, Director of Aviation. Responsible for managing two departments: Aviation Maintenance and Professional Flight.
- Responsible for curriculum design, degree proposals, new programs (Professional Flight was designed, proposed, and implemented in 1986-87).
- Budgets, purchasing, evaluations, providing guidance and direction for the programs, hiring of new instructors, implementing special projects, i.e. A & P review classes, Boeing 737 course, Avionics Repair Station, etc.
- Rewrote the FAA Part 147 document. Help write a new FAA FAR Part 141 Pilot training document. Taught in both the FAA approved Part 147 (A&P) and Part 141 (Pilot) curriculums.
- Assistant Chief Flying Instructor for the FAR 141 approved flight school.

1977 - 1985

Kansas Technical Institute
- Assistant/Associate Professor, Aviation Maintenance Department Head. Responsible for the A & P certificate and Associate degree programs in Aviation maintenance. Taught most of the twenty-four classes in the A & P curriculum. Responsible for budgets, purchasing, new hiring, and curriculums.
Kansas Technical Institute
- Instructor in the A & P curriculum

Self employed
- A & P mechanic, helicopter pilot, CFI Airplanes in Kansas while obtaining BS degree from KSU.

Student
- Student at KTI (A & P cert, AT degree), Pilot in KSARNG, CFI airplane.

Rocky Mountain Helicopter
- Helicopter pilot for Rocky Mountain Helicopters. Flew in Montana plus five states on US Forestry Fire contract.

US Army
- Helicopter pilot, Aviation Battalion Commander (see military biography)

DN:
(See military biography for additional military schools.)


Master of Science in Technical Teacher Education from Pittsburgh State University.

Bachelor of Science in Adult and Higher Education from Kansas State University

A & P Certificate, Associate of Technology, Aviation Maintenance from KTI.

Associate Arts degree in Liberal Arts from Riverside City College in California.

COURSES TAUGHT:

1. AVM 112 Aircraft Welding
2. AVM 121 Aircraft Drawings
3. AVM 131 Aircraft Maintenance Fundamentals
4. AVM 131 Aircraft Standards
5. AVM 141 Aircraft Science
6. AVM 142 Airframe Systems
7. AVM 151 Aviation Maintenance Fundamentals, was MATH 100 Elementary Functions
8. AVM 242 Navigation Aids and Communication Systems
9. AVM 290 Problems in Aviation
10. AVM 312 Aircraft Propellers
11. AVM 332 Gas Turbine Powerplant
12. AVM 342 Powerplant Induction and Fuel Systems
13. AVM 351 Powerplant Ignition and Electrical Systems
14. PPIL 111 Private Pilot
15. PPIL 112 Professional Instrument Pilot
16. PPIL 211 Preventive Maintenance
17. PPIL 212 Helicopter Pilot
18. PPIL 303 Aviation Safety Management
19. PPIL 342 Aviation Meteorology/PHYS 342
20. PPIL 362 Multi-Engine Ground School
21. PPIL 389 Problems in Aviation
22. PPIL 415 Human Factors
23. PPIL 420 Advanced Aerodynamics
24. PPIL 425 Advanced Aircraft Systems
25. PPIL 440 FAR Part 135 Operations
26. All PPIL Flight Labs.
27. POLSC 355 Contemporary Issues
28. PPIL 216 Altitude Chamber
29. PPIL 416 Crew Resource Management
Developed under University General Education (UGE) requirement:
1. PPIL 142 Introduction to Meteorology

Distance Learning video course developed and taught to Tuskegee students
1. Aviation Weather

Developed PPIL 342 Aviation Weather taught asynchronous using KSolver and Camtasia video capture (2008), added NASA data written assignment to this course for the "Honors" program.

Kansas State Online courses:
1. PPIL 342 Aviation Meteorology
2. PPIL 415 Human Factors
3. Tegrity courses: PPIL 342 Aviation Meteorology

Curriculums developed:
1. Revised the complete Federal Aviation Administration (FAA) Federal Aviation Regulation (FAR) Part 147 approved 2100 hour curriculum document for Aircraft Maintenance: Airframe and Powerplant Technician Certificate
2. University offered PPIL curriculum FAA endorsed Airway Science (AWS) AT/BS certified FAA FAR Part 141 professional pilot curriculum document
3. University offered AVM curriculum AWS AT/BS certified FAA FAR Part 147 curriculum document
4. Two-plus-two aviation program curriculum agreement with High Schools having aviation course options and Wichita Technical College
5. Kansas National Guard POC (project manager) for a distance delivered Military Occupational Skill - 20 level training curriculum for UH-60 Blackhawk helicopter maintenance technician. First in the U.S. Army system, and it became the successful model adopted MOS technical training delivered via synchronous distance learning using newly established DL classrooms Army and now worldwide.

