New Jersey Department of Agriculture Office of Agricultural Education

New Jersey CASE Grant FY 17 Announcement and Application Description of NJ CASE Grant Opportunity

The FY 17 NJ Department of Agriculture CASE Grants are <u>competitive</u>. Grants (up to \$10,000) will be awarded to schools implementing a CASE program of study and meeting 100% of NJ CASE eligibility requirements. Grant funds must be utilized beginning the fall of 2017. Grant funding priorities for implementation include: 1) establishing new CASE Programs, 2) completing a CASE sequence of courses/pathway, 3) initiating new pathways and 4) supplementing previously funded CASE courses.

See the diagram below or visit: http://www.case4learning.org/index.php/curriculum/case-pathways



The NJ CASE grants are subject to state funding. Accumulated points on applications will determine recipients for grant awards. All FY 17 NJ CASE grant funds awarded to local schools must be used to implement one or more of the available CASE courses, in a sequence, leading to a CASE program of study. NJ CASE grant funds shall be used only for the purchase of items listed in the CASE Purchase Manual (which includes upgrades to class/lab facilities) and/or for teacher professional development at a 2017 CASE Institute (CI).

http://www.case4learning.org/index.php/usingcasepurchasemanuals http://www.case4learning.org/index.php/professional-development/case-institute/case-institute-offerings

Grant submission rules:

- 1. Applicants must submit one complete original hard copy of the grant application. (**Do not submit pages 1-5 of this document**).
- Applications must be received in the Office of Agricultural Education (2nd floor) at the New Jersey Department of Agriculture, 369 So. Warren Street, PO Box 330, Trenton, NJ 08625, by 4 pm on Thursday, February 23th, 2017.
- No facsimiles or email copies will be accepted.
- 4. Applications must arrive in one package; additional documentation will not be accepted after the grant application is received. (Post submission edits will NOT be accepted!)

Please note: Using the US Postal Service will not guarantee timely submission of the grant application. If grant funds are important to success of your program, it is suggested that the application be delivered in person. Applications arriving after 4 pm will not be accepted.

CASE Program Information

The CASE Model (excerpts below from www.case4learning.org)

The Curriculum for Agricultural Science Education $(CASE^{\mathbb{T}})$ project develops a structured sequence of agriculture courses and serves as a model for elevating the rigor and relevance of agricultural education.

CASE is much more than a curriculum. In fact, CASE is a system of instructional support for the classroom teacher like no other resource in agricultural education today. The CASE model provides four major areas of support to promote solid classroom instruction using rigorous and relevant lessons while enhancing student learning.

The four areas of teacher support include curriculum, professional development, assessment, and certification. Each area contributes to the validity of CASE instructional materials by ensuring that teachers are properly equipped and trained and student learning is clearly accountable.

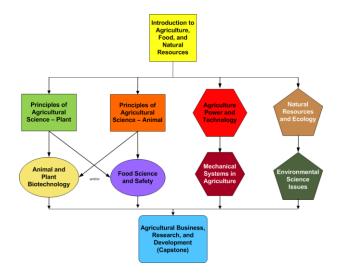


The CASE Learning Environment

The activity-, project-, and problem-based approach of CASE requires a well-equipped learning environment with internet access. The ideal CASE facilities include space or areas for science laboratories, computer-based learning, and student workspace. All materials are written for a class size of 20 students. For larger or smaller classes, please plan accordingly.

See the CASE Learning Environment link on the Purchase Manual tab of the CASE website. http://www.case4learning.org/index.php/usingcasepurchasemanuals

Curriculum



Page 2

CASE courses provide the teacher a comprehensive package of all teaching resources required to instruct lessons. Each lesson plan contains teacher notes, PowerPoint® presentations, student activity instructions, and assessments. Lessons are designed to provide everything the teacher needs at a click of the mouse. The philosophy behind a CASE lesson is to empower the student by providing students an active role in their learning rather than learning being a product of teacher-led instruction.

Professional Development

A CASE Institute (CI) is professional development that provides teachers training for the instruction related to a specific CASE course. Up to 80 hours of intense professional development at a CASE Institute is required for each CASE course certification. **Successful completion of the CASE Institute is required for this New Jersey CASE funding**. For more information about CIs, see 'Attending a CASE Institute' at:

http://www.case4learning.org/index.php/professional-development/case-institute/case-institute-offerings

Assessment

Assessment Philosophy and Strategies

http://www.case4learning.org/index.php/assessment-learning-reflections/philosophy-and-strategies
See link for materials built into the curriculum and open testing databases, national end-of-course exams, and pathway exit tools available on CASE Online. Subscriptions to CASE Online is are purchased for all NJ schools NJDA, OAE in cooperation with NJDOE.

