

Summary of Research, Scholarly and Creative Activities, and Discovery (RSCAD) Strengths by College

Strengths are listed in the order as they were submitted by each college. For more detail, please see the College RSCAD Reports (<http://www.k-state.edu/2025/initiatives/rscad/>).

College of Agriculture & Agricultural Experiment Station	
Beef Cattle	Insects/other pests
Wheat	Water Resources
Sorghum	Food and Feed Safety
Swine	

College of Architecture, Planning and Design	
Virtual Interactive Design Education	Breaking the Barriers: Aging in Place
Great Plains Center for Urban Watersheds (GPCUW): Joining sustainable water science, planning and management	Promoting Health through the Built Environment
Performance and Innovation in Building Envelopes	Investigating Place Using Digital Toolset

College of Arts and Sciences	
Genomics/Lipidomics/Proteomics	Cognitive/ human factors/social psychology
Insect biochemistry/molecular biology/vector biology	I/O psychology
Grassland ecology	Security studies
Evolutionary biology	Rural history/ sociology
Infectious disease/innate immunity	Public administration
Bio-organic synthesis, theory and spectroscopy	Strategic and crisis communications
Nanomaterial and supramolecular synthesis	Communications and community development
Atomic, molecular, optical physics	Economics
Condensed, soft, and biological matter physics	Linguistics and second language acquisition
High energy physics/cosmology	Cultural studies
Science/mathematics education research	Digital humanities and arts
Energy sector research	Children's literature
Water quality and quantity	Philosophy
GIS, remote sensing, and geospatial modeling	Contemporary crafts
Novel statistical modeling	Photography and printmaking
Mirror symmetry and tropical geometry	Community/ social engagement art
Big Data analysis and applied mathematics	School of Music, Theatre, and Dance
Behavioral neuroscience	

College of Business Administration	
Corporate governance and citizenship	Strategic selling
Entrepreneurship and technological innovation and commercialization	Accounting education
Business analytics	Investments and Market Microstructure
Customer insights	

College of Education	
Research and practice in teacher preparation for English language learners.	Academic Advising
Research in mathematics education and practice in mathematics teacher education.	School Leadership

College of Engineering	
Water	Transportation
Big Data/High Performance Computing	Environmental Applications
Cybersecurity	Sensors, Systems and Networks
Nuclear Engineering	Biomedical Applications
Advanced Materials, Manufacturing and Processes	STEM Education
Energy and Power	

College of Human Ecology	
Aging – Lifespan Development	Food Safety
Consumer Behavior	Food, Global Health, and Security
Healthy Relationships	Obesity

K-State Salina – Technology and Aviation	
Unmanned Aircraft System Airspace and Vehicle System Integration	Bulk Solids
Innovative Manufacturing	Unmanned Aircraft Systems Photogrammetry
Unmanned Aircraft System Airworthiness Certification	Unmanned Systems Manufacturing, Controls, Systems Integration

College of Veterinary Medicine	
Infectious Disease – Select Agent Research	Vector-Borne Diseases and Vector Biology
Viral Pathogenesis of Endemic and Emerging Diseases	Nanomedicine
Bacterial Pathogenesis of Endemic and Emerging Diseases	Comparative Pharmacology
Vaccine Development and Field Efficacy	Stem Cell Biotechnology and Physiology, Stem Cells and Regenerative Medicine
Mechanisms, Management and Consequences of Antimicrobial Resistance	Physiology of the Inner Ear, Animal Models of Human Deafness
Antiviral Development	Cell and Molecular Mechanisms Regulating Physiological Function
Diagnostic Assay Development, Validation and Application	Cardiovascular and Respiratory Physiology
Epidemiology and Ecology of Disease	Mechanisms Regulating Central Sympathetic Neural Circuitry
Therapeutic Interventions for Disease	Fundamental Mechanisms of Cancer, Cancer Therapeutics and Cancer Stem Cells
Immune Mechanisms in Health and Disease	