Developed PPIL 416 Crew Resource Management in 2003 using video captured scenario driven simulator flights with crew critique format that has become a capstone course for the department, has been adopted as a prerequisite before students can fly C-90 or C-525 transportation trips, and part of the airline bridge program.

1. Revised the complete FAA FAR Part 147 approved curriculum document for Aircraft Maintenance

2. University offered PPIL curriculum AWS AT/BS certified FAA FAR Part 141 curriculum document
3. University offered AVM curriculum AWS AT/BS certified FAA FAR Part 147 curriculum document

Relevant:
1. PPIL 420 Advanced Aerodynamics
2. PPIL 415 Human Factors

Several Laboratory Manuals developed in the Aviation Maintenance curriculum

FEDERAL AVIATION ADMINISTRATION CERTIFICATES:

Airline Transport Pilot
Airplane Single & Multiengine Land
Commercial Privileges
Rotorcraft- Helicopter
Instrument Helicopter
Flight Instructor:
Airplane Single & Multiengine
Instrument Airplane
Rotorcraft-Helicopter
Mechanic:
Airframe & Powerplant

COLLEGE COMMITTEES:

Past positions:
Chair Academic Standards
Chair Course and Curriculum
Chair Re-Instatement
Faculty Salaries and Benefits
Distance Learning
Faculty Senate President (KCT)

Present positions:
Dean’s Tenure and Promotion Advisory Committee
Graduate Task Force
Disaster Relief Committee
State Aviation Advisory Committee
Historical
Sustainability
General Grievance Board

REFERENCES:

COI. Dennis Parry, Chief of Staff, KSARNG (retired 31 March 2003)
Marion Johnston, Aviation Dept. Head, Kansas State University
Chuck Reagan, Executive Vice-President, Kansas State University
COL (ret) Charles Rayl, Attorney at Law, Cottonwood Falls, KS
Mike Renk, VP Business Affairs, North Dakota Technical College, ND
Fred Guzek, Ph.D.
Department of Arts, Sciences, and Business

Education:

B.S. 1977 Lake Superior State University, Earth Science
MPPM 1995 Yale University, Masters in Public and Private Management
Ph.D. 2003 University of Kansas, Business Administration - Marketing

Professional experience: (List current and three most recent positions)

Current: 2003 - present Associate Professor, Department of A. S. & B., Kansas State University, Salina (promotion & tenure July, 2008)

Previous: 2000 - 2001 Visiting Assistant Professor of Marketing, Groupe ESC Graduate School of Management, Clermont-Ferrand, France
1994 - 1999 Research Associate, Kansas Electric Utilities Research Program, Topeka, KS
1983 - 1993 Sales Representative/Branch Manager/Sales Trainer, Berry Material Handling Division of Berry Companies, Wichita/Topeka, KS

Selected Publications/Significant Works of Scholarly Activity:


Dr. Judith Collins  
Associate Professor of English, Kansas State University-Salina  
jcollins@sal.ksu.edu

**Education:**

**Ph.D., English: Rhetoric/Composition-Linguistics.**  
Arizona State University, Tempe, AZ, August 2000.  
Dissertation, Dr. Duane Roen, Chair; Dr. Maureen Goggin, Dr. John Ramage, committee.

**M.A. English, Writing Concentration (Poetry)**  
Western Washington University, Bellingham, WA, June 1993.  

**B.A. English, Writing Concentration (Poetry)**  
Western Washington University, Bellingham, WA, June 1991.

**Professional Experience:**  
**January 2007 to present—Associate Professor of English,** Department of Arts, Sciences, and Business, Kansas State University at Salina.

**August 2001 to December 2006—Assistant Professor of English,** Department of Arts, Sciences, and Business, Kansas State University at Salina.

**Publications (Regional professional journal):**  

**Publications (Conferences/Proceedings):**  
Selected, Peer-Reviewed, Competitive, National
APPENDIX C

Industry letters of Support
Dean Carol Shanklin  
Graduate School  
Kansas State University  
Fairchild Hall, KS 66502

Dear Dean Shanklin:

I would like to express my support of the proposed Professional Master of Technology Program being planned by K-State at Salina. As a summa cum laude graduate from the Engineering Technology program in 1990, there was no direct avenue to further my degree at that time within the Kansas State University family. Looking back on my career, although successful by many standards, I believe that I would have had more opportunities to advance my career with a master's degree. I truly believe that this opportunity will help with recruiting of students into the program, knowing that they have a direct avenue for a master's degree, allowing them to move up in the ranks of corporate America.

As a representative of a company that can see the benefit of this type of program from both a business and a community point of view, I would like to express my excitement and support for this endeavor.

Sincerely,

Doug Oliphant  
Vice President, KSolutions
October 26, 2009

Dean Carol W. Shanklin
Dean of Graduate Schools
Kansas State University
103 Fairchild Hall
Manhattan, KS 66502

Dear Dean Shanklin:

I am writing in support of the Professional Master of Technology Program being proposed by K-State at Salina.

