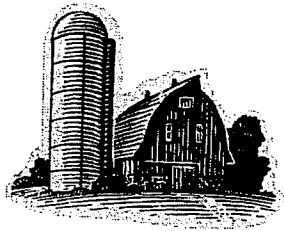


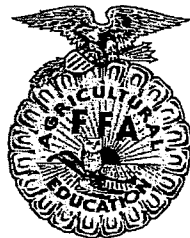
Roland-Story High School



Department Program of Studies

Agricultural Education

**Roland-Story High School
1009 Story Street
Story City, Ia. 50248
(515) 733-4329**



Part 1: Program Standards with Benchmarks:

Cluster Standard: The student will demonstrate competence in the application of leadership, personal growth and career success skills necessary for a chosen profession while effectively contributing to society.

- CS.01: Premier Leadership: Acquire the skills necessary to positively influence others.

Agribusiness Standard: The student will demonstrate competence in the application of principles and techniques for the development and management of agribusiness systems.

- ABS.03: Utilize record keeping to accomplish AFNR business objectives while complying with laws and regulations.
- ABS.04: Apply generally accepted accounting principles and skills to manage cash budgets, credit budgets and credit for AFNR businesses.
- ABS.06: Use industry-accepted marketing principles to accomplish AFNR business objectives.

Animal Systems Standard: The student will demonstrate competence in the application of scientific principles and practices to the production and management of animals.

- AS.03: Provide for the proper health care of animals.
- AS.04: Apply principles of animal nutrition to ensure the proper growth, development, reproduction and economic production of animals.
- AS.05: Evaluate and select animals based on scientific principles of animal production.
- AS.07: Select animal facilities and equipment that provide for the safe and efficient production, housing and handling of animals.

Environmental Service Systems Standard: The student will demonstrate competence in the application of scientific principles and techniques to the management of environmental service systems.

- ESS.03: Apply scientific principles to environmental service systems.
- ESS.04: Operate environmental service systems to manage a facility environment.

Food Products and Processing Systems Standard: The student will demonstrate competence in the application of scientific principles, practices and techniques in the processing, storage and development of food products.

- FPP.01: Examine components of the food industry and historical development of food products and processing.
- FPP.02: Apply safety principles, recommended equipment and facility management techniques to the food products and processing industry.
- FPP.04: Select and process food products for storage, distribution and consumption.

Natural Resource Systems Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the management of natural resources.

- NRS.01: Explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments.

Plant Systems Content Standard: The student will demonstrate competence in the application of scientific principles and techniques to the production and management of plants.

- PS.01: Apply knowledge of plant classification, plant anatomy and plant physiology to the production and management of plants.
- PST.01: Use physical science principles and engineering applications with power, structural and technical systems to solve problems and improve performance.
- PST.04: Plan, build and maintain agricultural structures.

AFNR Career Cluster – LifeKnowledge® and Cluster Skills Content Standards:
The student will demonstrate competence in the application of leadership skill sets and to work collaboratively to complete team building challenges.

- CS.05. Performance Element: Systems: Identify how key organizational structures and processes affect organizational performance and the quality of products and services.
- CS.08. Performance Element: Technical Skills: Use tools, equipment, machinery and technology appropriate to work within areas related to AFNR.
- CS.01. Performance Element: Premier Leadership: Acquire the skills necessary to positively influence others.
- CS.03. Performance Element: Career Success: Demonstrate those qualities, attributes and skills necessary to succeed in, or further prepare for, a chosen career while effectively contributing to society.

Part 2: List of Critical Program Competencies

- 1. Work productively with a group or independently.**
- 2. Identify financial concepts associated with production and profit.**
- 3. *Explain the importance of a balanced ration for animals.***
- 4. Explain the basic process of photosynthesis and its importance to life on Earth.**
- 5. Explore various career interests/options.**
- 6. *Explain the male and female reproductive organs of the major animal species.***
- 7. Identify and explain environmental and safety concerns about the food supply.**
- 8. Maintain production and agribusiness records.**
- 9. *Explain methods of determining animal health and disorders.***
- 10. *Identify land uses, capability factors and land capability classes.***
- 11. *Identify the components, the types and the functions of plant roots.***
- 12. Budget resources, as applied to the AFNR business, including capital, human, financial and time.**
- 13. *Identify the components and the functions of plant stems.***
- 14. Identify and demonstrate safe use and maintenance of tools.**
- 15. *Describe interactions between groundwater and surface water.***
- 16. *Describe climatic factors that influence natural resources.***
- 17. Explain techniques and procedures for the safe handling of food products.**
- 18. Identify renewable and nonrenewable energy sources and pathways of delivery.**
- 19. *Explain how modern equipment and handling facilities enhance the safe and economic production of animals.***

20. *Discuss leaf morphology and the functions of leaves.*
21. *Explain the importance of biosecurity to the animal industry.*
22. *Identify types of pollution and distinguish between point source and nonpoint source pollution.*

Part 3: Course Sequence

Drawing board for student interested in Agri-Business.

