

TEACHING, LEARNING AND INNOVATION SUB-COMMITTEE MEETING

Regular Meeting

Griswold Board of Education

Assistant Superintendent's Office

211 Slater Avenue

Griswold, CT 06351

Thursday, January 22nd

5:30 pm

1. Call to Order
2. Review, Discussion, and Possible Action to Name a Committee Chair
3. Review, Discussion, and Possible New Course Proposal for Griswold High School
 - A. Advanced Drone Technology
 - B. Sculpture 1
4. Update on Curriculum Development
5. Future Meeting Dates
6. Anything that May Properly Come before the Committee
7. Next Meeting: TBD
8. Adjournment

Curriculum Design/Modification/Approval

Proposals for program modification and the addition of entirely new programs, courses, activities or services shall be systematically analyzed at the building, central office, or Board level, depending on the nature of the proposal, to ensure that all foreseeable implications have been considered.

I. BASIC DATA

A. Title: The title should describe the new or modified program, course, activity or service in an engaging and comprehensive way.

Advanced Drone Technology

B. Resume: Summarize the proposal in no more than 5 - 10 typewritten lines. This summary statement will be reproduced in the regular report submitted to the Board of Education. It will also be used as the basis for press releases on curriculum development in the school system.

This course is a continuation of the Introductory Drone Technology class and is designed to prepare students for the FAA Part 107 Remote Pilot certification exam. Students will engage in advanced flight operations, mission planning, aerial mapping, data collection, and real-world flight simulations. The course will emphasize applied aeronautical knowledge, flight safety, FAA regulations, and career pathways in commercial drone operations. The course is intended as a one-semester (½ year) capstone to the introductory course. Students will need to be 16 years old and pass Intro. to Drone Technology to be eligible for this course. (due to the age restriction the FAA places on individuals sitting for the certification exam)

C. Submission Date: Indicate the date of original submission by the author.

January 1, 2026

D. Author: Identify the author(s).

Andrew Meislitzer, James Rand

E. Requested Implementation Date: State the date when you would like to see this proposal implemented.

start of 2026-27 school year

F. Supporting Data: Clarify the data that supports the addition or modification of the course. What does interest survey data show? What research supports this change? How does this align with current trends and student needs?

Enrollment and student feedback from the current Basic Drone Technology class demonstrate strong interest in continuing with a second-level, advanced course. Many students have expressed the desire to

pursue FAA licensing and advanced piloting skills. Workforce data from the FAA and U.S. Bureau of Labor Statistics project a sustained increase in demand for certified drone pilots in commercial, agricultural, environmental, and emergency response industries. This course directly addresses those emerging workforce needs by providing students with the knowledge and preparation necessary for the FAA Part 107 certification exam. Minimum age of 16 years old required to take the FAA Part 107 certification exam.

II. GENERAL INFORMATION/BACKGROUND:

Give a brief rationale for the proposal, including its relationship to past, current and future developments in the school system and the target audience. If necessary, clarify any prerequisites or special considerations regarding feeder programs.

This advanced course builds directly upon the foundational skills developed in Basic Drone Technology. It is designed for students who have successfully completed the introductory course or have prior experience in drone operation. Students will refine manual and automated flight techniques, perform mapping and imaging missions, and analyze aerial data. The class targets students in grades 10–12 who are interested in aviation, technology, or engineering fields and wish to pursue certification as FAA-licensed drone pilots.

III. OBJECTIVES:

State the purpose(s) of the new or modified program, course, activity or service. What is it that the program, course, activity or service seeks to help students achieve? Clarify the course outcomes.

The primary objective of this course is to equip students with the advanced technical knowledge, safety awareness, and regulatory understanding required to become licensed FAA Part 107 commercial drone pilots. By the end of the course, students will:

- Demonstrate mastery of advanced flight maneuvers and mission control.
- Understand and apply FAA Part 107 rules, regulations, and airspace classifications.
- Conduct professional flight operations for mapping, photography, inspection, and data collection.
- Analyze aerial imagery and geospatial data for real-world applications.
- Prepare for and successfully complete a practice FAA Part 107 exam.

IV. SCOPE AND SUBSTANCE:

This section should deal in considerable detail with the subject matter, content or substance of the proposal. How would the course be described in the program of studies? What topics, units or factual material will be used to meet the course objectives? Is there a standard textbook, or will multiple materials be used? Will technological tools be used? What kinds of activities or services will be offered?

Program of Studies Description:

Advanced Drone Technology will expand on the knowledge gained in the introductory course by focusing on advanced piloting skills, FAA licensing requirements, mission planning, and aerial data analysis. Students will work in teams to design and execute complex flight operations such as

surveying, photogrammetry, and emergency response simulations. Instruction will include:

- FAA Part 107 exam content (airspace, weather, operations, regulations).
- Advanced flight control and automation.
- Mission-based drone operations and safety procedures.
- Use of mapping and imaging software.
- Aerial data processing and analysis.

Students will utilize drones and flight simulation platforms to gain real-world experience in mission planning and data management. Texts and digital resources from FAA and other professional sources will supplement instruction.

V. METHODS:

This section should discuss the strategy(ies) that will be used in teaching the proposed course or carrying out the program. Will large group, small group and independent study approaches be used? Will laboratory experiences constitute most of the time allocated? How much structure is going to be given to students in the teaching/learning process? Finally, state the ideal minimum and maximum class size, activity group or student-to-staff ratio.

This course will follow a blended instructional model including classroom theory, simulator training, and outdoor flight labs. Instruction will begin with FAA regulation content and safety training, followed by hands-on missions and practice testing.

- **Teaching Structure:** Mix of direct instruction, guided labs, and student-led missions.
- **Group Format:** Small groups (2–3 students per drone) for flight practice.
- **Ideal Class Size:** 12–14 students to maintain safety and instructor oversight.
Students will maintain individual flight logs, complete data analysis projects, and take a comprehensive FAA Part 107 practice exam as part of their final assessment.

VI. IMPACT DATA: *(To be completed in consultation with building administrator)*

A. **Impact on Individualization of Instruction:** What specific improvements will this proposal make in terms of student learning and motivation? For example, if the proposal enables a student to pursue individual interests in greater depth, say so.

This course will follow a blended instructional model including classroom theory, simulator training, and outdoor flight labs. Instruction will begin with FAA regulation content and safety training, followed by hands-on missions and practice testing.

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B. **Impact on Other Courses/Programs Within the Department:** What impact - positive or negative - will this proposal have upon other courses/programs offered within the subject area in your

The Advanced Drone Technology course strengthens the school's advanced technology and STEM offerings, complementing pathways in Cybersecurity, Gaming Concepts, and Engineering. It provides students with a natural progression from the introductory drone course and aligns with other high-tech electives that emphasize innovation and career readiness. The course may slightly reduce enrollment in other electives due to scheduling overlap but increases the program's prestige and post-secondary alignment. to be run, or will need to run in limited capacity, as we will not have the bodies to teach these courses.

Offering this course, along with others soon to be proposed, has the potential to increase enrollment into our school instead of losing sending-town students to other districts.

The course requires instruction from a teacher holding an FAA Part 107 Remote Pilot Certificate. By the time this course will be offered both James Rand and Andrew Meislitzner will hold this certification and will serve as the instructors based on scheduling need. No additional staffing will be required initially. Future expansion may warrant additional certified personnel to accommodate student demand.

The advanced course can be implemented with minimal financial impact. Drone equipment and maintenance will be supported by Perkins funding and Career Pathways grants. All instructional materials, including FAA study guides and online training resources, are free or provided through the

FAA. Ongoing costs will include routine maintenance, replacement parts, and potential software subscriptions, estimated at \$500–\$1,000 annually at most. No additional textbooks or licenses will be required.

Curriculum Design/Modification/Approval

Proposals for program modification and the addition of entirely new programs, courses, activities or services shall be systematically analyzed at the building, central office, or Board level, depending on the nature of the proposal, to ensure that all foreseeable implications have been considered.

I. BASIC DATA

A. Title: The title should describe the new or modified program, course, activity or service in an engaging and comprehensive way.

Sculpture I

B. Resume: Summarize the proposal in no more than 5 - 10 typewritten lines. This summary statement will be reproduced in the regular report submitted to the Board of Education. It will also be used as the basis for press releases on curriculum development in the school system.

Sculpture I is a hands-on, introductory visual arts course focused on three-dimensional art-making processes. Students will explore the elements and principles of design as they apply to sculpture, working with a variety of materials including, wire, paper, cardboard, wood, and found objects. Through individual and collaborative projects, students will learn basic sculptural techniques such as additive, subtractive, assemblage, and modeling. Emphasis will be placed on creativity, craftsmanship, problem-solving, and self-expression.

C. Submission Date: Indicate the date of original submission by the author.

1/13/2026

D. Author: Identify the author(s).

Erin & Jessie Wraichette

E. Requested Implementation Date: State the date when you would like to see this proposal implemented.

Fall 2026/2027

F. Supporting Data: Clarify the data that supports the addition or modification of the course. What does interest survey data show? What research supports this change? How does this align with current trends and student needs?

Currently, the art courses that are offered at GHS are drawing 1&2, painting 1&2 and ceramics 1&2. In reviewing the art programs at high schools in the surrounding towns, 4 out of the 6 reviewed offered Sculpture I as an elective. To round out the art program at GHS, and to make it more competitive with surrounding high schools, offering Sculpture as an elective provides students an opportunity to explore and create art in a way that is more tactile, inquiry-driven and more experiential. Offering a sculpture class aligns with current trends and student needs in the following manner:

- **Maker movement and STEAM:** Schools are expanding hands-on, design-build learning; Sculpture I fits this shift by offering structured, safe tool use and iterative prototyping.
- **Career/college readiness:** Portfolios increasingly require breadth (2D + 3D). Sculpture I provides portfolio-quality 3D work and aligns with AP 3D Art & Design expectations.
- **Inclusivity and engagement:** Tactile, multimodal learning meets diverse needs (UDL), improving attendance and motivation in studio blocks.
- **Community relevance:** Public art, sustainability, and upcycling align with student interests and service-learning goals (assemblage with found objects, material literacy).

An interest survey put out to the school in late Fall received 100 responses from students in grades 9-11. Of the 100 who had a chance to answer, 58 of those students indicated they were interested in one or more of the newly proposed classes listed; Studio Arts, Sculpture and a revival of Metal & Jewelry.

II. GENERAL INFORMATION/BACKGROUND:

Give a brief rationale for the proposal, including its relationship to past, current and future developments in the school system and the target audience. If necessary, clarify any prerequisites or special considerations regarding feeder programs.

This course is being proposed as a way to build on the school's 2D foundations (drawing, painting) and existing 3D experience in ceramics by expanding into broader three-dimensional art forms (assemblage, wire, wood, plaster, mixed media). The course aligns with current standards emphasizing creative problem-solving, design thinking, and safe tool use; it supports inclusive, hands-on learning for varied learners. This course can help prepare students for pathways in fine arts, design, architecture, theater tech, and CTE fabrication by developing spatial reasoning, material literacy, and portfolio-ready 3D work.

III. OBJECTIVES:

State the purpose(s) of the new or modified program, course, activity or service. What is it that the program, course, activity or service seeks to help students achieve? Clarify the course outcomes.

The purpose of Sculpture I is to introduce students to the fundamentals of three-dimensional art, encouraging creative thinking, spatial awareness, and hands-on skill development. This course fosters an appreciation for sculptural forms across cultures and time periods while providing students with the tools and confidence to express their ideas through the medium of sculpture.

Course Objectives

By the end of the course, students will be able to:

1. Identify and apply the elements of art and principles of design in three-dimensional forms.
2. Demonstrate foundational sculptural techniques including carving, modeling, assembling, and constructing.
3. Safely and effectively use a variety of tools and materials common in sculptural processes.
4. Analyze and discuss works of sculpture, both their own and others', using appropriate art vocabulary.
5. Make connections between sculpture and art history, world cultures, and contemporary practice.
6. Develop personal expression and creativity through the creation of original sculptural works.
7. Engage in peer and self-critique to reflect on the artistic process and outcomes.

IV. SCOPE AND SUBSTANCE:

This section should deal in considerable detail with the subject matter, content or substance of the proposal. How would the course be described in the program of studies? What topics, units or factual material will be used to meet the course objectives? Is there a standard textbook, or will multiple materials be used? Will technological tools be used? What kinds of activities or services will be offered?

Course description:

Sculpture I is a hands-on, introductory visual arts course where students create three-dimensional works using clay, wire, paper, cardboard, wood, and found objects. Through projects that apply the elements and principles of design, you will learn additive, subtractive, assemblage, and modeling techniques while building creativity, craftsmanship, problem-solving, and self-expression.

Unit Outline:

Unit 1: Launch + 3D Foundations

- Objectives: Studio safety, tool handling, elements/principles in 3D, vocab.
- Techniques: Sketching maquettes, armatures, scoring/adhesion tests.
- Product: Small “form study” using paper/cardstock.

Unit 2: Paper and Cardboard Sculpture

- Objectives: Translate 2D to 3D, stability and balance, joinery.
- Techniques: Slotting, tabs, laminating, curved forms, gussets.
- Product: Abstract relief or freestanding form; quick critique on structure.

Unit 3: Wire Sculpture

- Objectives: Line in space, gesture, proportion, armature building.
- Techniques: Bending, twisting, wrapping, gauge selection, attachments.
- Product: Figurative or animal gesture sculpture; optional mixed media base.

Unit 4: Assemblage with Wood and Found Objects (Part I)

- Objectives: Concept development, juxtaposition, found-object meaning.
- Techniques: Safe hand-tool use, adhesives, mechanical fasteners, layout.
- Product: Concept board + small study; emphasis on composition and theme.

Unit 5: Assemblage with Wood and Found Objects (Part II)

- Objectives: Craftsmanship, stability, finishing.
- Techniques: Sanding, simple cuts, pre-drilling, surface treatments (paint, stain).
- Product: Finished assemblage; artist statement draft.

Unit 6: Foam Carving

- Objectives: Subtractive thinking, volume and contour, surface refinement.
- Techniques: Cutting/carving tools, rasping, sealing/priming, coatings.
- Product: Stylized object or relief; explore texture vs. smooth finishes.

Unit 7: Choice Studio: Paper/Wire Hybrid or Foam + Assemblage Remix

- Objectives: Iterate and combine methods, personal voice.
- Techniques: Hybrid joinery, armatures within forms, finishing strategies.
- Product: Proposal → checkpoint critique → refined piece.

Unit 8: Optional Clay Module (if facilities available)

- Objectives: Modeling vs. carving, moisture management, form integrity.
- Techniques: Additive modeling, hollowing/venting, slip/score, basic surface.
- Product: Small modeled figure or relief tile; alternative: non-clay modeling compound if clay is not available.

Unit 9: Portfolio, Finish, and Exhibition

- Objectives: Presentation, reflection, visual literacy.
- Techniques: Surface touch-ups, mounting, photography, writing statements.
- Product: Mini-show or digital portfolio; final critique and self-assessment.

Ongoing (every block)

- Critiques: Pin-ups, peer feedback protocols.
- Art history/context: Quick spotlights linking materials to artists/cultures.
- Skills: Safety refreshers, tool checklists, cleanup routines.
- Assessment: Process checks, craftsmanship, design application, reflection.

Materials & Resources:

- Cardboard
- Wire
- Foam
- Wood scraps
- Found objects
- Paper
- Sketchbooks
- Various sculpting tools
- Video & teacher demonstrations, & paper guides for reference

Activities & Services:

- Weekly lectures and critiques
- Skill builder activities

V. METHODS:

This section should discuss the strategy(ies) that will be used in teaching the proposed course or carrying out the program. Will large group, small group and independent study approaches be used? Will laboratory experiences constitute most of the time allocated? How much structure is going to be given to students in the teaching/learning process? Finally, state the ideal minimum and maximum class size, activity group or student-to-staff ratio.

Instructional approaches

- **Large group:** Safety demos, material introductions, mini-lessons on design principles, and whole-class critiques.
- **Small group:** Rotating studio stations (e.g., joinery, armatures), peer-feedback circles, collaborative installations, and skill workshops.
- **Independent:** Individual project work time, sketching/maquettes, process journals, and self-paced refinements.
- About 65–75% of class time is hands-on making.
- Remaining 25–35% covers demos, planning, critiques, history/context spotlights, cleanup, and documentation.

Due to the nature of the class and using a variety of materials and tools, for safety purposes, the class size should not exceed 20 students.

VI. IMPACT DATA: *(To be completed in consultation with building administrator)*

A. **Impact on Individualization of Instruction:** What specific improvements will this proposal make in terms of student learning and motivation? For example, if the proposal enables a student to pursue individual interests in greater depth, say so.

Choice and personal relevance

- **Personal themes:** Students select subjects that matter to them (identity, community, nature). Example: A student passionate about skate culture designs

- a mixed-media assemblage using reclaimed deck wood and hardware.
- Material pathways: Learners choose from wood/found objects, wire, paper/cardboard, foam, or clay to match interest and comfort—reducing frustration and increasing ownership.

Self-paced, studio-style workflow

- Flexible timelines within checkpoints let students iterate at their own speed. Example: One student spends extra sessions perfecting wire gesture; another moves ahead to foam carving once ready.
- Mission Control–style check-ins (quick conferences) set individualized goals each week, keeping progress visible and attainable.

Differentiated scaffolds and supports

- Tiered mini-lessons: Beginners get step-by-step joinery demos; advanced students explore complex armatures or compound curves.
- UDL options: Alternate tools/materials (e.g., lighter wire gauges, pre-cut cardboard templates) ensure access while preserving rigor.

Feedback that builds skill and confidence

- Small-group critiques by interest/type (e.g., “assemblage circle”) provide targeted, actionable feedback students can immediately apply.
- Process journals and photo documentation help students track growth, boosting self-efficacy and reflective thinking.

Authentic products and public audience

- Portfolio-ready 3D pieces and a final showcase create purpose and pride. Example: A quiet student curates a mini-series of cardboard architectural forms, earning recognition and motivation to continue in advanced courses.

Cross-pathway relevance

- Links to design, engineering, theater tech, and CTE fabrication show real-world utility, increasing buy-in for diverse learners with different futures.

Expected improvements

- Increased engagement and attendance during studio blocks due to autonomy and material choice.
- Faster skill mastery from targeted mini-lessons and timely, interest-aligned feedback.
- Stronger creative confidence as students see personal ideas realized in multiple media.
- More equitable participation because students can select accessible tools and

pacing without lowering expectations.

In short: The proposal lets each student go deeper on what they care about, at a pace and pathway that fits, with supports calibrated to their skill level—leading to higher motivation, better craftsmanship, and meaningful portfolio pieces.

B. Impact on Other Courses/Programs Within the Department: What impact – positive or negative – will this proposal have upon other courses/programs offered within the subject area in your building? For example, will the addition of this course impact class sizes in other courses? Will it increase student engagement in your subject area? Would the offering improve the overall subject area program?

Positive impacts this course offering may have:

Student engagement and pathways

- Increases engagement via more hands-on, choice-driven media; boosts retention into upper-level art.
- Strengthens portfolios (3D breadth), improving AP Art/advanced course readiness.
- Creates bridges to Design/Engineering, and CTE fabrication—more cross-enrollment.

Curriculum coherence and progression

- Completes a balanced sequence: 2D (Drawing/Painting) + 3D (Ceramics/Sculpture).
- Clarifies pathways: Foundations/Drawing 1 → Sculpture I → Advanced 3D/Portfolio or AP 3D.
- Enhances standards alignment (3D design, material literacy, critique skills).

Resource sharing and facilities

- Shared tools and materials with Ceramics (clay, modeling tools) and Wood Tech (hand tools); coordinated purchasing can reduce per-student costs.

Equity and access

- Broader material options increase access for diverse learners.

Net effect on the program

- Overall improvement: **stronger, more coherent visual arts offering with higher engagement**, better retention, and clearer 3D pathways.

C. Impact on Scheduling and Staffing: Clarify how the course will be staffed. Is specific certification required to teach this course? How many staff are currently capable of offering the course? Would adoption of this proposal require staff adjustments, e.g., employing new staff, retraining veteran staff, assigning staff to minor fields of preparation, etc.? Explain.

The certification to teach this course would fall under the K-12 Art Education Certification (042) and the two teachers that are currently qualified under that certification are Erin & Jessie Wraichette (GHS). There is no anticipation of another staff member needed to be hired for this course.

VII. RESOURCES: *(To be completed in consultation with building administrator)*

A. Projected Initial Expenses:

- | | |
|------------------------|----------|
| a. Supplies | \$658.98 |
| b. Equipment | \$644.57 |
| c. Resource Literature | \$_____ |

Is Consultant Help Needed? If yes, complete the following:

- | | |
|-----------------------------|---------|
| d. Days | _____ |
| e. Cost per day | \$_____ |
| f. Total cost of consultant | \$_____ |

TOTAL COST ESTIMATE	\$1303.55
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B. Impact on Budget: Can this proposal be implemented within normal budget allocations for the school and program area? Will the professional development or training of staff be required, and if so, is there a cost outside or release time? Explain. If additional monies are needed, provide a budgetary breakdown below, showing line items and approximate costs for the first year of operation and for each of five successive years of operation.

The budget allocations for this course would fall under the art budget and have minimal overall impact. There would be no cost for professional development, but potentially release time to attend workshops or conferences. The initial year of start up would require a bit more due to the cost of tools. Once the tools are purchased, there would be minimal cost for the consumable materials.

Tools:

- Cardboard Cutter tools
 - Electric Scissors 35.99 x6= 215.94

- Manual cutters 15.98 x6= 95.88
- Utility Scissors 12.79 x6= 76.74
- Styrofoam cutters 45.99 x2= 91.98
- Styrofoam table top cutter 109.99
- Pliers 8.99 x6= 53.94

Materials:

- Styrofoam (various sizes) : 200.00
- Paper 18x24 various colors: 20.00 x5=100.00
- Wire (various gauges) 150.00
- Plaster 19.99 x6= 119.94
- Mod Podge 44.52 x2= 89.04

Total for start up=\$ 1303.55 (Amazon pricing)