From the briefing I have received, I see this degree as a great asset to the business community. As outlined, I believe it would allow students to focus on the leadership and management aspects of their careers in addition to the technical knowledge they gain. Quality companies appreciate the need for a well-rounded work force, and the attention paid to non-technical aspects of professional development sets this program apart and makes it unique. As an employer of a large number of technically trained people, I see graduates of this program being in high demand in the job market. I also believe many companies, like Cessna, will encourage existing employees to enhance their skill level by earning this degree. K-State Salina already has a reputation for turning out graduates with excellent technical expertise. The addition of a Master’s degree that will teach many of the tools needed for technical program management, in addition to technical skills, will make the K-State-Salina program that much more competitive.

Thank you in advance for your consideration of my perspective,

Sincerely,

Michael J. Pierce
Manager, Product Marketing
CESSNA AIRCRAFT COMPANY
Dear Dean Shanklin:

I am writing in support of the proposed Professional Master of Technology Program being planned by K-State at Salina. This is yet another example of the campus at Salina pushing the envelope to provide the best quality applicants for industry.

At Duncan Aviation we interview applicants from several different institutions for many different types of jobs. Over the past few years we have recognized the need to focus more on soft skills that an applicant brings to the table as they bring a new level of professionalism to our teams and have the ability to excel faster in their career. For your institute to recognize this need and incorporate it into a program says something in itself. I would believe students taking advantage of this program would not only see a different aspect of their future career, but would also be highly sought out by the business community.

As our company promotes from within, this may also present opportunities for leadership training for our existing employees looking for advancement. K-State Salina already has a reputation for turning out graduates with excellent technical expertise. The addition of a Master's degree that teaches "soft" as well as hard skills will make the K-State-Salina program much more competitive.

Thank you in advance for your consideration of my perspective.

Sincerely,

Kevin Melchick
Avionics/Instrument Shop Manager
Duncan Aviation
Lincoln, Nebraska
November 9, 2009

Dean Carol Shanklin
Graduate School
Kansas State University
103 Fairchild Hall
Manhattan, KS 66506-1103
Dear Dean Shanklin:

This correspondence is in support of the Professional Master of Technology (PMT) program being submitted for consideration by Kansas State University, Salina campus. Although today's students enter the workforce with well formed technical skills which are desired by industry, the organizational, leadership, and communication skills required to progress in a professional career tend to be in limited supply. Today, many of these skills are either self-taught or cultivated by employers.

The PMT program would provide a means for students and professionals to build these skills in a focused and respected environment. For those companies that value these skills, but do not have the resources to provide in-house education, the PMT program would allow a means for them to further develop their professionals.

Considering the number of small to medium companies in central and western Kansas, K-State Salina has an opportunity to serve a population that does not currently have access to a program like the Professional Master of Technology. Ultimately, the ability to provide the professional skills within the PMT along with the already respected technical skills of their undergraduate programs will allow the Salina campus to offer students the opportunity to fully prepare for their futures.

Sincerely,

Lisa L. Atchison
Learning Solutions & Services Sr. Manager
Spirit AeroSystems, Inc.
(316) 523-2004
(316) 214-6479

c: Brian Boeding, MET Industrial Advisory Board member, Spirit
   Brian Black, Community Relations, Spirit
   John Harris, University Relations, Spirit
November 4, 2009

Dean Carol Shanklin
Graduate School
Kansas State University
Fairchild Hall
Manhattan, KS 66502

Dear Dean Shanklin:

I have had the privilege of being on KSU-Salina’s Technical Advisory Board for the last 8 years and have seen the quality of that program. Adding to this program with the proposed Master of Technology degree would be a great boon to the Salina area to have well educated folks with technical and people skills.

Sincerely,

Tom Sydow
Westar Energy
NW Regional Director

TS/In
From: "Darian L Bebout" <darian.l.bebout@boeing.com>
To: "Dr. Saeed Khan" <pasurvey@k-state.edu>
Sent: Tuesday, October 20, 2009 11:15:57 AM GMT -06:00 US/Canada Central
Subject: RE: Proposed Graduate Program Survey

Saeed,

I have completed the survey as requested. I think you have a very forward-looking program which allows students to focus on the leadership/management aspects of their career in addition to the technical aspects. Quality companies should definitely appreciate and understand the need for the well-round aspects of your program.

Best of luck to you.

Regards,

Darian

Darian L. Bebout
B-52 EHF Program Manager
Boeing - Integrated Defense Systems - Wichita
Office: 316-977-1506
Cell: 316-253-6876
Fax: 316-977-0774
M/C: K84-41
darian.l.bebout@boeing.com
APPENDIX D

K-State Internal Support Letters
Dennis,

The College of Arts & Sciences supports your MMT degree students taking the Stat 703 online course, as agreed to by department head Dr. Neilil, beginning in Fall 2011.