Certification

The value of CASE is the overall certification of students, teachers, and programs. To ensure that high quality instructional experiences are provided to students the way they are intended by design, certification of teachers and programs is essential. Ensuring that teachers and programs are providing CASE instruction as designed is one measure of consistency for CASE learning goals across programs.

Programs that follow the CASE certification process and meet the certification requirements will provide their students a quality education and the maximum recognition for their efforts. Students may be eligible for college credit based upon meeting the certification requirements. As the program develops it is anticipated that CASE certification will influence student admission and scholarship potential for post-secondary education.

2017 CASE

CASE courses consist of a full year of lessons (150 days of 45 minute lessons) that utilize activity-, project-, and problem-based learning set in an inquiry-based, student-directed environment. CASE increases the rigor and relevance of agriculture subject matter and enhances core academic areas including science, mathematics, and English. CASE provides the teacher everything needed to facilitate classroom instruction except equipment and supplies, which can be provided by this grant or other funding. See the available courses below.



Introduction to Agriculture, Food, & Natural Resources (AFNR)

This is the first course for all CASE course sequences. It introduces students to leadership, science, plants, animals, natural resources, and agricultural mechanics using the hands-on approach of activities, projects_τ and problems. Students also develop a career portfolio as they investigate their personal interests and careers in Agriscience. Foundational courses such as Principles of Agricultural Science – Animal (ASA), Principles of Agricultural Science – Plant (ASP), Natural Resources and Ecology (NRE) or Agriculture Power and Technology (APT) are the next courses in the sequence followed by specialization courses Animal and Plant Biotechnology (APB), Food Science and Safety (FSS), Mechanical Systems in Agriculture (MSA) and Environmental Science Issues (ESI). The final (fourth) course in all pathways is the (capstone) Agriculture Research and Development (ARD) course.



-Principles of Agricultural Science – Animal (ASA)

This course follows the introductory course (AFNR) and is a foundational level or second course (sophomore) in the animal systems sequence in which students explore the world of animal agriculture and develop a management guide for an animal of their choice. Areas of study include history and domestication, handling and behavior, anatomy and physiology, nutrition, reproduction, genetics, health, selection, and marketing. The next level course (specialization) is either APB or FSS with the fourth level course (capstone) being ARD.



Principles of Agricultural Science – Plant (ASP)

This course follows the introductory course (AFNR) and is a foundational level or second course (sophomore) in the plant systems sequence in which the students study the production of plants while developing a grower's handbook. Areas of study include soils, hydroponics, plant anatomy and physiology, taxonomy, growing environments, sexual reproduction, asexual reproduction, insects and diseases, and production and marketing. The next level course (specialization) is either APB or FSS with the fourth level course (capstone) being ARD.



Animal and Plant Biotechnology – (APB)

This is a third level or specialization (junior) course where students study animal and plant biotechnology concepts while utilizing a laboratory notebook. It follows AFNR, and ASA or ASP. Research and experimental design will be highlighted as students develop and conduct industry appropriate investigations. Areas of study include micro pipetting, bacterial cultures and ttransformations, Electrophoresis, and polymerase chain reaction. The final course in the pathway is the fourth level (capstone) ARD course.

Natural Resources and Ecology (NRE)

This course follows the introductory course (AFNR) and is a foundational level or second (sophomore) course in the natural resources pathway sequence in which the students explore natural resources and ecology. Areas of study include but are not limited to: conservation, preservation, land issues, water, air, energy, forestry, and more. The next level course (specialization) is Environmental Science Issues (ESI)- with the fourth level course (capstone) being ARD.

Food Science and Safety (FSS)

This is a third (junior) level or specialization (junior) course where students study food science and safety concepts. It follows AFNR, and ASA or ASP. Areas of study include but are not limited to: food chemistry, microbiology, enzymes, preservation, fermentation, food borne illnesses, hazard analysis and critical control point (HACCP), human health and nutrition, regulation, animal and plant products, food labeling and packaging, marketing, processing, consumer concerns and preferences, careers in food science and safety and feeding the world. The final course in the pathway is the fourth level (capstone) ARD course.

Agriculture Power and Technology (APT)

Agricultural Power and Technology is a foundation level course or second (sophomore) course in the Ag Mechanics pathway that will teach students the fundamentals of agricultural mechanics. Students are immersed in inquiry-based exercises filled with activities, projects, and problems that focus upon the form and function of material, machines and tools used in agriculture. Students will apply technical skills while becoming competent in the process that is used to operate, repair, engineer and design agricultural tools and equipment. The next level course (specialization) is Mechanical Systems in Agriculture (MSA) with the fourth level course (capstone) being ARD.

