



SMALL GAS ENGINES

Course Description

Small Gas Engines (SGE) introduces students to career opportunities in outdoor power equipment, diesel and agricultural equipment maintenance.

SGE introduces students to technical applications to mechanical systems, using small gas engines as the instructional tool. Students practice technical skills, including measurements, troubleshooting, documenting an engine teardown and assembly, completing work/repair orders, and reading a service manual.

This modular course can be paired with other curricula by supplementing a standard small engines or ag mechanics curriculum.



Equipping teachers

- Specialization level
- Modular course
- Inquiry and project based instructional practices
- BriefCASE professional development

Engaging students

- ✓ Disassemble and reassemble an engine
- ✓ Learn life skills for troubleshooting engines
- ✓ Technical skills prepare students for home ownership
- ✓ Careers in diesel, outdoor power equipment, and agricultural equipment maintenance

Instructional Units

- Expectations
- Diagnostics
- Safe Setting
- Equipment Safety
- Engine Operation
- Machine Assembly

Flexibility & Adaptability

CASE provides a comprehensive professional development experience, in addition to a work-life balance so teachers can best educate their students. Course work is adaptable and customizable based on teacher preference to fit all geographies and communities.

“ Small Gas Engines is designed to be teacher and student friendly. It takes students to a complete engine to one completely torn apart - they get it back together and running again with step-by-step instructions and APPs to guide them along the way. ”

- Grace Godfrey, Wyoming



scan or visit case4learning.org

This course is correlated to G-W
Small Gas Engines text



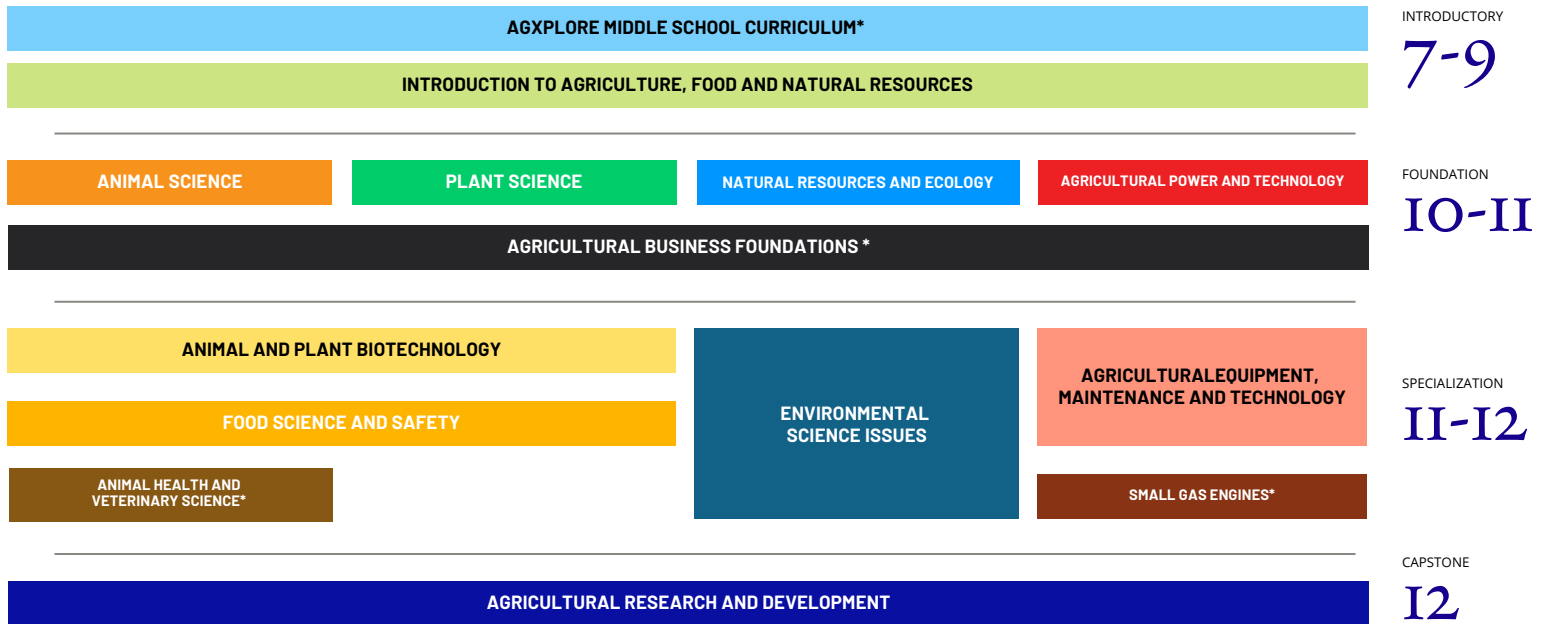
Equipping Teachers Engaging Students



Purposeful Curriculum

CASE has sequenced courses at four levels that enhance the delivery of agricultural education through inquiry-based learning and technical skills.

Courses and Instruction Levels



Mission

To design industry-leading, inquiry-based curriculum and teacher education to create lifelong learners and prepare students for the future of agriculture.

Standards Aligned

CASE develops curriculum with industry feedback and aligns courses to National Agriculture, Food, & Natural Resources and Career & Technical Education standards.

Professional Development and Lifetime Certification

CASE 4 Learning enhances agricultural education with inquiry and project-based learning to prepare the next generation of the agricultural workforce through teacher certification and professional development.

CASE Institutes

Professional development events preparing teachers to implement full-year CASE courses. Institutes provide teachers the content and skills needed to use CASE curricula in their classroom. CASE Institutes range from five to eight days in a hybrid, in-person, or virtual format.

BriefCASEs *

Professional development for shortened CASE courses or modules. BriefCASEs range from one to three days.

Grants & Scholarships

Corporate sponsors and donors throughout the agriculture industry support CASE teachers through funding material implementation grants and professional development scholarships. Teachers are eligible to apply in the fall to fund their programs in the following year.

Certification

Once the teacher is certified by attending a CASE Institute or BriefCASE, they have lifetime access. There are no subscriptions or renewal fees!



In-Person

Teachers attend the entire training at the host site.



Virtual

Teachers attend the entire training online. Teachers will receive materials via mail, and are responsible for their lab space.



Hybrid

Teachers receive training both virtually and in-person based on the course.