Brian

Brian S. Spooner, Ph.D.

University Distinguished Professor of Biology, and

Dean, College of Arts and Sciences

phone: 785-532-6000

From: Kuhlen, Dennis [mailto:Dkuhlen@k-state.edu]
Sent: Tuesday, March 02, 2010 11:03 AM
To: 'Brian Spooner'
Subject: Graduate Program
Dennis,

I support your proposed Professional Master of Technology (PMT). Additionally, I approve the inclusion of our KANGT 830 and KANGT 830 in your proposed PMT degree program.

Let me know if you need an official letter or this email suffices.

Yas

Yas M. Eshadi
Dean and Professor
Devin Nguyen Koglin Chair in Business Administration
College of Business Administration
Kansas State University
110 Calvin Hall
Manhattan, KS 66506
Phone: 785-532-7227
Fax: 785-532-7216
Email: ye@kstate.edu

-----Original Message-----
From: Yuhhan, Dennis [mailto:dohyun@k-state.edu]
Sent: Tuesday, March 02, 2010 11:04 AM
To: Yas Eshadi [yehadi@k-state.edu]
Subject: Graduate Program

Yas-

Would it be possible for you to send me (or Saeed Khan) a statement of support for our graduate program?

Dennis

March 2, 2010
Yas M. Eshadi
Dean - Business Administration
110 Calvin
Kansas State University

Sub: Use of online versions of KANGT810 and KANGT820 by proposed
March 1, 2010

Dr. Frederick J. Guzek, Associate Professor
Department of Arts, Sciences and Business
College of Technology and Aviation
Kansas State University
Salina, KS 67401

Dear Professor Guzek:

This responds to your February 24, 2010 request for a letter of support regarding the proposed inclusion of Operations Management and Analysis (Mang810) and Behavioral Management Theory (Mang820) in the proposed Professional Master of Technology curriculum to be offered by the Department of Arts, Sciences and Business. As you indicated, students in the proposed degree program will take five core courses, including the two management courses as degree requirements providing practical management education. Your request is predicated on approval of the degree proposal by your college, K-State Graduate School, and Kansas Board of Regents.

As you know, Mang810 and Mang820 are offered on the Manhattan campus and online. The faculty of the College of Business Administration has requested that students living within 30 miles of K-State’s Manhattan campus attend the on-campus course, or obtain approval of the graduate program director before enrolling in the online course. It is our understanding the anticipated enrollment from the Professional Master of Technology in the two courses, either through on-campus and/or online, will be manageable within the current course offerings by the College of Business Administration.

We greatly appreciate the opportunity to collaborate with your department and college regarding the graduate programs offered by K-State. We believe the interdisciplinary nature of your proposed degree program will be enhanced through the inclusion of graduate courses in management offered by the College of Business Administration. Please do not hesitate to contact me (jkatz@kstate.edu, 532-7190) should you have questions regarding our support for the program.

Sincerely,

Jeff Katz
Jeffrey P. Katz, Ph.D.
Professor and Associate Dean
Director of Graduate Programs
The Ediger Family Chair in Business

Copy to: Dr. Stacy Kovar, Chair of the CBA Graduate Studies Committee
November 25, 2009

Raju Danda, Professor
Engineering Technology Department
STC 101C
K-State Salina
2310 Centennial Road
Salina, KS 67401

Dr. Danda,

The K-State IMSE faculty does not object to your department's plans to introduce the following courses:

COT 720 Application of Lean and Six Sigma Methods (3 credit hours)
COT 721 Reliability-Centered Maintenance of Plant Equipment (3 credit hours)

Sincerely,

Bradley A. Kramer
Ph.D.
Te and Letya Delaet Engineering Chair
Professor and Head, Industrial and Manufacturing Systems Engineering
Director, Advanced Manufacturing Institute
July 9, 2009

Dr. Saeed M. Khan  
Associate Professor & Interim Department Head  
Engineering Technology  
Kansas State University at Salina

Dr. Khan,

The Department of Electrical and Computer Engineering supports the new course proposals for COT 632 and COT 731 in Engineering Technology. We believe the content and audience for these courses are significantly different from what we offer in our curriculum. If you have any questions or concerns, please feel free to contact me.

Sincerely,

Don M. Gruenbacher

Associate Professor and Head  
Phone: (785) 532-4692  
Email: grue@ksu.edu
August 18, 2009

Dr. Saeed Khan
Associate Professor & Department Head
Engineering Technology
Kansas State University at Salina
2310 Centennial Road
Salina, KS 67401

Dear Dr. Khan:

The Department of Mathematics has been informed about the proposal for COT 650, Analytical and Computational Tools in Engineering Technology, that you would like to offer at K-State at Salina, and we have no objections to the proposal.

Always,

[Signature]

Louis Pigano
Professor & Department Head
July 9, 2009

Dr. Saeed M. Khan
Associate Professor & Interim Department Head
Engineering Technology
Kansas State University at Salina

Dr. Khan,

The Department of Psychology supports the new course proposal for COT 792 Applied Research Skills and Methods. We believe the content and audience for this course is significantly different from what we offer in our curriculum. If you have any questions or concerns, please feel free to contact me.

Sincerely,

[Signature]

Professor and Head
Phone: (785) 532-6273
Email: jsaeeemk@kstu.edu
February 8, 2010

Dr. Saheed M. Khan
Associate Professor and Department Head
Department of Engineering Technology
Kansas State University at Salina
2310 Centennial Road
Salina, KS 67401

Dear Dr. Khan,

I am writing in support of the Professional Master of Technology Program at K-State Salina. In particular, the Department of Statistics agrees to hold seats in the online Statistics 703 class for students in the PMT program. Professor James Higgins offers this class and is willing to hold space for five to ten students as requested with an anticipated start date of fall semester 2011.

Best wishes for a successful program. Please let me know if additional course accommodations need to be considered.

Sincerely,

James W. Neill
Professor and Head
Hi Don,

Apologies again for the delay, but I write with good news: we’ve reviewed the proposed Professional Master of Technology and the new course, COT 701 “Advanced Technical Communication,” and we support the creation of both. While there is some overlap between the proposed COT 701 and our existing ENGL 759, the differences of purpose and implementation outlined by Dr. Khan warrant the creation of COT 701.

Down the road, we may want to think about how some of our courses (such as ENGL 759) could be used towards the proposed degree.

Best wishes,

Karin

---

Karin E. Westman
Department Head & Associate Professor
Department of English, Kansas State University
106 English / Counseling Services Building
Manhattan, KS 66506
westmank@ksu.edu ~ 785.532.2171
http://www.ksu.edu/english/westmank

At 11:45 AM 3/3/2010, Von Bergen, Donald wrote:
>Hi Karin!
>
>Here is some additional information regarding the proposed technical communication course for our Professional Master of Technology degree.
>
>Feel free to contact Dr. Saeed Khan directly if you have any questions.
>
>Thanks for your support!
>
>Don
>
>== --
>
>-----Original Message-----
>From: Khan, Saeed M.
>Sent: Tuesday, March 02, 2010 12:24 PM
>To: Von Bergen, Donald
>Subject: Re: English course/COT 701 differences
>
>Don:
>
>Please thank Karin for her input on overlap concerns between ENGL 759 and COT 701. Based on our description for COT 701 I am noting the following differences and points that I think makes it important for us to have this course,
5. Graduate Student Affairs Committee
No report.

6. Graduate School Committee on Planning – Charles Moore, Chair

- Second Reading. Changes to the Graduate Handbook, Chapter 5, The Graduate Faculty - Section A.4.
  Evaluation Criteria

On behalf of the Committee on Planning, Charles Moore proposed the following changes to the Graduate
Handbook. The motion passed.

Second Reading. Changes to the Graduate Handbook, Chapter 5, The Graduate Faculty, Section A.4.
Evaluation Criteria

A.4 Evaluation Criteria
The granting of Graduate Faculty membership by the Graduate Council is based on the candidate's having
demonstrated independence in scholarship, research, or creative work; a high degree of expertise; and the ability to
make significant contributions to the body of knowledge in his or her discipline. The following criteria do not
guarantee admission to the Graduate Faculty, but they do form the basis for consideration:

1. A nominee must have earned the terminal degree recognized within the field of specialization. In fields
   in which more than one type of degree may be considered terminal or in which ambiguities exist, the
departmental or program graduate faculty must address themselves specifically and in detail to this
criterion as they assess the candidate's qualifications.

   In the exceptional case of a candidate who does not hold a terminal degree but who is recommended by
   the departmental graduate faculty because of an outstanding national reputation in his or her field, the
departmental graduate faculty must provide a particularly careful justification.

2. In fields in which research is expected, the nominee must have published at least one research article in a
   refereed journal. The appropriate committee is responsible for ascertaining that the nominee is a major
   contributor to and a principal author of the article; that the paper represents a substantial original
   contribution to the discipline; and that the referees apply standards accepted by the discipline.

   Research, as used in these criteria, means critical and exhaustive investigation or experimentation having
   for its aim the discovery of new facts and their correct interpretation, the revision of accepted
   conclusions, theories, or laws in the light of newly discovered facts, or the practical applications of such
   new or revised conclusions, theories, or laws (Webster's Third International Dictionary of the English
   Language, 3rd edn, unabridged).

3. In lieu of publication in a refereed journal, there must be material evidence of research or other creative
   acts performances, exhibitions, published creative writings, patents that represent a comparable
   achievement within the nominee's field.

   A candidate whose most recently published scholarly or creative work is more than five years old will
   normally not be considered. If the departmental or program graduate faculty judges that work done more
   than five years prior to nomination is of sufficient significance to justify admission to the graduate
   faculty, a request for an exception shall be made.

   Administrative experience is inadmissible as justification for membership on the Graduate Faculty.
- Second Reading. Changes to the Graduate Handbook, Chapter 6, Graduate Council Constitution, By-Laws, and Procedures – Section B.3 Election Procedures

On behalf of the Committee on Planning, Charles Moore proposed the following changes to the Graduate Handbook. The motion passed.

Second Reading. Changes to the Graduate Handbook, Chapter 6, Graduate Council Constitution, By-Laws, and Procedures – Section B.3 Election Procedures

B.3. Election Procedures

It is the responsibility of the Graduate Council to supervise the election of Graduate Council members from Academic Areas and colleges.

Each Academic Area will elect four representatives to the Graduate Council, and each representative will have a term of three years. Terms will be arranged so that at least one member is elected each year from each Academic Area. The four representatives of each Academic Area must be from at least two colleges.

Each college will elect one representative to the Graduate Council, and each representative will have a term of three years. Terms will be arranged so that at least two college representatives are elected each year.

- No academic unit may have more than one member on the Graduate Council. A representative may serve no more than two terms consecutively. A representative is eligible for reelection after one year.

- The Graduate Council is responsible for supervising the election of the Graduate Council members. No later than the second Monday of February, the Election Committee will call for nominations of eligible Graduate Faculty members to stand for election for the vacant Graduate Council seats. Ballots for the election of representatives to the Graduate Council will be provided electronically by the Dean of the Graduate School.

Members of the Graduate Faculty are eligible to serve as representatives to the Graduate Council. College and university administrators (those with more than 50% administrative appointments, e.g., the Provost, Vice-Provosts, Associate Provosts, Assistant Provosts, Deans, Associate Deans, Assistant Deans, Assistants to the Dean, etc.) are not eligible to serve as representatives. Graduate Faculty from all departments and graduate programs within the college or the Academic Area vote for the eligible members. The election of representatives must be completed by April 1.
Second Reading. Changes to the Graduate Handbook, Appendix A – Graduate Student Rights and Grievance Procedure

On behalf of the Committee on Planning, Charles Moore proposed the following changes to the Graduate Handbook. The motion passed.

Second Reading. Changes to the Graduate Handbook, Appendix A – Graduate Student Rights and Grievance Procedure:

A. GRADUATE STUDENT RIGHTS AND RESPONSIBILITIES

1. Every graduate student has:

   a. Freedom of inquiry, conscience, expression, and association and the right to petition for the redress of grievances.

   b. The right, to the extent permitted by law, to have any information about his or her opinions and associations unrelated to academic performance or assigned responsibilities that has been acquired by professors or administrators in the course of their work as instructors, advisors, or counselors held confidential at his or her request and not disclosed to others without his or her consent.

   c. Freedom from unfair treatment by faculty or administration in the assignment and evaluation of academic work toward the completion of requirements for a particular course.

   d. The right to due process in the conduct of proceedings pursuant to the provisions of this document or of any proceedings conducted under any other provisions of any other rule or regulation governing Kansas State University.

   e. The right to immunity from reprisal in the form of University disciplinary action or proceedings for seeking redress pursuant to the provisions of this document.

2. Every graduate student is responsible for:

   a. The exercise of applicable rights and freedoms, as enumerated above, in a manner that does not materially and substantially interfere with the requirements of appropriate discipline in the operation of the institution nor infringe upon the rights of other students, faculty, or staff.

   b. Completing the requirements and meeting the standards of any course in which he or she is enrolled.

   c. Understanding the legal and ethical standards applicable to scholarship in general and to the student's discipline, and understanding the policies and procedures that the University has in place to ensure compliance with these standards.

   e-d. Diligent pursuit and timely completion of all graduate research responsibilities associated with progress toward a degree.

B. GRADUATE STUDENT ACADEMIC GRIEVANCE PROCEDURES

The Graduate Handbook contains general rules and procedures governing graduate education developed by the Graduate Council. In addition, each graduate program may have more detailed departmental or program guidelines that specify how that degree program operates within general Graduate School policies, and what graduate students can expect during their graduate career. If departmental or program policies are inconsistent with Graduate School policy, the Graduate School policy is the overriding policy.
1. Scope of Authority

This policy is designed to resolve concerns and grievances brought by graduate students related to their graduate level academic program as more fully defined below. This policy does not address concerns or grievances related to courses taken from instructors associated with consortiums or groups external to Kansas State University. In such cases, the grievance procedures for such of the external consortiums or groups should be used.