Mechanical Systems in Agriculture (MSA)

Mechanical Systems in Agriculture is the specialization-level, third level, course designed to provide rigorous applications in the agricultural engineering field. Throughout the course, students apply technical skill while becoming competent in the process used to operate, repair, engineer and design agricultural tools and equipment. The final course in the pathway is the fourth level (capstone) ARD course.

Environmental Science Issues (ESI)

The CASE Environmental Science Issues course is a specialization-level course (junior) that enables students to research, analyze, and propose sustainable solutions to environmental issues.

Students are immersed in inquiry-based exercises filled with activities, projects, and problems, which develop data acquisition and analysis techniques, critical thinking and evaluation abilities related to environmental issues, as well as independent research and problem solving.

The final course in the pathway is the fourth level (capstone) ARD course.

Agricultural Research and Development (ARD)

Agricultural Research and Development is the final/fourth level or capstone course for all students in all pathways. ARD is designed to culminate students' experiences in agriculture, based on the pathway of study they pursued. Woven throughout the course are projects and problems based in practical applications and designed to develop and improve employability skills of students. Students will further enhance critical thinking and teamwork skills as they expand on content knowledge from previous CASE courses. Students would have taken the introductory (AFNR), a foundational *course in (ASA, ASP, NRE or APT) followed by a specialization course (APB, FSS, MSA or ESI) before taking the capstone (ARD) course.*

New Jersey Department of Agriculture Issue date: 1.13.17 Office of Agricultural Education Final Report date: 8.30.17

New Jersey CASE Grant FY 17 Application

Title Page – Section I

Section A:			
Title: New Jersey CASE Grant			
	and Natural Resources – Off	fice of Agricultural Education (OA	E)
Section B:			
SCHOOL DISTRICT	SC	CHOOL NAME	
ADDRESS			
CITY STATE		ZIP	
PROJECT DIRECTOR: (print)	(sign)		
TELEPHONE #: ()	FAX #: <u>(</u>)	
E-MAIL:			
BUSINESS ADMINISTRATOR: (print)			
TELEPHONE #: ()			
DUBATIONO	EDDOLECT, A:11 2017 TC	D. J. 20, 2017	
DURATION O	F PROJECT: April 1, 2017 TC	7: June 30, 2017	
MAXIMUM TARGETED A	MOUNT OF FUNDS PER	R Grantee: Up to \$10,000.00	
GRANT AND TOTAL AMOUNT	CUDIECT TO THE AVA	II ADII TV OE STATE EIIND	INC
GRANT AND TOTAL AMOUNT	SUBJECT TO THE AVA	ILABILIT OF STATE FUND	ING
APPLICATION CERTIFICATION: To the I further certify the following are enclosed and complete: * ASSOCIATED FORMS, BUDGET DETAIL AND SUMM	ONE ORIGINAL COPY INCLUDING	G TITLE PAGE, APPLICATION NARRAT	and correct.
Signature of Ag, Food and Nat. Res./CASE Teacher	Print Name	Date	
Signature of District Chief School Administrator	Print Name	Date	
*FAILURE TO INCLUDE REQUIRED APP	LICATION COMPONENTS	CONSTITUTES A VIOLATION O	F THE
GRANT AND WILL RESULT IN THE APPI			<u> </u>
APPLICATIONS MUST BE DELIVER	ED/SENT TO:		
Nancy J. Trivette, State Program Leader,	_	vv14vvm0	
Office of Agricultural Education, New Jo Room 204, P.O. Box 330, 369 South Wa	• •	uiture	
Trenton, NJ 08625-0330	iicii St.		
11011011, 110 00020 0000			
ORIGINAL HARD COPY MUST BE R		Thursday, February 23, 2017	
NO FACSIMILE OR EMAIL SUBMISSIONS WILL BE NO LATE APPLICATIONS WILL BE ACCEPTED REGAL		ŒD.	
NO ADDITIONAL MATERIALS CAN BE SUBMITTED A NO APPLICATIONS WILL BE ACCEPTED FROM SCHO			

Section II

Section III (50 pts.) CASE Eligibility/Requirements and Scoring

Eligibility/Requirements:

- Applicants must be approved by NJDOE to conduct AFNR program/program of study. See website: http://www.nj.gov/education/cte/pubvoc.htm
 - *If applicants are applying for AFNR program approval with NJDOE, please provide a copy of the program/program of study application.
- CASE Agriculture teacher(s) of grant funded schools will be available to attend at least one New Jersey CASE meeting, if scheduled, with NJDA, Office of Ag Education staff.
- School district is able to order all CASE equipment/supply items before June 30, 2017 and have all CASE supplies/equipment available for the first day of school in 2017-18. (This strict requirement of the NJ CASE grant directly impacts efficient and effective delivery of the CASE Program.)
- A. (10 pts.) A CASE School District Agreement (SDA) form to participate in a CASE Institute (signed by appropriate school personnel) has been submitted to Miranda Chaplin, CASE Operations/Outreach Director.
 miranda.chaplin@case4learning.org
 A copy of CASE SDA is required.
 Please attach to this grant application for each course for which funding is requested.

A signed form reflects: 1) district administration support for CASE teacher professional development, 2) course sequencing leading to a program of study, and 3) support and ability to obtain CASE supplies and equipment appropriate for the CASE learning environment. The attached link includes the CASE School District Agreement:

http://www.case4learning.org/index.php/professional-development/case-institute/case-institute-offerings (the link for the agreement is in the second paragraph from the top of the web page)

Please note: The teacher must satisfactorily complete the CASE Institute and submit their CASE course portfolio checklist signed by the CASE Lead Teacher to NJDA, OAE with the <u>final report</u> to indicate they are fully certified to teach the CASE course funded by this grant. <u>If a teacher did not attend or did not successfully complete the CI, then the entire grant must be refunded.</u>

- B. (20 pts.) Active Advisory Committee documentation:
 - a. Attach a copy of Agricultural Education Advisory Committee minutes from at least one meeting (after September 1, 2016) with recommendations to implement a rigorous program of study utilizing CASE. Program of Study Framework:

 http://www.nj.gov/education/cte/study/components.pdf
 - b. Minutes must contain a list of current advisory committee members AND a list of those attending the each meeting.
- C.

 (15 pts.) Attach articulation agreements (AA) (copies) (for 2016-17 school year) with one or more post-secondary institutions. AAs must be signed by chief administrators of each institution (secondary and post-secondary). Grantees without current articulation agreements will not receive available points.
- D. (5 pts.) Funds (Professional Development and/or Equipment and Supplies)
 - a. Professional development: Funds are requested to attend a CASE Institute. A certified Agriculture teacher from the applying school must be registered to attend a 2017 CASE Institute. <u>Please attach a copy of registration confirmation by CASE</u>. (If CI registration is dependent on this grant, input the words "Pending FY17 funding" in Comment Box during online registration with CASE.) Grantees and/or non-grantees are responsible for managing this registration. AND/OR
 - b. **Equipment/Supplies**: If funds are requested for equipment and supplies for previously certified course(s), please provide proof that the teacher has successfully completed a CASE Institute and is certified for course that funding is being requested. (CI certificate of Completion is acceptable.)

Section IV (30 pts.) Narrative

Brief narrative (1 page or less) including local objectives for participating in the CASE program including:

- Explain how the STEM based CASE program grant funds will be used. Please include local, state and global agriculture, food and natural resource industry supply and demand data.
- ii. Explain how CASE will be promoted/marketed to new audiences of students that are not currently served.
- iii. Discuss use (or intended use) of CASE Online assessment and plans for use of the Student version. (CASE Online tools are made available to all schools of CASE certified teachers by NJDA, OAE in cooperation with NJDE).

Section V (10 pts.) Budget Detail

Please use one of the following two options to develop and provide budget details for CASE supplies and equipment. If professional development is being requested, please provide details regarding transportation and related costs in addition to CASE registration fees.

a) CASE website Purchase Manual (PM) Vendor tabs

Please use a separate PM tab **for each course**. Please name each PM tab by course: http://www.case4learning.org/index.php/usingcasepurchasemanuals

Example: If funding is being requested for ASP and APB, then you will submit a Vernier Tab for each course.

b) <u>OR</u> use a spreadsheet that includes the following for each item: Course name - 1) Vendor Name; 2) Item Name/#; 3) Quantity; 4) Description; 5) Item Price; 6) Total Price; 7)Total Cost of All Materials and Supplies

Points will be deducted if all information is not provided; please review carefully!

