

# MCAFDO Conference Workforce Development Opportunities

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# Overview | To Build Potential

- 1. Mid-Continental Workforce Needs
- 2. Workforce Development Solutions
- 3. An FDA Example
- 4. Action Steps and Questions







#### Research facts:

 To advance the purpose of this association and the interests of the Mid-Continental region we need to develop a stronger workforce in STEM fields such as food, drug and consumer product safety.



- The member organizations need managers who are able to handle challenging environments at an advanced level—a are sought-after quality for individuals filling leadership positions.
- The workforce is lacking in fundamental professional skills and need to be able to draw from multiple disciplines to solve problems.
- Firms in the region identified the PSM to be one of the few degrees showing the highest viability responsive to their needs.





The Professional Science Master in Applied Science and Technology (PSM):

- A 30-credit interdisciplinary master's degree that addresses the region's challenges
- Includes three course components
- Nationally affiliated program





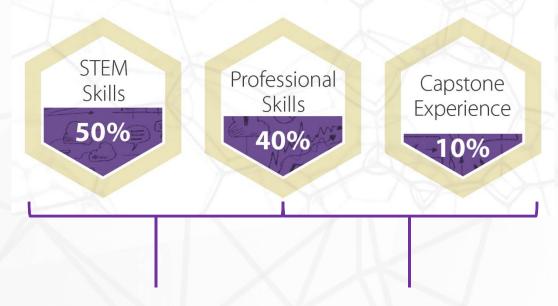








## BUILD YOUR EXPERTISE



Professional
Interdisciplinary Sciences
Graduate Certificate
(12 credits)

Professional Skills for STEM Professionals Graduate Certificate (15 credits)





1. A Stem Component that must be at least 50% of the curriculum or 15 credits.



- Advanced scientific and technical education with courses such as: Food Law and Quality Assurance of Food Products
- Customizable based on student's interest areas and career goals
- Cross-disciplinary opportunities for learning

<b>Statistics Electives</b>	3 credits
STEM Electives	12 credits

Students may also be given credit for prior graduate work received within six years.





2. A Professional Skills component that makes up 40% of the program or 12 credits.



- Leadership and management
- Communications
- IT
- Public policy
- Finance and economics
- Creativity/critical thinking

Interdisciplinary Process	3 credits
<b>Professional Skills Electives</b>	9 credits

Students may also be given credit for prior graduate work received within six years.





3. A Capstone Component that makes up 10% of the program or 3 credits.



- Hands-on project that solves a real-world challenge
- Applying the scientific knowledge and professional skills learned throughout the program
- Deliver professional written and oral presentations in a STEM Environment

Capstone Experience I	1 credit
Capstone Experience II	2 credits





What skills will students gain through the capstone experience?



- Use appropriate data to inform decisions
- Work collaboratively with Food & Drug as well as other STEM professionals
- Identify a potential project problem to solve and recommend solutions, guided by a faculty mentor, a Graduate Faculty Supervising Committee, and the option of an industry mentor

Students participate in a variety of professional development experiences, including an internship where they are expected to implement solutions in collaboration with their internship host organization.





## **Graduate Certificate**

#### **Professional Skills for STEM Practitioners**

#### Develop skills in:

- Managing a project or program
- Communicating in a professional environment
- Implementing innovative solutions



<b>Professional Skills Electives</b>	12 credits
<b>Capstone Experience Courses</b>	3 credits

#### **Topics include:**

- Communication Skills
- Developing Teams & Leaders
- Analytics & Business Metrics
- Managerial Finance
- Leading Adults in a Globalized and Diverse World
- Interdisciplinary Process





## **Graduate Certificate**

## **Professional Interdisciplinary Sciences**

#### **Develop ability to:**

- Transform ideas and solutions
- Perform in two or more disciplines



Interdisciplinary Process	3 credits
STEM and Prof. Skills Electives	9 credits

#### **Topics include:**

- Food Science
- Consumer research
- Quality assurance of food products
- Horticulture
- Statistics
- Team building, leadership and communication
- Urban food systems
- Public Policy





#### **Key features:**

Professional Science Master in Applied Science and Technology (PSM) and Graduate Certificates

#### Interdisciplinary

- Build skills in one or more relevant STEM and professional fields, such as food science, consumer science, analytics, managerial finance, and leading teams
- Be able to integrate information from multiple disciplines to accurately identify problems as well as develop and implement innovative solutions

#### **Flexible**

- Courses offered face-to face, online or a hybrid
- Work full-time while attending day, evening and/or weekend classes
- No out-of-state tuition

#### Customizable

Programs are tailored to match interests and career goals





# University Industry Collaboration PSM

- Improved process, products and services
- Valuable intellectual property
- Long-term sustainable collaborations

Applied Academic Programs

- Well educated talent
- Knowledge transfer
- Career advancement

- Knowledge transfer
- Competitive advantage
- Expanded innovative capacity

Industry Engagement Faculty Engagement

- Knowledge transfer to and from industry
- Improved curriculum
- Improved research opportunities





# Workforce Needs | An Example



## **Expanding Her Potential**

Worked in the field of science and health for more than 28 years and is a physical science technician with the Food and Drug Administration (FDA).

"This degree propelled my desire to know more academically and do more with what I've learned. K-State University offers an opportunity to fulfill the desire for more and accomplish the quest for serving and protecting the American consumer, with more applicable and relative courses of study and academic credentials geared toward moving me up the career ladder and into key positions within the federal government."

-- Terri Lewis





# Workforce Needs | An Example



## **Expanding His Potential**

Completing the PSM remotely from Portland, OR, and is a veterinarian who is now working as a program manager on the learning and development team.

"I have made the transition from clinical work for several reasons, and am looking to continue to develop and improve my ability to support the associates at Banfield. I am responsible for developing and implementing training strategies from our onboarding program to associate wellbeing and quality improvement processes. I am looking forward to understanding the business needs as well as how I can make a positive impact."

-- Seth Vredenburg





# Workforce Needs | We Listened!



### **Expanding Your Potential**

"We need higher education to be an incubator, we need that environment to grow future workers. I need colleagues who can already hit the ground running."

"They are seeing a lot of retirements right now, and so industry really needs folks like you (PSM graduates), to fill the shoes of the people that are leaving.

Recognizing there is going to be a learning curve, I think the capstone piece serves as a bridge, a huge selling point."

Julie Vosilus, State Liaison, Kansas U.S. Food and Drug Administration





# **PSM Admissions Requirements**

### Enrollment can begin fall, spring or summer:

- Graduate school online application\*
- Official transcripts\*
- GPA: 3.0 or above\*
- Statement of objectives
- Three recommendations
- TOEFL scores for international applicants

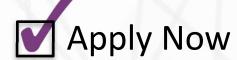
#### The next enrollment cycle begins in March 2017

\*Required for certificates



# Let's Connect

**Contact:** 



Lunch and Learn

Information session

Customized cohort

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Learn more at:

www.olathe.k-state.edu/psm

Follow us:



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# PROFESSIONAL SCIENCE AND TECHNOLOGY

Questions ?