The formal grievance must be initiated within 6 months 90 working days of the time that the graduate student knows of the matter prompting the grievance, or the graduate student relinquishes any opportunity to pursue the grievance. Under these procedures, a graduate student is any person who has been formally admitted as a graduate student at the time the alleged events leading to the grievance occurred. A grievance means a dispute concerning some aspect of academic involvement arising from an administrative or faculty decision which the graduate student claims is unjust or is in violation of his or her rights established through formal prior agreement. "Grievances" under this procedure shall include disputes over grades, course requirements, graduation/degree program requirements, and thesis and dissertation committee and/or advisor decisions.

Non-academic conduct of graduate students is governed by the KSU Student Code of Conduct in the Student Life Handbook and the hearing procedures therein. The undergraduate grievance procedure, as described in Appendix A of the Student Life Handbook, applies to any academic matter involving an undergraduate student taking graduate courses. The Veterinary Medicine academic grievance procedures, as described in Appendix A of the Student Life Handbook, govern academic matters involving courses within the DVM degree. The K-State Honor & Integrity System, as described in the Student Life Handbook, governs issues of academic integrity. Allegations of misconduct believed to constitute discrimination, including sexual harassment as described and defined in the “Policy and Procedure for Discrimination and Harassment Complaints” in the University Handbook should be referred to the Affirmative Action Office or the Office of Student Life. Allegations of assault covered under the “Policy Prohibiting Sexual Violence” should be referred to the Office of Student Life.

2. Definition of Terms

a. Graduate Student - Under these procedures, a graduate student is any person who has been formally admitted into the Graduate School of Kansas State University and was enrolled as a graduate student at the time the alleged events leading to the grievance occurred.

b. Grievance - A grievance means a dispute concerning some aspect of academic involvement arising from an administrative or faculty decision that the graduate student claims is unjust or is in violation of his or her rights established through formal prior agreement. "Grievances" under this procedure shall include disputes over grades, course requirements, graduation/degree program requirements, and thesis and dissertation committee and/or advisor decisions.

c. Respondent - The person(s) against whom a grievance is being made.

d. Working Days - For the purpose of this section a "working day" is defined as any weekday that is part of the regular nine-month academic calendar, including all days that classes are conducted and the period of final examinations. Legal holidays and the time when summer school is in session are excluded from the definition of "working day." However, if it is agreed to by all of the parties, a hearing can be conducted and/or the process completed during a vacation period.

e. Faculty advisor - A faculty member assigned by the graduate program director or department head to provide guidance to the graduate student until the appointment of the student’s supervisory committee.
3. Guidelines for Administrative Review and Conflict Resolution

   a. The graduate student should attempt to resolve any conflict with the faculty member, supervisory committee, or administrator involved.

   b. If, after earnest inquiry, the conflict remains unresolved, the graduate student should discuss the conflict with the department head/chairperson, or other immediate administrative superior of the respondent, the Academic Dean or his/her designee and, if pertinent, with any relevant departmental faculty member or committee. The outcome of this conflict resolution process shall be a written document. If the outcome of this conflict resolution process is successful, then the resolution shall be reduced to writing. The resolution document should be signed by all participating parties to confirm their receipt of the document. Copies of the signed resolution document will be provided to the graduate student, respondent, administrative superior, and Academic Dean involved in the conflict resolution session. The official copy shall be sent to the Graduate School to be retained in the student's file.

   c. If the conflict resolution process is not successful, the Academic Dean and the Associate Dean of the Graduate School will confer within 10 working days following receipt of the conflict resolution process document to determine if further conflict resolution steps should be pursued. The outcome of this conferral conference will be shared in writing with all parties participating in 3b.

4. Formal Grievance Procedure

   a. If the grievance is not resolved by the above discussions and the graduate student chooses to pursue the matter further, the issue must be reduced to writing by the graduate student and a written statement and the Notice of Grievance form to the Associate Dean of the Graduate School within 10 working days after the receipt of the outcome of 3c and sent immediately to the Associate Dean of the Graduate School. A Notice of Grievance form is available in the Graduate School or on the Graduate School website. The written grievance shall include a clear, concise statement regarding the nature of the academic matter to be resolved, which may include the policy or policies/procedures thought to be violated, and the redress requested. The Associate Dean of the Graduate School shall forward a copy of the grievance to the respondent. Within 10 working days after receipt of the grievance, the respondent shall provide the Associate Dean of the Graduate School with a copy of his or her written response.

   b. The grievant or respondent may request a one-time extension for the ten (10) working days for good cause. The grievant must file a written request for an extension with the Grievance Chair, who will review and rule on the request after consultation with both parties and may consult with the Associate Dean of the Graduate School. Grounds for an extension may include but not be limited to: a) Dispute resolution in process; b) Affirmative Action complaint and investigation is in process; c) Extenuating personal circumstances.

   c. Upon receipt of the written response, the Associate Dean of the Graduate School shall, within 10 working days, appoint an ad hoc grievance committee to hear and make a recommendation.
regarding the grievance. The Associate Dean of the Graduate School shall appoint, from the membership of the Graduate Council, a committee chair (without vote, unless there is a tie), and two committee members. A member of the Graduate School staff will be selected as secretary (without vote). Two graduate students will be appointed as committee members from a slate of nominees selected by the Graduate Student Council.