Section VI (10 pts.) Budget Summary

Budget Summary Form - Please summarize (total) all budget detail into three (3) categories: 1) CASE equipment/supplies, 2) CASE Professional Development and 3) other

Grant Submission Checklist and Requirements (Please DO NOT submit pages 1- 6 of grant announcement at tome of application.) Submit Section I – VI in the order indicated below

- 1. **Section I** Grant Title Page
- 2. Section II CASE course selection
- 3. **Section III** CASE Grant Eligibility –Items A- D (50 points) including the following attachments
 - i. Copy of signed **CASE School District Agreement** form
 - a. Please note: If applying for professional development funding, satisfactory completion of the CASE Institute (CI) in 2017 is a grant requirement. The CI Scope and Sequence/Portfolio (provided at the CI) must be signed by a CASE Lead Teacher for each CASE Institute attended and submitted with the final NJDA CASE Grant report.
 - ii. Copy of CI registration confirmation from CASE
 - iii. Copies of **Agricultural Education Advisory Committee**minutes including a complete list of Agriculture Advisory
 Committee members names and titles and those in attendance
 - iv. Copies of articulation agreement(s)
 - v. Copies of previously completed CASE certifications
- 4. **Section IV Narrative** (1 page or less) (30 points)
- Section V Expenditure detail (Purchase Manual Tabs or spreadsheet) (10 points)
- 6. **Section VI Budget Summary** Form/Final Report Form (10 points)

NJ DEPT. OF AGRICULTURE, OFFICE OF AGRICULTURAL EDUCATION CASE GRANT FY17

BUDGET SUMMARY FORM

1 BUDGET CATEGORY		FUNDIN	FUNDING SOURCES 2 3		
		FY 17 NJ CASE Requested Funds		Potential matching or other funds supporting local CASE program	
A.	CASE Class/Lab Equipment/Supplies Summary/total only	\$	\$	\$	
В.	CASE INSTITUTE	\$	\$	5	
C.	Other (please specify)	\$	\$	8	
	TOTAL	\$	\$	5	

CASE Teacher (print):	
CASE Teacher Signature:	Date:
Building Principal (print):	
Building Principal signature:	Date:
Business Administrator (print):	
Business Administrator signature:	Date:

FINAL REPORT COVER PAGE FY17 NJ CASE GRANT FINAL REPORT Due: August 30, 2017

do not submit this page with application in February

(Please submit this cover page when submitting the final report)

CASE School:					
We are submitting t	ho following informati	ion in fulfillment of f	ho Final		

We are submitting the following information in fulfillment of the Final Report requirements for the FY 17 CASE grant

- 1) Final Report Cover page
- 1) 2) Final Report Narrative brief narrative (not to exceed one page):
 - Describe any extenuating circumstances expending FY 17 CASE grant funds.
 - Discuss sequence of courses offered in the program of study: provide detail about the number of CASE students served in each CASE course and numbers served with articulation agreements.
 - c. Discuss how CASE Online Student version is being used.
 - d. Discuss results of CASE Online Assessments.
 - e. Other information deemed relevant to the success of implementation of CASE.
- 3) <u>CASE Institute Scope and Sequence/Portfolio</u> copy signed by CASE Lead Teacher
- 4) Articulation agreement(s) copies with post-secondary institution(s)
- 5) Budget Detail Forms: reflect all expenditures FY 17 New Jersey CASE grant
- 6) <u>Budget Summary Final Report Form</u>: Submit (p.12), summarizing grant funds received/spent

CASE Teacher (print):	
CASE Teacher Signature:	Date:
Principal (print):	
Principal Signature:	Date:
Business Administrator (print):	
Business Administrator Signature: Submit to: Nancy J. Trivette, State Agricult Department of Agriculture, by August 30, 20 nancy.trivette@ag.state.nj.us	ural Education Program Leader, New Jersey 017 <i>in one pdf document</i> by email to:
For State Office Use: Final Program Fiscal Report Review/Approval:	
Nancy J. Trivette State Agricultural Education Program Leader Office of Agricultural Education	Date

NJ DEPT. OF AGRICULTURE, OFFICE OF AGRICULTURAL EDUCATION CASE GRANT FY17

BUDGET SUMMARY FINAL REPORT FORM

School/District:	

		FU N	D	ING SOUR	CES
	1	2		3	4
	BUDGET CATEGORY	Expenditures FY 17 NJ CASE		Matching or other funds supporting local CASE program	Total (column 2+3) (Final Expenditures)
A.	CASE Class/Lab Equipment/Supplies Summary/total only	\$		\$	\$
В.	CASE INSTITUTE	\$		\$	\$
C.	Other (please specify)	\$		\$	\$
	TOTAL	\$		\$	\$

CASE Teacher (print):	
CASE Teacher Signature:	Date:
Building Principal (print):	
Building Principal signature:	Date:
Business Administrator (print):	
Business Administrator signature:	Date: