

THE SYLLABUS



Manhattan cohort of the MAB Class of 2021 at their banquet reception during the 2019 January Campus Session.

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What's inside:



Blockchain Technology

A summary of last fall's Blockchain Drive-In Workshop is on page 2. See what was shared about the new technology and how it is changing supply chain management.



MAB Class of 2021

We were so excited to welcome the class of 2021 to Manhattan during the January campus session! They learned from various guest speakers and saw first hand what MAB is all about. We're already looking forward to seeing them soon at our next campus session in March. Check out page 3 to see the students that make up the class of 2021.



Students & Alumni

Our current and past students are out doing big things! There's nothing more rewarding than seeing students earn promotions and accomplish milestones. Keep us up to date on where life is taking you so we can share vour achievements!



Alaska Ag Tour

Join Master of Agribusiness and Kansas Farm Bureau September 1-10, 2019 as we take an in-depth tour of interior Alaska. Stops include: Anchorage, Kenai Fjords National Park, Wasilla, Denali National Park and Fairbanks and the Alaskan State Fair. More information regarding pricing and the itinerary can be found on page 10.



Blockchain Drive-In Workshop



Presenter Andy Brudtkuhl speaking during his mini workshop session.

MAB, Kansas Farm Bureau and Kansas Department of Agriculture host workshop to explore agricultural applications for new database tracking methods

Nothing brings K-State alumni and other professionals together quite like a Homecoming football game, continued education, and professional development.

On October 12, 65 agribusiness and animal health professionals explored how a relatively new way of keeping data, called blockchain, can help their businesses and industries.

One of the workshop keynote speakers, Andy Brudtkuhl, director of emerging technology with the National Pork Board, shared his research findings and the impacts of the technology applied to the food supply chain and specifically, how it can benefit pork producers.

"Blockchain is really just a database," said Brudtkuhl.

Blockchain is a list of digital records, called blocks that are linked using cryptography. Each block contains a string of numbers and letters produced by a mathematical function — called a cryptographic hash — related to the previous block, a timestamp, and transaction data. By design, it's difficult to modify. Once recorded, the data in any given block cannot be altered retroactively without alteration of the subsequent blocks.

Blockchain technology was invented in 2008 by an unknown person using the name Satoshi Nakamoto to serve as the public transaction ledger of the cryptocurrency bitcoin, but since then other industries have explored its use.

The chain in blockchain works by referencing the previous block's hash, Brudtkuhl said. There's a certain amount of trust built in because everyone involved has a copy, and

the system is designed so if someone removed a block, it would be easily discovered.

Currently, supply chains rely largely on trust, he said, noting that blockchain technology could increase transparency, keep records from being changed (immutable), increase traceability and improve efficiency.

For traceability from pig to pork chop, the biggest challenge is when pigs go to the processing plant, he said, noting that eventually, DNA evidence might be used.

"Right now, a consumer has no idea what steps (a beef) product has been through, and a producer has no idea where their product ends up," said Tyler Lindholm, chief of ranching operations with BeefChain, a new "rancher-centric" supply chain using blockchain technology. Lindholm is a Wyoming rancher and chairman of the Wyoming Blockchain Task Force. He is also a Wyoming state representative.

He believes that movement toward use of blockchain technology should be producer-driven rather than government-driven.

Such moves will come at a cost, Lindholm added, but higher premiums for enabling unique animal identification and ensuring origin traceability allows ranchers to receive premium pricing for their beef and provides consumers with greater confidence in the meat they consume.

To cap off Homecoming week celebrations, the MAB program hosted a tailgate before the big game against Oklahoma State for all workshop attendees and alumni to attend.

Workshop Sessions included:



- Blockchain 101
 Andy Brudtkuhl, National Pork Board
- First Movers, The Case of Wyoming Beef Tyler Lindholm Beefchain.io
- Practical Applications
 Lukas Fricke & Neil Johnson, ChorChek
- Practical Applications
 Rachel Gabato, Ripe.io
- Blockchain: Use Cases in Agribusiness,
 Finance and Commodity Trading
 Tanner Ehmke, Co Bank

If you have suggestions for upcoming workshops, we'd love to hear from you!

Meet the MAB Class of 2021!

Animal Health Cohort

Shayna Allison

Animal Technician 3 Siemens Healthcare Diagnostics Hollister, California

David Ashford

Retired Foreign Service Officer Riverdale, Maryland

Michael Bonacorsi

Production Technician Syngenta Seeds Woodland, California

Donald Brainard

Veterinarian Ottawa, Illinois

Megan Espinda

Animal Science and Equine Admissions Counselor University of Findlay Findlay, Ohio

Tim Engel

Error Resolution Specialist Hudson Insurance Group Overland Park, Kansas

Christopher Jorgensen

Cattle Foreman Deseret Ranches, AgReserves Inc. Alcova, Wyoming

Tara Leytham

Agricultural Instructors BCLUW High School Conrad, Iowa

Megan McWherter

CSR & Vet Tech Sahuaro Vista Veterinary Clinic Tucson, Arizona

Elizabeth Moore

Inside and Outside Sales Representative **Brand Marketing Specialist** Agri Beef Boise, Idaho







Top: Megan McWherter and Megan Espinda (both '21) compare notes during the August 2018 Animal Health Campus Session.

Center: Tim Engel, Don Brainard and David Ashford (all '21) working on homework during the August 2018 Animal Health Campus Session.

Bottom Left: Paul Casady, Executive in Residence, K-State Olathe, talks about the Master of Agribusiness Animal Health cohort at the October 2018 Animal Health Industry Insights Trends and Career Pathways Seminar.

Class of 2021 on the map





students

Kansans

states

Manhattan Cohort

Jacob Buehler

District Sales Manager Lewis Hybrids Paola, Kansas

Allicia Clark

District Sales Manager Lewis Hybrids Greentop, Missouri

Crystal Dau

Field Agronomist Pioneer, Corteva Agriscience Dekalb, Illinois

Scott Feldt

Risk Coordinator Irsik and Doll Feed Services Cimarron, Kansas

Dorothy Herrman

Food Scientist J.R. Simplot Co Nampa, Idaho

Cassie Kniebel

Program Manager Beef Cattle Institute at Kansas State University Manhattan, Kansas

Rita Ramirez

Production Specialist Batory Foods Niles, Illinois

Scott Schadler

Manager, Production System Field Research John Deere Company Des Moines, Iowa

Sara Segovia

Jr. Project Lead **Compass Minerals** Overland Park, Kansas

Kellen Suntken

Seeds Production Research Syngenta Urbandale, Iowa

Jonathon Trowbridge

Senior Director of Risk Management TradeStation Group Plantation, Florida

Ethan Taube

Southbound Freight Trading and Logistics Consolidated Grain and Barge Mandeville, Louisiana

Jacob Wagner

Customer Operations Representative Cargill Ag-Horizons Lenexa, Kansas

Christian Wilson

Agronomist Frahm Farmland Colby, Kansas

Elle Wood

Credit Officer Northwest Farm Credit Services Bozeman, Montana

Xuyan Sunny Zhang

Program Manager U.S. Soybean Export Council Beijing, China

Dr. Geoff Cockfield speaks to students about Australian and local water management in Manhattan.



13,973

miles were traveled by the class of 2021 **Manhattan Cohort** to get to campus

6,557

the number of miles **Xuyan Sunny Zhang** traveled from Beijing

the least number of miles traveled to get to campus





Jonathon Trowbridge '21 and students listen to Dr. Cockfield's lecture.



Dr. Art Barnaby gives a lecture to students focused on the recent farm bill passed by Congress.

Students and Alumni







Kurt David ('00) was promoted to president and COO of Eagle Communications.

Joel Karlin ('01) presented the Grain and Protein Meal Outlook at Fresno State's 37th Annual Agribusiness Management Conference in November.

Jared Brown ('08) is now a Global Channels Sales Leader — Agriculture for The Weather Company.

Ivan Mills ('10) is now a Quality Systems Manager at Blue Prairie Brands, Inc.

Deb Frey ('11) started a new position as a Data Specialist at The Job Store Staffing.

Tyrell Fickenscher ('12) was selected to participate in Nebraska Farm Bureau's 2019 Leadership Academy.

Amber Hanna ('12) accepted an Account Executive position at Shamrock Solutions.

Seth Harrison ('13) is now a Precision and Conservation Specialist at Pheasants Forever.