Career Pathway		Agriculture, Food and Natural Resources								
Program:		Agribusiness					linked with:		DMACC	
Year	English/ Language Arts	Math	Science	Social Studies	Fine Arts	Foreign Language	PE. / Health	Agricultural Education	Electives	
Roland-Story High School	9th	LA I	Alg	Int. Science		Intro to Art	Spanish 1	PE	Ag 1	Gen Bus
	Grade	LA I	Alg	Int. Science		Intro to Art	Spanish 1	Health/Wellness	Vet Tech	Bus Law
	10th	LA II	Alg 2	Biology	Am History	Band	Spanish 2	PE	Ag Tech	Comp Apps I
	Grade	LA II	Alg 2	Biology	Am History	Vocal	Spanish 2	PE	Ag Shop	Comp Apps II
	11th	Comm. Principles	Geometry	Chemistry	World History			PE	Ag Mech	
	Grade	Essay/Research	Geometry	Chemistry	World History			PE	Food Science	
12th	Senior Eng.		Meteorology	Govt.			PE			
Grade	Senior Eng.		Horticulture	Govt.			PE	Ag. Bus.		
Semesters										
DMACC	13.1	AGS-113 Survey of the Animal	AGA-114 Prin. of Agronomy	AGA-154 Fund. of Soil Science	AGA 157 Soil Fertility	AGC-314 Ag Leadership	ENG-105 Composition I			
	13.2	AGA 284 Pesticide Application	AGB 235 Intro to Agricultural Markets	AGB 302 Agribusiness Internship I	AGS-319 Animal Nutrition	SPC 101 Fund. of Oral Comm.				
	Sum- mer	AGA 381 Crop Scouting	AGP 333 Precision Farming	AGB 331 Agribusiness Management	BUS 165 Business Law I					
	14.1	AGA 222 Grain Management	AGB 101 Agricultural Economics	AGS 242 Animal Health	AGT 120 Agricultural App of Biotech	MAT 141 Finite Math				
	14.2	AGB 312 Agribusiness Internship II	AGB 440 Agricultural Niche	AGA 129 Intro to Sustainable Agriculture	AGB 330 Farm Business Management	ACC 131 Principles of Accounting I				

Part 4: Stakeholder Distribution Description

Roland-Story Community School District:

1. Program of Study course sequences will be included in the district's student handbook and be made available when setting up in 8th grade students "I have a Plan".
2. The district's course handbook will include descriptions of seamless transition opportunities from secondary to postsecondary education.
3. Concurrent-enrollment opportunities relative to respective Programs of Study will be addressed in the district's high school course handbook.
4. 8th graders will review various Programs of Study as part the career exploration process. The goal will be to help students identify career pathway(s) they have interest and/or aptitude to pursue in high school, as agreed upon by students and parents.
5. Middle school and high school guidance counselors will provide an overview of the value of the various Programs of Study to middle school and high school students.
6. Completion of the secondary portion of respective Programs of Study, by specific students, will be designated at high school graduation.
7. Program of Study course sequences will be included in the 8th grade course preview presentation program.

Part 5: Technical Skills Attainment Assessments

TSA assessments are being jointly developed by the members of the secondary and post-secondary institutions. They are being developed as state-wide assessments tools based upon competencies related to the identified program State Standards.

A student at Roland-Story is considered proficient if they demonstrate competency in or at 80% of the identified competencies.

TSA Assessments:

1. PQA test
2. Agricultural Business/DMACC AGB 331
3. NC FFA District Soils Evaluation CDE
4. NC FFA District Ag Business CDE
5. State FFA Food Science CDE

Current Instructor Name:	Brad Taylor
School District:	Roland-Story Community Schools
Service Area:	Agriculture
Career Cluster:	Agri-Business Management
CIP Title:	Agriculture
CIP Code:	0101000000
Units to complete:	3.0
Unites offered:	6.0
Proficiency Level:	80%
Postsecondary Linking:	Agriculture Business Management, DMACC

Part 6: Annual Review of Programs of Study

Continuous Improvement Process Steps

1. Roland-Story Community School District will annually review the components of the Agriculture, Food and Natural Resources (AFNR)/Agriculture Education Program of Study.
2. Roland-Story program instructor(s) will meet annually with postsecondary faculty to review the components of the AFNR/Agriculture Education Program of Study.
3. Annually, components of the AFNR/Agriculture Education Program of Study will be reviewed, updated and improved.
4. Annually, technical skill assessments will be reviewed and improved to ensure fidelity in assessing students' skills.
5. Standards, competencies and assessments will be reviewed and new assessments may be added to the AFNR/Agriculture Education Program of Study.
6. The advisory committee will do a self assessment of the agriculture program to ensure the program is meeting the needs of the clients.

XI Region

**Program of Study (POS), Critical Competency, and Technical Skill Assessment
Agreement/Approval Document**

Between

Roland-Story (Secondary District)

and

DMACC (Postsecondary Institution)

I. Statement of Purpose

The purpose of this document is to provide evidence of agreement between the specified secondary program, the secondary career and technical advisory committee (or regional committee), and the "linking" postsecondary program in the development of a career and technical education (CTE) program of study. These three entities agree that the specified secondary program area offers a program of study which includes academic and technical skill development for all students and meets the requirements of Iowa Code, Carl Perkins IV and the Iowa Perkins State Plan.

In addition, the signatures on this document certify that all entities agree that the identified program competencies and technical skill assessment(s) prepare students to transition into postsecondary education and the world of work.

II. Program of Study Information

A. Secondary Program & Cluster: Agriculture

(Include the secondary course titles and sequence on the drawing board)

B. Linking Post-Secondary Program: Agri-Business Management

(Include list of postsecondary program course titles on the drawing board)

III. Attach Evidence: (Refer to Iowa Department of Education Program of Study (POS) Guidance, page 2)

IV. Program of Study Signature Approvals:

1) **Critical Competency Postsecondary Approval:**
Dandy Gabriel Director 5/14/15
Postsecondary Representative Name and Title Approval Date

2) **Technical Skill Assessment(s) Postsecondary Approval:**
Dandy Gabriel Director 5/14/15
Postsecondary Representative Name and Title Approval Date

Additional Program of Study Document Signatures:

Bruce Taylor Agriculture Instructor 5/14/15
Secondary Instructor, Program Area Date

Richard Schreier Richard Schreier, Advisory Committee Chair 5/14/15
Advisory Committee Chair/Representative Date

St. Schlett 5-14-15
Perkins Coordinator/Facilitator/Representative Date