d. The hearing shall be scheduled within 30 working days after the appointment of the ad hoc grievance committee barring extenuating circumstances.

e. The hearing is not a legal process; however, either party may arrange for a court certified reporter to record the hearing at the party’s expense. If recorded the transcription is the property of the party paying for the service. The transcription will not be used by the committee in their deliberations.

e-f. A student with a disability requiring special accommodations should communicate the specific needs to the Associate Dean at least five working days prior to the scheduled hearing.

d-g. Guidelines for ad hoc grievance committee hearings

1. Pre-hearing procedures

a. Notice of the time and place of the hearing shall be given by the chair to the graduate student and the respondent not less than 10 working days prior to the hearing.

b. The notice shall include the written grievance and the written response of the respondent.

c. A copy of the procedures guiding the hearings as outlined in Step 2 Hearing (4d2) shall accompany the notice.

d. The following must be submitted by each party to the chair at least five working days prior to the hearing:

i. A copy of all written supporting documentation that the party will present at the hearing,

ii. A list of witnesses to be called by the party (each party is responsible for ensuring that his/her witnesses are at the hearing), and

iii. The name of any hearing advisor who will accompany the party to the hearing and whether the advisor is an attorney. The attorney hearing advisor may advise the party but not otherwise participate in the proceedings. If the advisors accompanying both the grievant and respondent are attorneys, the hearing chair also will be provided appropriate counsel.

iv. The name of any court certified reporter who will accompany the party to the hearing, if applicable.

e. Copies of materials listed in 1d will be provided to the grievant and respondent a minimum of three working days prior to the hearing.

2. Hearing
The hearing is not a legal process and consequently will be conducted informally and will follow the procedures outlined in this section. The committee will have complete discretion in deciding any procedural questions that arise during the hearing.

At the discretion of the committee, arrangements may be made for procedural formats for the hearing for students enrolled in distance graduate education programs.

At the hearing, each party may be accompanied by a hearing advisor, who may advise the party, but not participate in the hearing.

All hearings shall be closed except for parties to the grievance and their hearing advisors unless the graduate student requests that the hearing be open. All parties are advised that the committee routinely records the hearing for its own use.

Either party may arrange for a court certified reporter to record the hearing at the party’s expense. The party must notify the Grievance Chair according to pre-hearing procedures outlined in 4gd. If recorded, the transcription is the property of the party incurring the expense of the service. The transcript will not be used by the committee in their deliberation.

The committee will permit each party to present a brief opening statement of no more than 10 minutes.

The evidence shall be presented by the graduate student and then by the respondent at the hearing.

The parties and the committee shall have the opportunity to question all witnesses.

The committee will accept any new evidence, information, or testimony, which it feels is pertinent to the grievance and will help the committee understand and evaluate the issue(s) before it. The committee chair will determine the relevance and materiality of the evidence offered. Legal rules of evidence shall not apply.

Following the presentation of evidence, the committee will permit each party to present a brief closing statement of no more than 10 minutes.

The committee will meet in closed session to deliberate and recommend action to the Dean of the Graduate School on the grievance.

Within ten (10) working days from the conclusion of the hearing, the committee will prepare a report that will serve as its recommendation to the Dean of the Graduate School. The report will contain the factual findings and recommendations of the committee and the reasons for the recommendation. The findings of the committee are final and cannot be appealed.

The Dean of the Graduate School shall respond to the recommendation of the committee within ten (10) working days of receiving the committee’s recommendation. Copies of the response and notification of subsequent actions should be sent to the committee and the parties of the grievance.

The complete record, including the report to the Dean of the Graduate School, evidence obtained during the hearing, and the response from the Dean of the Graduate School shall be placed in a file by the grievance committee chair. This
file shall be retained in the graduate school for at least three years following the conclusion of the grievance hearing. Each party may, at its own expense, copy the record or any part thereof at a place and time to be determined by the Dean of the Graduate School.

5. Enforcement of the Graduate School’s Decision

The Dean of the Graduate School has the authority and responsibility to enforce the decision.

7. Graduate School Committee on Assessment and Review

No report.

8. Graduate Student Council Information – Kara Dillard, President

Kara Dillard presented the following update of the Graduate Student Council’s (GSC) activities:

The new GSC officers are as follows:
Megan Miller - President
Matthew Sellner - President Elect
Graciela Andrango - Treasurer
Jedidiah Riley - Secretary

9. University Research and Scholarship

No report.

10. Other business

None.

11. Graduate School Calendar of Events

- For a list of Graduate School Events, please visit the Graduate School website at:  http://www.k-state.edu/grad/gshome/calendar.pdf.

Council was adjourned at 4:21 p.m.