Tene Mouphtaou Toure ('13) and her husband welcomed twin boys, Chesner Musa and Cohen Yamusa, on July 16th.

Beth Holmes ('13) was promoted to VP of Strategy and Operations at Calyxt.

Tara Deines ('14) and her husband welcomed their first son, Jackson Oliver, on January 23rd. Jackson was 8 lbs. and 13 oz.

Ryan Bennett ('15) was hired as the Executive Director of the U.S. Roundtable for Sustainable Poultry and Eggs and the International Poultry Welfare Alliance.

Matt Krueger ('15) and his wife welcomed the birth of their third son, Connor Wayne, on July 9th.

Andrew Garr ('17) and his wife announce the birth of their daughter, Riley Grace, on October 1st. Andrew also accepted a new Plant Manager position of Ohio mills for Ardent Mills. He and his family will be relocated to Columbus, OH.

Ednah Ngoma Kasanda (*17) is now a Principal Consultant for Precise Research Solutions

John Sachse ('17) was selected to participate in Kansas Farm Bureau's Leadership program for 2019

Erin Clem ('18) started a new position as Senior Director Quality Assurance at Diamond Foods, Inc.

R.J. Layher ('19) is now a Policy Advisor to Risk Management Agency Administrator Martin Barbre.

Brittni Lamoreux ('19) and her husband welcomed their first child, Hadley Maeson, on September 21st. She was 9 lbs. and 4 oz.

Marvin Mbaso ('19) was promoted to Senior Business Development Officer at the Export Development Fund. He also married Romance Ngulube on October 14th.

Lindsey Wilson ('19) is now a Practice Manager for Prairie Summit Veterinary Services in Cody, WY.

JD Hunsaker ('20) accepted a Financial Analyst position with Rabo Agrifinance.

Pierce Randall ('20) received the 2018 Young Alumni Award from SUNY Cobleskill.

Pierce Randall ('20) introduces keynote speaker, Linda Salem, at the 2019 January Campus Session banquet reception.

Tracy Brunner ('02) at the National Cattlemen's Beef Association (NCBA) show in New Orleans in February. Brunner is a former president of NCBA.

R.J. Layher, Kaitlyn O'Neal and Tyler Rumbold (all '19) visit the MAB booth at Commodity Classic in Orlando.

Andrea Harding and Melissa Patrick discussing class work at the 2017 October Campus Session in Olathe. Both students are in the Animal Health Cohort, Class of 2019.



Thesis Completions



Jen (Lincoln) Askew, '19

Habits for Animal Feed Differ from that of Other Generations?



Nate Avedian, '18

Fresh Produce Retail — Analysis of Vertical Coordination and Procurement Models in the Central California Lemon Supply Chain



Jordan Hanslovan, '16

Exploration of Strategic Expansion of Hanslovan Livestock Co.



Corey Van Otegham, '17

Family Farm Succession:
A Case Study of ABC Dairy



Sydney Van Ravenswaay, '18

Examining the Relationship between Channel Availability and Sales Volume in the Atlanta Sports Nutrition Market



Matt Chen, '16

Cost Analysis on Shipping Bananas via Ocean Vessel Versus Truck

Thesis projects can be found at http://krex.k-state.edu or by logging into the MAB Community Page on Canvas.

March 9-12

Grain Elevator & Processing Society (GEAPS) in New Orleans

March 17-22

Manhattan Cohort Campus Session at K-State

March 29

Last day to complete Graduation Application in KSIS

April 2

Farmher Grow Spring Tour, Manhattan, KS

April 5

Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) in Overland Park, KS

April 6

K-State and K-State Olathe Open House

April 19

Examination ballot and final copy of thesis due to be Spring '19 graduate

April 29-May 1

Petfood Forum in Kansas City

May 17

Spring Commencement at Bramlage Coliseum in Manhattan, KS

June 1

Application deadline for Animal Health cohort

June 1-5

Institute of Food Technology (IFT) in New Orleans

August 4-9

Animal Health Cohort Campus Session at Olathe, KS

September 1-10

Interior Bus Tour of Alaska



Alumni Spotlight: The Haugers

MAB's first married couple to complete the program: Jarah and Mike Hauger (*14).

Jarah Hauger

The agriculture industry became a part of Jarah Hauger's everyday life at a young age on a row-crop farm in East Central Kansas. She earned her Bachelor's in Agricultural Economics in '09, and finished her Master of Agribusiness in '14. While completing her undergrad, she held various legislative internships in Topeka and Washington, D.C., then went to work full-time with John Deere after graduation.

At John Deere, she's been in the marketing rep program, Global Training Organization, Dealer Development, and currently works in Public Affairs. In her role she manages state affairs in Kansas, Missouri, Arkansas, Tennessee, Mississippi and Alabama.

When legislative issues arise in these states, Jarah represents John Deere's interest and works with other manufacturers, industry groups and lobbyists to ensure that adverse legislation doesn't affect their ability to do business with dealers and customers.

"Precision Ag and the Data Revolution are enabling technology to make our customers and equipment more efficient. However, the lack of broadband and wireless infrastructure in rural areas limits how much precision ag technology can be used in some areas of the country," she said.

When it came time to complete her thesis, Jarah was working within Dealer Development in Large Ag Strategy. While working on a project to help dealers create a successful customer contact center they



could implement at their dealerships, she realized, "Call Centers are not the forte of many ag equipment dealerships, so I was gathering lots of information from dealers who were doing it to try and create some best practices."

Jarah's thesis focused on learning more about what dealers were currently doing and the barriers to implementation.

"I surveyed our dealers, and learned that very few of them had what would fall under the definition of a customer contact center, and the top barrier was lack of budget and resources," Jarah said. "From this data, I knew what tools and resources would be most helpful to dealers as they considered implementing more advanced methods of customer support."

Jarah believes she gained a much broader understanding of the agriculture industry from the MAB coursework and her classmates. Her thesis also provided valuable and tangible information she could apply to her job.

"The MAB provides a perspective that I wouldn't have gotten in the workplace. It's given me tools to make me more valuable to my employer," Jarah said. "It was a very well-run program in the fact that it catered to working professionals. Mary and Deborah were immensely helpful and ensured we had everything we needed to be successful."

Mike Hauger

Growing up on a small farm in Southwestern Minnesota, Mike was exposed to agriculture at a very young age. Mike attended Southeast Community College in Milford, Nebraska, where he majored in a John Deere dealership training program. After completing his associate's degree, he transferred to the University of Nebraska where he received his Bachelor's degree in Mechanized Systems Management. Upon graduation, he was offered a job at John Deere in customer support with various rolls at the John Deere Seeding Group, Harvester Works and Des Moines Works.

Currently, Mike is a Senior Marketing Representative at John Deere in the Parts Marketing group in Olathe, Kansas. He works with dealers across America and Canada to develop marketing programs, retail incentives and tactics to increase sales of John Deere Harvesting parts.

Mike believes the biggest potential issue agriculture is currently facing is the oversupply of commodities. "Farmers have done a great job at increasing production through technology and farming practices," he said. "The positive is that demand keeps increasing every year for commodities."

As he approached the thesis, Mike inherited some land in South Dakota, and was forced to analyze his best options for managing the land. His thesis, *What to do with a gift of farm land?*, was inspired by his inheritance as he dug deeper

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into cash rent, share crop and custom farming.

He looked at the potential long-term profits while also taking into consideration any risk factors.

"While custom farming had the greatest profit potential in the long run it also came with the most risk. Cash rent was the least risky option," he said.

Mike's thorough work helped land his thesis in an article in the *Journal of American Society of Farm Managers and Rural Appraisers*.

Mike credits the MAB program and faculty for providing him with valuable knowledge. He believes the classes that focused on logistics and econometrics have been most beneficial in his career as he regularly estimates the price of used farm equipment.

"A huge benefit of the program is that everything is agricultural based," Mike said. "It's been a great networking resource to connect with ag industry professionals across the U.S."

Mike and Jarah were engaged coming into the program, then later got married before graduating. Currently they live in the KC Metro are, where their family resides. They have two future Wildcats (or Huskers): Jefferson, who turned 3 in September, and Joycelyn who turned 1 in October.

Completing the program together

Q: Why did you both decide to pursue the MAB program? Was it a mutual decision or did one have to convince the other?

A: I had several people I worked with that were in the program that spoke highly of it, so when Mike mentioned he was considering it, I jumped on board. We were at an ideal place in our lives to devote the time necessary to the program. I also knew it would be much easier if the person I spent the majority of my free time with was also devoting his time to the same thing. — Jarah

Q: What was it like going through the program together? Do you think it made the program easier/less stressful?

A: It was easier to go through the program together. It allowed us to work on homework together and bounce ideas off each other. We also could remind each other when homework was due! It made the whole experience less stressful because we weren't as tempted to more fun things in our free time. —Jarah and Mike

Q: Did you work on homework together? Or try to work with others in your class?

A: We worked a lot together but also bounced ideas off classmates. It was also helpful to have 5 others in our class that were John Deere colleagues that we could just instant message. When given the chance to do group projects, we took the opportunity to split up and work on different things. —Jarah and Mike



Class of 2014 at the Spring Commencement Ceremony. Jarah and Mike Hauger are pictured far left.

We're now offering an Animal Health Management Certificate



The aim of this certificate program is to provide a series of courses and experiences that will help equip animal health professionals make better economic decisions for their company or practice. With economic and companion animal agriculture specific management tools, we can help equip them to lead and manage organizations in the animal health sector more efficiently. See the curriculum overview below, featuring the 20 credit hours needed to earn the certificate.

The increasing complexity of the global animal health industry has created the need for additional training for employees and management. Critical issues include:

- the redefinition of animal health
- pharmaceutical impact in food supplies
- the breadth of species included in animal health
- · veterinary epidemics
- · consolidation of companies

- increasing regulation
- "downstream customer" influence
- · workforce diversification
- competition for resources in human and animal markets



Top left: Guests of the Animal Health Insight event connect in between sessions. The event was held in October 2018 at Olathe.

Bottom left: Marvin Mbaso ('19) at the 2017 Olathe Animal Health Cohort Campus Session.

Curriculum Overview:

- AGEC 713 Agribusiness Financial Management
- AAI 840 Regulatory Aspects of Drug and Vaccine Development in the Animal Health Industry
- AGEC 700 Applied Agribusiness Economics
- AGEC 780 Economic Issues in the Global Animal Health Industry
- MANGT 820 Managing Organizational Behavior
- AGEC 735 Sales and Marketing in the Animal Health Industry
- AGEC 890 Advanced Food and Agribusiness Strategy

20 total hours

Find more information at mab.k-state.edu/ahcertificate



Tour Interior Alaska with MAB and KFB!



Tentative Itinerary:

September 1— Arrive Anchorage

September 2 — Kenai Fjords National Park

September 3 – Alaska State Fair

September 4 – Matanuska Valley Farms

September 5 - Palmer/Wasilla to Talkeetna

September 6 — Talkeetna to Denali

September 7 — Denali National Park

September 8 - Denali National Park Entrance to Fairbanks

September 9 – Fairbanks / Delta Junction

September 10 — Depart Fairbanks for home

Trip Highlights:

- Hosted by Master of Agribusiness program and Kansas Farm Bureau
- September 1-10, 2019
- Interior farm and ag tour of Alaska
- Stops in Anchorage, Kenai Fjords National Park, Wasilla, Denali National Park and Fairbanks
- Visit the Alaskan state fair and learn about unique Alaskan agriculture including Birch syrup and Alaskan Musk Ox
- Gain a better perspective of global agriculture

Estimated Trip Rates:

Double Occupancy Rate (2 person room):

Single = \$4,200*

Couple = \$8,400*

Single Occupancy Rate (single room) = \$5,500*

\$250 per person previous traveler discount available

*The final cost will depend on the number of travelers

Cost Breakdown:

Registration fee covers logistics, hotel rooms (3-4 star where available), entrance to the Alaska State Fair, baggage handling service, luxury dome rail service, and most meals.

Additional Expenses:

- Airfare
- Additional meals, souvenirs & personal items
- Optional trip insurance

This trip has limited space and will sell out. For more information or to reserve your spot, contact Mary Bowen at mjbowen@ksu.edu or 785-532-4435.

The next International farm and ag tour hosted by the MAB program will be to Iceland, Norway and Sweden in late August/early September 2020.

More information and pricing will be available soon.

Both trips are open to anyone interested in participating - MAB affiliation is not required.