# COURSE CATALOG

#### **INTRODUCTION**

MISSION AND VALUES	2
ACADEMIC PREPARATION CHART	6
SCHOOLWIDE PROFICIENCIES	7
A PATH FOR EVERY STUDENT	8

#### **COURSE CATALOG**

UNIFIED ARTS	10
Visual Arts	11
Design Technology	12
Drama	13
Music	13
Culinary Arts	14
HUMANITIES	16
English	17
Social Studies	19
World Languages	20
STEM	24
Mathematics	25
Science	27
Engineering and Technology	30
PHYSICAL EDUCATION AND HEALTH	32
Physical Education and Health	33
OUTDOOR LEARNING AND LEADERSHIP	34
Outdoor Education	35

#### ADDITIONAL PROGRAM INFORMATION

ADVANCED COURSEWORK AND EXTENDED LEARNING	38
TECHNICAL EDUCATION	40
STUDENT SUPPORT AND ACADEMIC SERVICES	41
SPECIAL EDUCATION	42
OUR TRADITIONS	43
CONTACT INFORMATION	44

304 Academy Road Thetford Center, VT 05075 802.785.4805 thetfordacademy.org

**f** @ThetfordAcademyVT

☑ @thetfordacademy

♥ @thetfordacademy

# **MISSION**

# THETFORD ACADEMY is an INDEPENDENT SCHOOL with a PUBLIC PURPOSE

Our mission is to celebrate the unique worth of all students, to nurture their strengths, and to challenge them to fulfill their potential.

Founded in 1819, the Academy serves as the secondary school for Thetford, Vermont and neighboring towns. Today, over 300 students in grades 7 through 12 come to TA from throughout the Upper Valley region of Vermont and New Hampshire, and from countries around the world, to join our close knit academic community.

Every day, Thetford Academy strives to fulfill our mission to celebrate the worth of all students, to nurture their strengths, and to challenge them to reach their potential. TA's award-winning faculty are recognized for their innovative teaching practices, dedication to their craft, and deep commitment to student learning.

Thetford is an inclusive school community. We work together to foster a culture of kindness, celebrate diversity, and ensure that all students feel safe, supported, and respected. At TA, students can be themselves.

# core values excellence

We set high expectations. We challenge all members of the schoo community to reach their highest potential.

# commitment

We value initiative, courage, and dedication. We take personal responsibility for the goals we set and work hard to achieve them.

# cooperation

We provide individuals with personalized support and guidance. We care about each other and the larger community.

caring

We work and learn together. We see teachers as coaches, students as team members, families as partners, and learning as practice and action.

diversity

We respect differences among people. We welcome the contribution of varied perspectives to a rich and flexible school culture.



#### Where do TA students go to college?

#### 2017–2022 Matriculation

Amherst College Boston University Bryn Mawr College Carleton College Castleton University Central Maine Community College Champlain College Clark University Colby-Sawyer College Community College of Philadelphia Community College of Vermont Cornell University Dalhousie University Dean College Denison University Eckerd College **Emerson College** Emmanuel College Endicott College Florida Atlantic University Franklin Pierce University George Washington University Hamilton College Hampshire College Ithaca College Lakes Region Community College Lewis & Clark College Loyola University Macalester College Massachusetts College of Art and Design McGill University Middlebury College Montana State University Mount Holyoke College New England Culinary Institute New York University Northern Vermont University Norwich University Old Dominion University Pace University Paul Smith's College of Arts and Science Plymouth State University Queen's University

Quinnipiac University Regis College Rensselaer Polytechnic Institute Rhode Island School of Design River Valley Community College Saint Joseph's College of Maine Saint Michael's College Salt Lake Community College Sarah Lawrence College Sienna College Seton Hall University Skidmore College Smith College Southern Maine Community College Southern New Hampshire University St. Lawrence University Stony Brook University Suffolk University Susquehanna University The Evergreen State College The University of Findlay Tulane University of Louisiana Unity College University of of Arizona University of Cincinnati University of Colorado Boulder University of Delaware University of Maine University of Maine at Farmington University of Maine at Fort Kent University of Massachusetts - Amherst University of New England University of New Hampshire University of Rhode Island University of San Francisco University of Southern Maine University of Utah University of Vermont University of Victoria University of Virginia University of Washington University of Wisconsin Vassar College

Vermont Technical College Washington County Community College Western New England University Westfield State University Whitman College Yale University

# ACADEMIC PREPARATION CHART

Thetford Academy's academic program is designed to provide students with a strong foundation in each of the core disciplines and the choice and flexibility to pursue individual goals and interests.

Subject	TA Graduation Requirements	4-Year College	Selective College
Arts	One credit: Visual Arts, Design Technology, Drama, Music, and select Culinary Arts courses	One credit: Visual Arts, Design Technology, Drama, Music, and select Culinary Arts courses	At least one credit depending on focus
English	Four credits: English 9, English 10, two credits of English electives	Four credits	Four or more credits; Honors courses preferred
Mathematics	Three credits	Three credits: Algebra I, Geometry, and Algebra II	Four or more credits: Algebra I, Geometry, and Algebra II Honors. Statistics, Precalculus, and Calculus recommended
Science	Three credits: Conceptual Physical Science, Biology, Science elective	Three credits: Conceptual Physical Science, Biology, Science elective	Four or more credits, including Conceptual Physical Science, Biology, Chemistry, Physics, and one additional course
Social Studies	Three credits: World Civilizations, US History, Modern World History	Three credits: World Civilizations, US History, Modern World History	Three credits: World Civilizations, US History, Modern World History
Physical Education and Health	Two credits, including PE (1.5 credit) and Health (½ credit)	Two credits, including PE (1.5 credit) and Health (½ credit)	Two credits, including PE (1.5 credit) and Health (½ credit)
World Languages	Not required	Most colleges require at least two high school credits of one language	Three or more high school credits of one language
Electives	Elective credits are required to reach 26 credits for graduation		
Total Credits	26 credits	26 credits	A minimum of 26 credits: Dual Enrollment credits recommended

# SCHOOLWIDE PROFICIENCIES

# In 2021, Thetford Academy adopted a set of transferable skills as part of the school's move toward proficiency-based teaching and learning.

The TA Transferable Skills transcend specific academic subjects and can be applied in a variety of contexts, supporting our students' growth and success during their time at TA and beyond. With support from advisors and teachers, students compile a portfolio that demonstrates their journey toward proficiency and masteryin these five important skills.



# A PATH FOR EVERY STUDENT



At Thetford Academy, we help each student create a unique academic course of study that reflects their interests and supports their future goals. The schedules below provide a peek at the wide range of possible educational pathways at TA.

Explore a pathway towards...

#### **Liberal Arts College**

9th	10th	11th	12th
English 9*	English 10*	Human Nature in Literature	Honors American Literature
Algebra I*	Algebra II Honors	Geometry*	Statistics
Conceptual Physical Science	Biology	Chemistry	Astronomy
World Civilizations	US History*	Modern World History*	Science Fiction
Spanish I	Spanish II	Spanish III	Instrumental Music
Physical Education	Health	Musical Theater	Chorus
Instrumental Music	Yoga	Physical Education	Fall Play
Design Technology	Ceramics	Instrumental	Dual Enrollment College Course: Intro to Philosophy

#### **College with a STEM Focus**

9th	10th	11th	12th
English 9	English 10	Creative Writing	Honors American Literature
Algebra II Honors	Geometry*	Calculus	Statistics
Biology	Pre-Calculus	Advanced Biology	Advanced Chemistry
World Civilizations*	Chemistry	Modern World History*	Physics
French I	US History*	Fuji film/Hypertherm Internship	Psychology
Physical Education	Design Technology II	French III	Timber Framing
Chorus	French II	Physical Education	Dual Enrollment College Course: Calculus II
Design Technology	Physical Education		
	Health		

#### Vermont's Early College Option

9th	10th	11th	12th
English 9*	English 10*	World Literature	Early College Program
Algebra I	Algebra II	Personal Finance	
Conceptual Physical Science*	Biology*	Chemistry	
World Civilizations	US History	Modern World History	
Musical	Geometry	Forestry	
Spanish II	Spanish III	Meal Planning	
Physical Education	Physical Education	Fall Play	
Aerobic Fitness	Astronomy	Yoga and Mindfullness	
	Health		

#### An Immersion in Outdoor Learning

9th	10th	11th	12th
English 9	English 10	English Composition	Literature of the Civil Rights Movement
Algebra I	Geometry	Algebra II	Personal Finance
Conceptual Physical Science	Biology	Modern World History	Forestry
World Civilizations	US History	Spanish III	Advanced Spanish
Musical	Health	Environmental Science and Outdoor Education	Fall Play
Spanish I	Physical Education		Physical Education
Physical Education	Musical		Dual Enrollment College Course: Wildlife Biology
Chorus	Spanish II		Chorus

#### Pursuing a Trade through a Regional Tech Center

9th	10th	11th	12th
English 9	English 10	English Composition	Literature of the Civil Rights Movement
Algebra I	Algebra II	Personal Finance	Forestry
Conceptual Physical Science*	Biology	Gender Studies	Chorus
World Civilizations	US History	Modern World History	Aerobic Fitness
Spanish I	Spanish II	Technical Program: Automotive	Meal Planning
Design Technology	Health		Technical Program: Automotive
Instrumental Music	Timber Framing		
Physical Education	Physical Education		



# UNIFIE ARTS

Thetford Academy offers a wide selection of courses in the visual, performing, and practical arts. An essential component of the TA curriculum, arts classes provide students a variety of unique opportunities to express their creativity.



Arts courses at TA focus on artistic expression, creative problem solving, critique and revision, collaboration, improvisation, and habits of work. Many classes culminate with a performance or presentation, providing student artists the opportunity to share their creativity and commitment to craft in a real world setting. One Arts credit is required for graduation.

### **Visual Arts**

The Visual Arts program at Thetford Academy focuses on visual literacy. How do color, contrast, value, shape, pattern, and quality of line affect the way one reacts to a visual presentation—either in life or on canvas? And in the studio, how does one employ elements and principles of design to portray creative ideas? Visual Arts students learn how art theory and methods are employed toward skillful creative expression. Students work both individually and collaboratively, learning the valuable disciplines of effective critique and collaboration, while also discovering and evolving their own style.

#### Middle School Art

Grade 7-8 | Arts Rotation

In grade 7, students create artwork in conjunction with an informal introduction to art theory, art materials, and foundational artistic skills. Projects such as color wheels, posters, and brainteasing designs allow students to put theories to use. All assignments are designed to inspire students' creativity and may include drawing, printmaking, and sculpture.

In grade 8, students paint landscapes and posters, sculpt in clay or papier mâché, and draw from observation and imagination. Students will learn how to give a sense of three dimensions or depth to their paintings and drawings, draw figures from life, and create multimedia compositions. Using architecture as a theme, they will also explore the rules of linear perspective in imaginative ways.

#### Art 1

#### Grade 9–12 | Credit: 1/2

Art I is an introductory exploration of art materials and methods, with an emphasis on learning technique and employing this knowledge as a tool for personal expression. Students experiment with various media, including, but not limited to, pencil, ink, paint, collage, and relief sculpture. The focus on developing technical skill culminates with the fun and challenging tradition of drawing Thetford Academy's hallways in the linear perspective assignment.

#### Expressive Drawing and Printmaking Grade 9–12 | Credit: 1

Using various drawing media such as pencil, charcoal, ink, and nontraditional materials, this semester-long course explores in depth the possibilities of mark-making as personal expression. Emphasizing skill development through accurate drawing from observation, students will focus on still life, figures, and self-portraiture. Students will also use their honed skills for drawing from the imagination and for conceptual work. Experimentation with various printmaking techniques is the focus of the second half of the course. The students will work toward creating a series of prints expressing their interest in a particular subject.

#### Ceramics: Hand Building and Wheel Throwing

#### Grade 9–12 | Credit: 1

This course introduces students to working in three dimensions through the medium of clay. Students will learn hand building and wheel throwing techniques creating both functional and sculptural pieces, including coil, slab, pinch, and working on the wheel. Surface carving and decoration will also be explored, as well as texture and color through the use of ceramic glaze. Overarching questions threading through the course are: "Where does the balance exist between form and function in the creation of ceramic art?" and "What is the role of craftsmanship in ceramics?"

#### Painting

#### Grade 10–12 | Credit: 1

The painting class is designed for students wanting a more focused exploration into traditional painting techniques, as well as more thinking outside the rectangle. Painting class challenges students to combine technical skills with experimentation to develop their visual voice. Emphasis is on the technical qualities of various painting media (acrylic, watercolor, pastel), as well as the exploration of color theory in order to understand and use color in a personally expressive way.

**Prerequisite:** Ceramics or Expressive Drawing and Printmaking.

### Advanced Art and Independent Art

## Grade 11–12 | Credit: 1

The Advanced Art course is designed for the serious and self-motivated art student. Students develop a series of independent works based on a concentrated area of study such as pottery, acrylic painting, printmaking, or other media the student chooses to explore in depth.

Students are encouraged to explore and experiment with different themes and media, and will often participate in classroom skill-building exercises. Students may also elect to cooperate in guided service-learning projects such as The Memory Project. A class climate of mutual support and respect is emphasized through regular class critique. Writing a research paper and completing artwork outside of class is required. This course may conclude with a public exhibition.

**Prerequisite:** Permission of the Instructor or either Ceramics, Expressive Drawing and Printmaking, or Painting.

#### **Photography** *Grade 11–12 | Credit: 1*

This class is an introduction to digital photography that will culminate in a finished photography book with no fewer than twenty pictures. We will cover selected areas of photographic history as well as focus on contemporary photographers. Classes will include: in class assignments, lectures, critiques, group discussions, student presentations, book design, and independent research. Students will learn how to control camera techniques: settings, editing, filtering, and printing. As a starting point, we will explore three different introductory photography topics: landscape, still life, and portrait. Students will be expected to learn

from lectures, conduct independent research, and perform an artist presentation of a chosen photographer from these categories.



## **Design Technology**

The Design Technology program at TA introduces students to the design and manufacturing process and emphasizes hands-on learning in a collaborative setting. Introductory courses focus on the fundamentals of woodworking, metal fabrication, jewelry making, and introduce students to three-dimensional design software and the computer aided design and manufacturing process. Many students go on to take advanced classes where they design and build more significant projects, such as furniture, musical instruments, metal sculptures, and more.

#### Middle School Design Technology Grade 7–8 | Arts Rotation

This course introduces students to basic woodworking techniques, wire jewelry making, and wood turning. Emphasis is on the proper use of hand tools, principles of design, appreciation for fine craftsmanship, and shop safety. Students learn to use SketchUp as a three-dimensional design software and use computer numeric controlled machines to embellish their work. Student projects are often displayed at the end of the term.

#### Design Technology I: Technology for the 21st Century

Grade 9–12 | Credit: 1/2 or 1 This course is designed for beginning Design Tech students. The course helps students gain knowledge and skill using a variety of hand tools and power machinery including the table saw, surface planer, wood lathe, and welding equipment. Students are also introduced to the computer aided design and manufacturing process. Students complete individualized projects in woodworking, wood turning, jewelry making, and metal work.

# Design Technology II

Grade 10–12 | Credit: 1/2 or 1 This course is designed for those students who want to pursue additional studies in one or more areas of design technology. Students are required to utilize computer aided design and manufacturing when appropriate.

**Prerequisite:** Successful completion of Design Tech I with a minimum grade of B and demonstration of ability to work safely in the shop.

**Note:** This semester-long course may be taken for a half block or a full block.

#### **Computer Graphic Design**

Grade 9–12 | Credit: 1/2 This course introduces students to computer graphic design, emphasizing the fundamental elements and principles of design and following the National Standards for the Arts. Engaging in the design process, students learn to interpret a design brief, prepare sketches and initial drafts, incorporate client feedback, and follow through with a finished product. Students are introduced to several software programs as they design and lay out projects, which might include posters for their class dances, logos, signs, social media posts, etc. for local companies, style guides, media brochures, or other realworld design tasks. Students prepare a portfolio of their work for display at the Arts Night in May. Written reflections accompany each project. While homework is minimal, this course requires student motivation, perseverance, and self-reliance.

#### **Timber Framing**

#### Grade 10–12 | Credit: 1

Students collaborate to design a timber-framed structure, complete with a scale model, site plan, engineering calculations, brief environmental impact statement, timeline, and budget. They then cut the frame in the workshop, raise the frame on site, and contribute towards the completion of the structure. Readings, math work, and other traditional assignments supplement the hands-on learning. Homework may include spending time outside class hours contributing to the project after school or on weekends.

#### Yearbook

#### Grade 9–12 | Credit: 1/2 or 1

The Yearbook class meets for a half block both semesters; students can enroll for one or both semesters. In this course, students create and publish the annual TA yearbook. Students learn the fundamentals of layout and design, photography, journalistic writing, and copy editing. Students need to work independently and collaboratively and take initiative to be productive and meet deadlines in this product-driven class. The students will produce a high quality yearbook publication to be distributed to the student body.



#### Drama

The Drama program at Thetford Academy offers students varied opportunities to explore the theater arts. Theater can open up a fascinating world in which students may find opportunities to exercise their drives for self-expression and creativity.

#### Middle School Drama Grade 7–8 | Arts Rotation

This course focuses on improvisation and the fundamentals of acting technique. The class begins with improv games and evolves to individual character development. Students learn to use aspects of voice and movement to enhance a role, and are introduced to theater vocabulary. The class culminates with the performance of a short, selected piece.

#### Fall Play and Ten-Minute Plays Grade 9–12 | Credit: 1

The first half of this theater course is devoted to the production and performance of a full-length play, with auditions held during the first week of classes. In the second half of the semester, students produce a variety of ten-minute plays, and have opportunities for both acting and directing. Students choosing tech roles will develop hands-on experience creating the technical elements of theatrical production, from set construction and painting, to lighting design and sound.

#### **Musical Theater**

#### Grade 9–12 (7–8 with permission) | Credit: 1

Musical Theater, offered during the second semester, is devoted to the production and performance of TA's annual spring musical. Students in the course are engaged in all aspects of the musical's production and have opportunities to act, direct, choreograph, create props and costumes, design and build sets, learn lighting and sound tech, and work on the show's publicity. The final performance takes place each year in May. Note that while much of the rehearsal process occurs during class time, some rehearsals may be required after school and on weekends.

## Music

Music is a form of aural expression, its impact on us can be instantly and profoundly experienced. Music reaches across time and influences us regardless of our differences. Recognizing that music is an effective communicator, provides great joy to both performer and listener, and brings people together, the Thetford Academy Music Department ensures that students:

- Learn to use music to express what they understand and experience about their world, and to realize and respect what others have said about theirs;
- Recognize that working together in a cooperative, caring atmosphere fosters positive results;
- Develop an awareness of the musical concepts of pitch, melody, harmony, rhythm, meter, timbre, and form through participation in various performing ensembles, private and small group lessons, and general music activities;
- Take responsibility for attending class regularly and arriving ready to work. Attendance, work attitude, effort, and commitment are important to achieving the best possible product.

All music classes are semester-long. Under extenuating circumstances, qualified high school students may join classes for the second or fourth quarter with permission from the instructor.

#### **Beginning Instruments** *Grade* 7–8 | *Arts Rotation*

This course is designed for students with little or no musical experience, and is an introduction to playing a musical instrument. Students in the course learn proper playing techniques, music reading skills, how to perform as part of an ensemble, and appropriate care of their instruments. Students perform publicly.

## Instrumental Ensembles

*Grade 9–12 | Credit: 1/2* Instrumental Ensembles meets daily for a half block. Students perform concerts in December and May and at assemblies and celebrations throughout the school year. Concert attendance is mandatory and is part of the student's grade for the course.

Students enrolled in Instrumental Ensembles learn proper instrumental technique, sight reading skills, basic music theory and its application to their instrument, basic improvisation skills, effective practice and rehearsal techniques, and perform as an ensemble music from a variety of genres. Students who need instruments should rent or purchase from a local instrument dealership. If needed, Thetford Academy also has several band instruments available for use.

### Stage Band

Grade 9–12 | Credit: 1/2 or 1

Stage Band is an upper-level ensemble class for high school students who are able to read music. The stage band meets daily and performs for multiple events throughout the semester including concerts in December and May. Students enrolled in Stage Band learn and perform music from a variety of genres, learn theoretical concepts in relation to their instruments and the music they are performing, and utilize specific practice techniques to develop their craft. This class also introduces students to essential skills necessary for effective improvisation. They perform and analyze transcribed solos as well as create their own.

**Note:** Entry to the class is by audition or teacher permission.

#### Chorus

Grade 7–8 | Arts Rotation Grade 9–12 | Credit: 1/2

Choral Music provides training and performance opportunities for all interested students. The course explores music from a variety of eras, styles, and cultures, and teaches students the basics of how to follow choral scores and read music. Students in Choral Music work together to create a bright, expressive choral sound and unified ensemble. Performances (in December or January for first semester students, and May or June for second semester students) are a mandatory part of a student's evaluation.



## **Culinary Arts**

Culinary Arts courses address multiple skills, including food preparation, nutritional health, consumer skills, and time management. Food courses concentrate on the fundamental cooking skills used in everyday life, such as reducing recipes, kitchen safety, and sanitation. Students may also learn budgeting and consumer skills: unit pricing, comparison shopping, and time management strategies. Culinary courses offer practical applications for traditional academics. For example, by using reading comprehension skills to decipher a recipe, math skills to alter quantities, or the scientific method to modify recipes, Culinary Arts students are building transferable skills that can be used across the curriculum.

#### Introduction to Cooking Grade 7–8 | Arts Rotation

Introduction to Cooking is a middle school elective designed for hands-on learning. The course explores the fundamentals of standard cooking procedures, vocabulary, and measurement. Students work through a variety of recipes, including simple entrees, breakfast foods, and desserts, with weekly selections reflecting students' growing skills and efficiency.

### Cooking for Health

Grade 9–12 | Credit: 1 Cooking for Health focuses on both cooking skills and on planning a healthy diet. Students in the course plan and prepare meals from a variety of food groups using the My Plate Food Guide. The course teaches students how to read the USDA Food Nutrition Label to deduce and compare the health quality of different food items. Cooking labs provide an opportunity to try nutrientrich foods with complementing flavors to make healthy and delicious meals. Gaining confidence in the kitchen benefits personal health throughout life. Meals made from scratch with real

#### Meal Planning and Preparation Grade 9–12 | Credit: 1

inaredients are more nutritious.

Meal Planning and Preparation offers students opportunities to develop cooking know-how. Students practice standard cooking methods and are introduced to more advanced culinary techniques. Using the textbook Guide to Good Food, students will cook two to three times per week, while learning about basic cooking methods, techniques, common dilemmas, and best practices. Meal Planning and Preparation is linked to service learning, with projects including Empty Bowls for the Thetford Food Shelf and a holidaylLuncheon for the Thetford Elder Network.

#### Foods Around the World Grade 9–12 | Credit: 1

Trying new foods with unfamiliar flavors is an adventure in Foods Around the World. Students select, prepare, and share foods from a wide variety of countries and cultures. The course introduces basic and intermediate cooking procedures, cooking vocabulary, and measurements. In cooking labs, students develop culinary skills through regular practice and experience. In each unit, students dive deeper into a culture's recipes, comparing regional crops with diet profiles and customs, and learn about the role of spices and their identity in ethnic foods. The course culminates with a smorgasbord "banquet" highlighting each unit with studentprepared dishes and emphasizing ethnic blends of spices, form, appeal, and presentation.

#### Pastries

#### Grade 9–12 | Credit: 1

The Pastries course offers students an opportunity to create a variety of pastry shop delicacies including: éclairs, napoleons, palmiers, croissants, Danish pastries, tarts, tortes, artisan cakes, and cookies. Students learn the secrets of flaky and buttery crusts, rich and creamy fillings, and light, airy pâte à choux. This course introduces the techniques for cutting and folding in butter to make laminated dough and blitz puff pastry. Students learn about form, symmetry, appeal, and presentation. This course satisfies the graduation requirement in the Arts.

#### **Food Science**

Grade 9–12 | Credit: 1/2 or 1 The Food Science course uses common

food ingredients to explore scientific concepts. Throughout the course, students will participate in laboratory food experiments, using the scientific method to explore science concepts. Cooking offers ample opportunities to investigate chemical and physical changes, acid and base reactions, phase changes, heat transfer and more. For example, jams, pickles, beef jerky, ice cream, and bread all offer a platform to study science. Lab reports, including observations, data, calculations and conclusions allow students to reflect on scientific concepts while developing critical thinking and reporting skills. After successfully completing Food Science students will have an introductory understanding of basic chemistry.



### Program Highlight Empty Bowls

Each year, Thetford Academy participates in the "Empty Bowls" project, a hungerrelief effort led by artists and craftspeople across the globe and implemented by individuals and organizations at the community level.

At TA, students support the project through their coursework in both visual and culinary arts. Students in TA's Ceramics course design and make beautiful handcrafted bowls, and Culinary Arts students prepare gallons of homemade soup and scores of loaves of crusty bread.

The students' work is sold at the Thetford Academy Alumni Association's annual holiday craft fair, with all of the proceeds donated to support the Thetford Food Shelf and its work in the Thetford community. Service-learning projects like "Empty Bowls" are an important part of TA's curriculum in the Arts and beyond, teaching students how even small actions can have a big impact.

# HUMANITIES

Through the Humanities at Thetford Academy, students explore human society and culture Humanities courses emphasize skill development in critical reading, writing, and oral expression. Courses in English, Social Studies, and World Languages invite students to examine concepts of identity, culture, and language through the lens of different disciplines. The curriculum encourages creative and critical thinking, the respectful exchange of ideas, and a thoughtful exploration of the human experience. A broad range of elective courses allows students to dive deeply into areas of interest and explore new ideas.

## English

In the English Department, students work to achieve competence and aim for excellence in the areas of reading, writing, speaking, listening, and reasoning. Core English courses are required for students in grades 7–10; one credit of English is required each year through grade 12. Students can choose from a wide range of English electives and are encouraged to take additional courses beyond the required curriculum.

#### ENGLISH REQUIRED COURSES

### English 7

#### Grade 7 | Required

The goal of English 7 is to meet standards of participation in a literate community by talking about books, ideas, and writing. Students accomplish this through reading and writing workshops; in addition, they practice grammar and vocabulary skills. Discussions and writing assignments are designed to help students make connections between their own experiences and the readings. Titles may include: Nothing but the Truth, Day of Tears, The Outsiders, Diary of Anne Frank, and Ghost Boys. Students use the writing process and write "Response to Literature" essays, a personal essay, a persuasive essay, poetry, and other creative pieces.

#### English 8 Grade 8 | Required

This course emphasizes skill development in reading, writing, speaking, and listening—all essential tools for communication. Students study a variety of both fiction and non-fiction literature, including novels, short stories, plays, poetry, and personal essays. Over the course of the year, students engage in reading and writing workshops, several interdisciplinary units, and plenty of grammar and vocabulary work. For the final exam, students create an original creative project and essay for an independent reading book. Titles may include Esperanza Rising, A Long Walk to Water, and Twelfth Night.

#### English 9

#### Grade 9 (Required) | Credit: 1

English 9 is designed to strengthen students' academic literacy—the skills of reading, writing, and reflection that are essential to success in high school. Participating in the course's literate community and sharing ideas and work with others helps students develop both expressive and collaborative skills. Students explore themes of coming of age, respecting differences, human dignity, and justice. Students may read The Curious Incident of the Dog in the Night, Twelve Angry Men, The Hate U Give, and Enrique's Journey. Students write personal responses, responses to text essays, creative pieces, and other

assignments as time and interest allow. The English 9 course includes an embedded honors option.

#### English 10: Identity and Voice

Grade 10 (Required) | Credit: 1 In English 10, students explore their sense of identity and voice as readers and writers. "The Anthology Project," a TA tradition, highlights this exploration. Throughout the semester, students collect excerpts of both original and published literature, including multimedia, that feel important to them-citing sources and exhibiting their own artistic touch—to form a hard copy collection or a website. To cap off the project, students formally present their anthologies to an audience. In English 10, students read Sandra Cisneros's The House on Mango Street; Emily Bernard's Black is the Body: Stories from My Grandmother's Time, My Mother's Time, and Mine; Shakespeare's Romeo and *Juliet*; poems; contemporary short plays; and a "Book Group" novel they choose from a list of offerings. Students write vignettes, poetry, an essay, and numerous in-class writings. The English 10 course includes an embedded honors option which is open to everyone.

#### **ENGLISH ELECTIVE** COURSES

## **Creative Writing**

Grade 11–12 | Credit: 1 For students who love literature and want to create their own, this course explores crafting poetry, creative nonfiction, fiction, and personal essays. For inspiration, students draw upon powerful texts old and new, art, music, and nature, as well as workshops led by local authors. Students frequently read their work aloud to each other during class. Grammar and vocabulary are regular components of study; woven into the examination of rules and definitions is a consideration for how writers control the reader's experience by the punctuation, grammar, and words they choose. As a culminating project, students present a sampling of their work to an audience in the theater. Reading one's work aloud is a requirement of this course.

### **Composition for College** and Career

Grade 11–12 | Credit: 1

This course strengthens students' everyday writing and vocabulary skills. It aims to make the study of grammar, punctuation, and vocabulary relevant to their lives. Students write a short paper most weeks on a topic that is meaningful to them, and through consistent practice, revision, games, activities, and weekly guizzes, they get better and better at editing their own writing. Reading includes Jeannette Walls' The Glass Castle, selections from Annie Proulx's Heart Songs and Other Stories, and Jandy Nelson's I'll Give You the Sun.

#### **Science Fiction** Grade 11–12 (10 with permission) Credit: 1

This course explores speculative fiction through the wide genre of science fiction, including novels, short stories, films, and games. Students will examine how more fantastical worlds and concepts still allow us to explore themes and anxieties present in our current culture, as well as strengthen both creative and analytical

skills through essays, presentations, and short stories. Works studied may include Hitchhiker's Guide to the Galaxy, Kindred, The Thing, Do Androids Dream of Electric Sheep?, To Be Taught, if Fortunate, and short stories by Ray Bradbury.

#### **Civil Rights Literature** Grade 11–12 | Credit: 1

The class explores the history of what is often called the "classic civil rights movement" by examining the literature of that period, as well as the literature about that period that has been published more recently. There is also an emphasis on current events as they relate to civil rights and racial justice. Course texts include a wide range of fiction and non-fiction, including (but not limited to) speeches, poetry, novels, short stories, news articles, and movies. Students will write traditional essays, as well as creative compositions such as poetry and short stories. By exploring the major milestones and markers of the civil rights movements, the course aims to provide students a foundational understanding of the events themselves and the associated literature.

#### Human Nature in Literature-**Honors** Course Grade 11–12 | Credit: 1

Because students in this course read literature with challenging, unconventional structures, and because they push beyond their current achievements when they write about this literature, the subtitle of this course is "Breaking Boundaries." The writing focus is on responses to text, specifically clarity of purpose. Students work on choosing apt quotes as evidence as well as crafting dynamic introductions and solid conclusions. This work prepares students for American Literature, college applications, college courses, and...life! After all, being able to make an argument backed up by relevant evidence is a useful skill. In addition, students write poetry and creative nonfiction. Vocabulary study is a weekly component of the course, and students also take an in-depth look at how grammar affects writing style and voice.

Reading may include works of literature such as Toni Morrison's Beloved, Shakespeare's Hamlet, Jhumpa Lahiri's Interpreter of Maladies, and Sarah Ruhl's Eurydice, as well as independent reading choices.

#### American Literature— **Honors** Course Grade 12 | Credit: 1

The primary goal of American Literature at Thetford Academy is for students to develop their abilities as writers and independent critical readers. In this college-level course, seniors read and study selections from some of the best writings of American and world literature-books, plays, poetry, and short stories. The writing component includes personal responses, analytical essays about literature, and a research essay. American Literature is for those seniors with an exceptional interest in literature and writing who are willing to work hard at both.

Prerequisite: Summer reading and writing are mandatory for this course; the assignments may be picked up during the last week of May.

#### World Literature

#### Grade 11–12 | Credit: 1

World Literature gives students an opportunity to expand their global cultural awareness by examining literary perspectives and traditions through the work of non-American writers. This study provides opportunities for dynamic discussion and a deeper understanding of other cultures. The course explores questions such as: How does where we come from impact who we are or who we become? What is the relationship between one's personal experience and one's cultural perspective? How does literature reflect the culture? Readings include global selections such as Achebe's Things Fall Apart, Dai Sijie's Balzac and The Little Chinese Seamstress, and Camus's The Stranger. Writing assignments to include informational pieces, narratives, journal entries, and poetry.

#### ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

#### ESOL—English for Speakers of Other Languages

#### Grade 9–12 | Credit: 1/2

This course provides English Language Learner students with extra support in the foundations of the English language by enhancing their skills in reading, writing, speaking, pronunciation, and listening comprehension.



## **Social Studies**

Social Studies courses help students contextualize modern society and current events through the study of major historical eras, influential individuals and groups, and economic and governmental systems. Students will learn to analyze information and differentiate between fact, opinion, and interpretation, and build a solid background in the skills of reading, writing, and oral expression. All students are expected to complete two major research papers and two oral presentations during their high school careers.

#### SOCIAL STUDIES REQUIRED COURSES

#### Introduction to Social Studies 7 Grade 7 | Required

This course is an introduction to Social Studies focusing on the American experience. It includes orientation to social sciences such as geography, economics, and civics, as well as topics in history. Some units of study include: What is History, Thetford History, Native American People, Slavery, Civil Rights, Immigration, and major American conflicts. For each unit, students are expected to maintain an organized notebook, participate in class discussions, and complete daily homework assignments. Methods of learning include small group discussions, large group discussions, presentations, note taking, projects, research papers, and tests.

#### Global Studies and Geography Grade 8 | Required

Global economic, cultural, and political forces increasingly shape our lives in the 21st century. This course aims to equip students with the skills and knowledge necessary to successfully navigate our global society. Major questions in this course will include: Where are the countries, regions, and major physical features on earth located? What does it mean to be a responsible global citizen? Why should one know and care about what goes on in other parts of the world? Students develop skills in a variety of disciplines including history, geography, and current events. Coursework focuses on analytical reading and writing as well as individual and group research projects.

#### **World Civilizations**

Grade 9 (Required) | Credit: 1 The World Civilizations class is the introductory social studies course at the high school level, primarily designed for the ninth grade year. The organizing theme to this course is an examination of the cognitive, agricultural, and scientific revolutions. Students explore the cultures and societies of prehistoric times, the river valley civilizations, and a variety of early empires such as the Mayans, Greeks, Romans, and Songhai. Throughout their study of the past, students also reflect on and analyze connections to the present, including the advances that led human society into the modern era. In addition to the skills and content specific to the area of social studies, two of TA's transferable skills will be a key focus of the class: a) informed and integrated thinking, and b) effective communication and expression. Students will have multiple writing

assignments throughout the course, including a culminating research project.

#### United States History Grade 10 (Required) | Credit: 1

This course offers a thematic approach to studying US History in the time frame from colonization through the Great Depression. Themes we will examine include American Democracy, Immigration and Migration, The Economy, Labor and Reform, Struggles for Equality, and Imperialism and War. In studying these topics students will be asked to read a variety of primary and secondary sources. The first half of the course will be dedicated to learning strategies for reading historical texts and focusing on the components of research paper writing. All of these skills will then be used in writing a major research paper during the second half of the course. This course includes an embedded honors option.

#### **Modern World History**

Grade 11–12 (Required) | Credit: 1 The society in which we live is a direct result of 20th-century events, both in the US and across the world. This course reviews important domestic and international developments and events since 1900, and approaches the 20th century through the themes of communism versus capitalism, genocide, colonialism, war, human rights, and globalization. Students learn to analyze the causes and effects of important events and developments; compare, contrast, and evaluate conflicting interpretations of historical events; display knowledge of worldwide current events and their impact on the US; write in a variety of styles; and complete a culminating research paper and oral presentation. This course includes an embedded honors option.

#### SOCIAL STUDIES ELECTIVE COURSES

#### Economics—Honors Course Grade 11–12 | Credit: 1

This course is an introduction to economics, covering fundamental economic concepts, as well as topics in micro and macroeconomics. These topics include, but are not limited to, scarcity and choice, opportunity cost, markets, prices, supply and demand, gross domestic product, aggregate supply and demand, unemployment and inflation. Additionally, the course will discuss the application of these concepts through the lens of labor and environmental economics.

#### Social Justice in Action Grade 9–10 | Credit: 1/2

This project-based course is designed to introduce students to social justice issues and assist them in discovering their ability to create positive change in their own world. Students will critically analyze various social movements related to race, ethnicity, gender, sexual orientation, and class. Students will also explore and discuss how these concepts influence human understanding, relationships, and behavior. The course will be devoted both to learning about social constructs and movements, and influencing change by designing and implementing a social justice action project within their own community or framework.

#### Civics

#### Grade 11–12 | Credit: 1/2

Learning about civics gives students the skills and knowledge necessary to be active citizens who have a positive impact on their communities. In this course, students discover the rights and responsibilities of citizenship in the United States. This course is designed to provide students with a practical knowledge and understanding of the American government and its direct connection to its citizens. Students will be able to apply knowledge of the US Constitution and demonstrate understanding of how the American system of government functions on the local, state, and national levels, as well as its impact on individual citizens.

#### **Psychology** *Grade 11–12 | Credit: 1*

Why do people do the things they do? What does it mean to be "normal"? How do we learn and remember? What does it mean to think and feel, and how do we know? People have pondered these questions for ages, and the field of psychology provides the tools to search for answers. In this upper level course, students will rely heavily upon primary sources, small group work, independent research, and student presentations, as they explore such topics as personality theories, biopsychology, cognition, sensation, emotions, states of consciousness, abnormal psychology, and the interface between psychology and the law.

#### **Gender Studies** *Grade 10–12 | Credit: 1*

In this course, students explore how gender roles in the world have changed and expanded since the 1860s. Students look at the political, social, economic, educational, and gender issues of the past and apply them to contemporary issues. The course focuses on everyday sexism and how it affects not just women but everyone in our culture. Through media and technology, writing, presentations and discussions, students will broaden their knowledge and critical thinking skills while respectfully considering other perspectives.

#### **Food Justice**

#### Grade 9–12 | Credit: 1/2 or 1

We interact with food on a daily basis and yet its origin and journey is often unclear. This course is designed to introduce students to the complex systems that bring food from farm to table. The study of food systems is dynamic and multidisciplinary, so the curriculum will integrate social studies, humanities, nutrition, and environmental science. Students will engage in hands-on learning to discover their place in the complex web of food production, distribution, and consumption. The ultimate goal of the course is to prepare students to become active and informed participants in their own local, regional, and global food systems.



## World Languages

By interweaving language and culture, TA's World Languages program helps students develop linguistic proficiency and broaden cultural sensitivity. The curriculum adheres to the "5 Cs" of the National Standards for Foreign Language: communication, cultures, connection, comparisons, and communities. At the end of a three or four-year sequence of French or Spanish, students will be able to enjoy communicating with a native speaker about most aspects of daily life, express opinions, and discuss a variety of cultural subjects, including interpretation and analysis of music, poetry, art, and literature.

Thetford Academy strongly encourages college-bound students to take at least three courses of the same language in high school; four or five courses are preferred.

#### MIDDLE SCHOOL PROGRAM

#### French I | Spanish I

Grade 7-8 | Strongly Recommended Middle School languages teach students the skills to be successful language learners, and places importance on projects, interactive games, and activities. TA offers French I and Spanish I as a two-year program in middle school. Students may start language studies as 7th graders and continue in 8th grade, covering the equivalent of a French I or Spanish I course in two full years of study. To successfully advance to the second level in the 9th grade, students must complete both years successfully.

#### **FRENCH PROGRAM**

#### French I

#### Grade 9–12 | Credit: 1

This course is an introduction to the study of French and the francophone world. Students will establish a solid foundation for more advanced study as they develop the tools necessary to communicate in French about a variety of topics drawn from their daily lives. They will gain proficiency in each of the four areas necessary for really learning a second language—listening, reading, speaking, and writing—as they acquire basic vocabulary and begin to develop an understanding of the way French works.

Components of the class include oral drills, pair and group work, total physical response (TPR), silent writing, games, songs, dialogues, and other activities. All languages exist within a broader cultural context, and an equally important objective of the course is for students to better understand French speakers and cultures around the world.

#### French II

#### Grade 9–12 | Credit: 1

In French II, students improve their proficiency in listening, reading, speaking, and writing as they expand their vocabulary, gain increasing confidence and facility with the language, and deepen their understanding of French grammar. There is an intensive review of the key grammatical concepts and vocabulary from French I at the beginning of the course. As in French I, oral drills, pair and group work, total physical response (TPR), silent writing, games, songs, dialogues, and other activities are all components of the class. A much greater portion of the course, however, is conducted in French. As students gain confidence and facility with the language, they will be expected to



# Program Highlight Poetry Out Loud

For more than a decade, Thetford Academy students have been selecting poems from the Poetry Foundation's vast collection and bringing them to the stage – making Poetry Out Loud a TA tradition.

The national recitation contest, created by the National Endowment for the Arts and the Poetry Foundation, encourages the study of great poetry, and helps students master public speaking skills, build self-confidence, and learn about literary history and contemporary life.

At TA, high school students are encouraged to join Poetry Out Loud. Participants select their own poem and work with a faculty mentor to develop their recitation performance. Winners from the schoolwide contest advance to a regional, then state competition–and then maybe–to the national finals in Washington, D.C.

Thetford Academy has been proud to be a part of the Poetry Out Loud community and we look forward to continuing this TA tradition for years to come.

communicate with the teacher and their classmates in French. French language websites, video documents, and other realia are used extensively.

**Prerequisite:** Successful completion of French I with a grade of C or better or permission of the instructor.

## French III

#### Grade 10–12 | Credit: 1

French III begins with review and expansion of the most important concepts from French II. There is an emphasis on vocabulary development and oral and written self-expression. The class is conducted entirely in French, as students focus on improving their listening comprehension and developing the ability to express themselves fluidly in French. Activities are regularly drawn from French-language movies, YouTube videos, songs, and newspapers. By the end of the class, students will be comfortable in a French-only classroom environment and have the skills necessary to succeed in Advanced French. Students taking this course commit to speaking French during class.

**Prerequisite:** Successful completion of French II with a grade of B or better or permission of the instructor.

#### French IV/V—Honors Course Grade 11–12 | Credit: 1

In this advanced course, students explore childhood and growing up by reading Antoine de Saint-Exupéry's classic, Le Petit Prince. Historical and cultural areas of study are related to this work and to the life and times of its author. Additional topics of study include grammar for advanced-level communication and developing one's oral and written expression. Students in Advanced French commit to speaking French during class.

**Prerequisite:** Completion of French III witha grade of B or better or permission of the instructor.

#### **SPANISH PROGRAM**

#### **Spanish I** Grade 9–12 | Credit: 1

This course is an introduction to the study of Spanish and the hispanohablante world, and helps students establish a solid foundation for more advanced study, travel, and intercultural communication. The number of Spanish speakers in this country is rapidly increasing; therefore, there is both academic and practical purpose in pursuing Spanish. Students will be engaged in a variety of active methods that will contribute to the development of skills in speaking, listening, reading, and writing. Oral drills, pair and group work, total physical response (TPR) exercises, written and oral exercises, games, music, dialogues, multimedia projects, and other activities are all components of the Spanish program. This course explores a wide variety of cultural topics, with an emphasis on the daily lives of young people.

#### **Spanish II** Grade 9–12 | Credit: 1

This course begins with an intensive review of Spanish I. Methods are much the same as in level I; however, more of the course is conducted in Spanish as students continue to develop the ability to understand, speak, read, and write. Oral work is stressed and self-initiated conversation is encouraged. Students will be prompted to manipulate the language at a more advanced level while expanding vocabulary, applying grammatical structures, and strengthening awareness of cultural similarities and differences. Performance-based assessments such as skits and videos are a regular component of the course. Short readers, various realia and media, as well as a text-based Supersite accompany the text program.

**Prerequisite:** Successful completion of Spanish I with a grade of C or better or permission of the instructor.

#### **Spanish III** Grade 10–12 | Credit: 1

This course continues the work accomplished in Spanish II, including a review and expansion of many concepts and structures. This level is taught almost entirely in Spanish and requires focused work on the development of fluid speaking, reading, and writing. In addition to text activities, this course includes studies of current events. traditional and contemporary music, short stories and legends, poetry, film. YouTube videos, and other realia and media. Upon completion of this course students will have enhanced their ability to communicate with hispanohablantes about many topics and be well prepared for Advanced Spanish.

**Prerequisite:** Successful completion of Spanish II with a grade of B or better or permission of the instructor.

#### **Spanish IV/V—Honors Course** *Grade 11–12* | *Credit: 1*

This course is designed to provide an active and rewarding experience as students continue to strengthen language competency and cultural awareness. Each semester offers a different curriculum to suit the demands. of enrollment. Students read selections of contemporary and classic literature. Additional resources include news articles, short stories, plays, podcasts, videos, musical selections and other web resources. Topics include the natural environment, current and historic events, influential figures, themes of identity and power in the Americas, and music and art of the Hispanic world. Students who sign up for this course should commit to speaking Spanish only.

**Prerequisite:** Completion of Spanish III with a grade of B or better or permission of the instructor.

"Consider that the mind is capable of an endless growth."

111

1000

—**Asa Burton** Thetford Academy founding member 1819

# STEM

STEM at Thetford Academy integrates science, technology, engineering, and mathematics, going beyond memorization to provide students with the opportunities for critical thinking, problem solving, and collaborative work. The Science and Mathematics departments at Thetford Academy use a hands-on approach to learning. Students collect, record, and analyze data, applying their knowledge and skills in real-world settings. Examples include model bridge construction, water quality monitoring, horticultural design, woodlot management, statistical analysis, among others.

### **Mathematics**

The Mathematics Department provides multiple entry points and pathways for students to progress in their mathematical competency. The math curriculum at TA is informed by the Common Core standards and the Vermont Framework in curricular content and learning opportunities, particularly the standards for mathematical understanding, problem-solving, and systems.

# Graduation Requirements and Course Selection:

At least three credits of high school mathematics are required for graduation, with Algebra I recommended as one of the three courses. All students interested in pursuing a STEM field should consider taking two years of Algebra, one year of Geometry, and an advanced mathematics course. Students are required to earn two of their math credits at Thetford Academy; for students pursuing a technical program with an embedded math credit. one mathematics credit from the tech center can be counted toward the graduation requirement.

#### **Course Credit Regulations:**

Students who wish to take two mathematics courses in one school year may do so if they have met the



prerequisite requirements for the second course and there is room available in the class. If a course is offered at TA and a student takes an equivalent course elsewhere, the student must take the Thetford Academy math course exam and receive at least 85% on the exam for the course to serve as the appropriate prerequisite.

#### Math I

#### Grade 7–8 | Required

Math I strengthens students' understanding of basic math concepts such as decimals, fractions, percents and problem solving. The course prepares students for Math II or Concepts.

#### Math II

#### Grade 7–8 | Required

Math II solidifies students' understanding and application of decimals, fractions, integers, percents, and problems solving. It also begins an exploration into proportional reasoning. The course prepares students for Math III or Pre-Algebra.

#### Math III

#### Grade 7–8 | Required

Math III builds on the discovery-based problem-solving and critical thinking done in Math I and Math II, preparing students for Algebra I. Topics include evaluating expressions, fractions, ratios, proportions, percents, and introductory geometry. The main area of focus is solving one-variable equations and graphing linear equations. Students need a firm grasp of integer and basic operations to be successful in this course.

### Math Concepts

#### Grade 9–12 | Credit: 1

Math Concepts is a small-group, individualized class, with a curriculum designed for students who need instruction in the foundations of mathematics.

**Prerequisite:** Placement in this course requires consultation with a school counselor and the math department.

#### **Consumer Math** *Grade 11–12 | Credit: 1*

Consumer Math is a small-group, individualized class focusing on the application of mathematical concepts to life skills such as balancing checkbooks, managing expenses, being a savvy consumer, and understanding product discounts.

**Prerequisite:** Placement in this course requires consultation with a school counselor and the math department.

#### Pre-Algebra

#### Grade 9-10 | Credit: 1

Pre-Algebra bridges the gap between basic mathematical functions and algebraic thinking. The focus is on building a strong foundation as students prepare to move forward to Algebra I, Applied Mathematics, or Personal Finance. Topics include evaluating expressions, fractions, ratios, proportions, percents, and introductory geometry. The main area of focus is solving one variable equations and graphing linear equations. Students need a firm grasp of integer and basic operations to be successful in this course.

**Prerequisite:** Successful completion (C or above) of Math II or equivalent, or permission of the instructor.

#### Algebra I

#### Grade 8 | Instructor permission required Grade 9–12 | Credit: 1

Algebraic thinking is the stepping stone to higher level mathematics. The course begins with a thorough review of the concepts essential to success in Algebra—the order of operations, operations with signed numbers, and the distributive property—and moves on to solving and graphing, linear and quadratic equations and inequalities. In addition, students study factoring, simplifying and manipulating rational expressions, and linear functions. The course includes an emphasis on collaborative problem-solving. The Algebra I course includes an embedded honors option.

**Prerequisite:** Successful completion (B or above) of Math III or Pre-Algebra, or permission of the instructor.

#### Algebra II Grade 9–12 | Credit: 1

In this course, students study sequences, statistics, linear models and systems, functions, relations, and transformations. Problem solving and group work make up a large portion of the course. This course is designed for students who wish to develop their mathematical intuition by seeing how math works in real-life situations. It is excellent preparation for the social sciences such as psychology or sociology, and students would be well prepared to continue their study of math by enrolling next in the Statistics course.

**Prerequisite:** Successful completion (B or above) of Algebra I or permission of the instructor.

**Note:** Students must take Algebra II Honors before enrolling in Precalculus.

#### Algebra II—Honors Course Grade 10–12 | Credit: 1

Algebra II Honors is an advanced mathematics course that helps students prepare for future mathematical study and STEM careers. The course expects students to have a very strong algebraic foundation, including excellent factoring skills. Units of study include matrices, trigonometry, functions, and square roots of both real and imaginary numbers. Graphing various forms of equations and inequalities is an integral part of the course. Students are asked to think critically throughout Algebra II Honors by explaining, justifying, verifying, interpreting, drawing, and labeling mathematical relationships.

**Prerequisite:** Successful completion (B or above) of the embedded honors option in Algebra I or permission of the instructor.

#### Geometry

Grade 9–12 | Credit: 1

Geometry covers similarity, congruence, basic trigonometry, properties of geometric figures, transformations, and the geometry of solids. Deductive reasoning and developing mathematical arguments are a central focus. This course is discovery-based and focuses on applications. The Geometry course includes an embedded honors option.

**Prerequisite:** Successful completion (B or above) of Algebra I, Algebra II Honors or Algebra II, or permission of the instructor.

#### **Applied Mathematics** *Grade 11–12 | Credit: 1*

This course surveys various mathematical contexts through the lens of everyday use. Topics may include carpentry, home budgeting, the mathematics of voting, the geometry of art, and automotive applications. Applied Math is offered for students who have not yet taken Algebra I or Algebra I Honors.

**Prerequisite:** Successful completion of Pre-Algebra or permission of the instructor.

## Personal Finance

Grade 11–12 | Credit: 1

This course reviews foundational mathematical skills to navigate common financial topics in the business world and in one's personal life. Units of study include types of wage payments, taxes, loans, saving and investing options, insurance, and household expenses.

#### Statistics

#### Grade 11–12 | Credit: 1

Statistical analysis is the basis of many areas of study. Most college-level students will study some level of statistics to prepare them for their future careers. This course provides a good background preparation for that study. Students learn about data collecting techniques, data analysis, measures of central tendency, and probability. Computer applications and calculators are used throughout the course.

**Prerequisite:** Successful completion (C or above) of Algebra II and Geometry, or permission of the instructor.

#### **Precalculus—Honors Course** *Grade 11–12 | Credit: 1*

This course provides preparation for calculus through detailed study of the elementary functions. Topics of study include an introduction to functions and their algebraic properties and in-depth analysis of a variety of elementary functions. Trigonometric, exponential, logarithmic and polynomial functions are included, with other topics selected by the instructor.

**Prerequisite:** Successful completion (B or above) of Algebra II Honors and Geometry, or permission of the Algebra II instructor.

#### **Calculus—Honors Course** *Grade 11–12 | Credit: 1*

This course is an entry-level survey of the topics of the calculus of one variable, and includes applications from both differential and integral calculus. While emphasis is on skills, the course also covers the theoretical foundations of these topics.

**Prerequisite:** Successful completion (B or above) of Precalculus or permission of Precalculus instructor.



## Science

The Science Department at TA helps students acquire essential knowledge in the physical, life, and chemical sciences. By engaging in the authentic practice of science, students will learn about the relationships among science, technology, and human activity and how they affect the world.

- Acquire, classify, and utilize scientific knowledge;
- Understand basic scientific methods and principles;
- Understand and apply safe lab techniques;
- Demonstrate proper use and care of laboratory equipment and;
- Be environmentally aware.

To fulfill the Science diploma requirements of Thetford Academy, a student must complete three credits of coursework from the Science Department, including Conceptual Physical Science and Biology.

#### **SCIENCE REQUIRED COURSES**

#### Introduction to Laboratory Science Grade 7 | Required

This course introduces students to laboratory science through a variety of subjects and experiences. Students will have an opportunity to design experiments, complete engineering and design challenges, collect and record data, interpret results and communicate findings using scientific writing. Students will engage in units that cover topics related to matter and its interactions, meteorology, climate change and human impact on our environment, Genetics, human body systems and cell structure and function. This course will use our outdoor resources for the purpose of learning as much as possible.

#### The Flow of Matter and Energy through the Biosphere *Grade 8 | Required*

This course examines the transfer of matter and energy through ecosystems, both in the field and in the laboratory. Students explore the ecological structure and composition of a nearby forest and pond ecosystem and delve into the complex dynamics of the biotic and abiotic world, including food webs, nutrient cycles, and species interactions. The physical earth section explores rocks and minerals, the processes that shape the planet, and the geologic history of the earth. Students examine the physical aspects of energy and matter transfer, and the topics of magnetism, electricity, and the nature of light. Finally, students will study botany, focusing on plant parts and their functions.

#### **Conceptual Physical Science** *Grade* 9 (*Required*) | *Credit:* 1

This course is a laboratory-based introduction to the physical sciences with an emphasis on proper laboratory safety and procedures. Topics in physics and chemistry include motion, energy, force, work, heat and states of matter, as well as the structure of the atom, chemical bonding, and the periodic table of elements. This course also includes a unit on astronomy, giving students the opportunity to better understand the Earth's (and their own) place in the universe. In addition to individual and group research projects and labs, students are challenged to complete engineering design projects. This course includes an embedded honors option.

## Essentials of Biology

Grade 10 (Required) | Credit: 1 Are viruses alive? If human mass is mostly bacterial cells, who is running the show? If the mushroom on the forest floor is not a fungus organism, what is? This introductory course answers these and other questions and helps students relate modern biology to our everchanging world. Topics of study include ecology, cell biology, biochemistry, genetics, evolution, and classification. The course includes a variety of labs and hands-on field explorations designed to further understanding of the scientific method.

#### SCIENCE ELECTIVE COURSES

#### Astronomy

#### Grade 10–12 | Credit: ½

What makes a star shine? How long will the sun keep shining? What are black holes and how can they form? Astronomy is a general introduction to contemporary astronomy that includes how stars form and how they end their existence. The course gives special attention to the historical roots of astronomy and the exciting discoveries of the past few years. Students learn how pulsars and black holes result from the evolution of normal, massive stars, and how black holes are at the center of galaxies and guasars. Astronomy students explore the solar system and constellations and learn to find their way around the sky. In labs, students explore concepts discussed in class.

#### Advanced Biology— Honors Course

#### Grade 11–12 | Credit: 1

Advanced Biology immerses students in study of the biological processes that control and regulate all life. Looking at DNA as life's "blueprint," students explore DNA's role as a delivery device for the biological information that drives evolution, as well as its role in medicine, industry, and forensic science. Students engage in a series of labs and independent projects to prepare themselves for college-level work in science, biology, or a health-related field of study.

**Prerequisite:** Essentials of Biology or permission of the instructor.

#### Food Science

#### Grade 9–12 | Credit: 1/2 or 1

The Food Science course uses common food ingredients to explore scientific concepts. Throughout the course, students will participate in laboratoryfood-experiments, using the scientific method to explore science concepts. Cooking offers ample opportunities to investigate chemical and physical changes, acid and base reactions, phase changes, heat transfer and more. For example, jams, pickles, beef jerky, ice cream, and bread all offer a platform to study science. Lab reports, including observations, data, calculations and conclusions allow students to reflect on scientific concepts while developing critical thinking and reporting skills. After successfully completing Food Science students will have an introductory understanding of basic chemistry.

#### Chemistry I: The Study of Matter Grade 11–12 | Credit: 1

Chemistry is the study of matter and its changes. In this class, students learn how all matter in the known universe is simply a combination of 92 fundamental elements and how they themselves, and all that sustains them, are made of those elements. To understand this, students study the building blocks of matter, how humans have come to understand them, and how science may be harnessed to predict their interactions and create new forms of matter. Chemistry is a compelling tale about how humans have come to make sense of the natural world. This course provides students with the language, information, and ideas needed to understand that story, which is still being written.

**Prerequisite:** Essentials of Biology (concurrent enrollment permitted) and Algebra I.

#### Advanced Chemistry— Honors Course

Grade 11–12 | Credit: 1 Students delve into the part of chemistry involving calculating amounts-how much solid is produced? How much heat is given off? Students learn to write chemical formulas and reactions, examine reactions of gases, analyze how fast reactions proceed and look at a special class of reactions that go forward and backward at the same time. Advanced Chemistry is the essential next step for those students who wish to take a Chemistry course in college for a career in medicine or another STEM field. This course, along with Chemistry 1, is a good preparation for the SAT II test in chemistry.

**Recommended preparation:** Chemistry I with a grade of B or better. (Algebra II and other ongoing preparation in mathematics are recommended.)

#### Anatomy and Physiology Grade 11–12 | Credit: 1

The human body is a finely tuned, resilient, and adaptive machine. Anatomy and Physiology is an exploration of the inner workings of the body in health and disease. By exploring the healthy function of organ systems, students learn how and why things go wrong—that is, when illness or injury occurs. This course covers organ systems including the circulatory/respiratory, digestive, musculoskeletal, integumentary, nervous, endocrine, reproductive, and immune, with a focus on understanding how the various systems work together to maintain homeostasis.

#### Environmental Science: Global Concerns / Local Impacts Grade 11-12 | Credit: 1

Environmental degradation on a local, state, and global level may be among the most serious crises of our times. This course on a nearby ecosystem-the Zebedee Wetland—broadens student understanding of limnology (fresh water aquatics), soil biology, air quality, biotic and abiotic factors in these ecosystems, as well as the impacts of human activity and development on watershed ecosystems. Students engage in on-site data collection to analyze and assess the current health of the wetlands. Topics covered include terrestrial and freshwater ecosystems, air quality and pollution, geology, biochemistry of soils, and current global issues.

# ZOOBOT!—The Lives of Animals and Plants

#### Grade 11–12 | Credit: 1/2 or 1

Zoobot is a combination of two halfblock courses: botany (the biology of plants) and zoology (the biology of the animal world). They can be taken individually for .5 credit), or together (1 science credit). Zoology: Animals are on the move: predators hunting prey, armies conquering new territory both on land and in the water. They have survived for hundreds of millions of years. Their survival has been ensured by reproducing in a way that allows them to morph into new forms, forever adapting to a changing environment. They comprise the kingdom of Animalia, and they include all of us.

That's zoology!

Botany: Plants face the same sort of challenges that animals confront throughout their lives. In order to survive, plants too, have to move. Plants invade territory, they fight one another, and they have to compete for mates. Some plants have developed traps to capture and devour invaders from the animal world. Plants simply operate on a different time scale then animals, making it harder for us to see all this action. Through your study of botany, you will see this kingdom of plantae differently than you have ever seen it before.

The predator-prey relationships within these two worlds have maintained their balance for millions of years. That balance is now shifting due to the dominance of one species in the animal world: homo sapiens; humans. We will explore the inter-relationship between humans and the rest of the living world by reading excerpts from Amy Stewart's *Wicked Plants*, and *The Animal Dialogues*, by Craig Childes, and by drawing from David Attenborough's documentaries of the plant and animal kingdoms.

#### Forestry

#### Grade 11–12 | Credit: 1

In Forestry, students study the forest as a biological community, covering ecological concepts such as energy flow, forest nutrition, nutrient cycling and decomposition, and the interrelationships between trees and other organisms comprising the community. Students examine the concepts of disturbance, succession, population dynamics, biological and ecosystem diversity, and wildlife habitat management. Students also study ecologically based manipulations of forests to achieve desired management objectives; develop and apply silvicultural prescriptions to timber and non-timber forest benefits; and learn about soil, forest health, and biodiversity.

#### Horticulture

#### Grade 11–12 | Credit: ½

This is an introductory course in basic horticulture designed for the student who enjoys watching things grow. The course covers methods and principles of organic gardening, plant propagation, and greenhouse management. It will also instruct students in the proper use of fertilizer; biological control of plant pests; small fruit gardening; lawn and turf grass management; vegetable, herb, and flower gardening; and landscape and garden design. This is a practical, hands-on class that will benefit any future homeowner, gardener, or burgeoning farmer as well as the student seeking further opportunities in the horticulture field.

#### Physics: Mechanics Grade 11–12 | Credit: 1

If something moves, it can be studied: falling objects, wind, and water currents, rockets launching into space, or cars driving down the highway or racing around a track. Forces allow objects to start and stop moving, turn, and affect other objects. Forces acting over time and distance lead to a study of energy and how it powers all the objects in our daily lives. A good background in algebra and basic trigonometry is very helpful for this course and a willingness to apply your mathematical knowledge to scientific problems and projects.

#### Prerequisite: Algebra II

# Physics: Waves, Light, Electricity, and Magnetism

Grade 11-12 | Credit: 1 A bobbing spring or a swinging pendulum begins a study of waves, which then leads to a study of sound, including the basics of music and musical instruments. You will then take this knowledge and apply it to a study of electrical current and circuits, magnetism, and finally thermodynamics. Laboratory assignments will emphasize experiments and projects that allow students to explore each of the topics in depth and allow them to further improve their scientific communication skills.

#### Prerequisite: Algebra II



## Engineering and Technology

Engineering and technology skills are critical in today's world. Beginning in grades 7 and 8, Thetford Academy students learn how to be good digital citizens and use technology safely and responsibly. In high school, students can take advantage of courses in the growing fields of robotics, cybersecurity, high-tech manufacturing, and computer science.

#### Middle School Digital Literacy Grade 7–8 | Required

In Digital Literacy, students explore what it means to be a digital citizen, expand their understanding of how digital networks and computers operate, and practice using digital tools to learn and create. The class is designed to help students become capable and thoughtful users of technology. Students will find out how long it takes a web packet to travel from Los Angeles to London, make a plan for combating cyberbullying, and learn how to spot an online scam. They'll discuss subjects such as what information should be kept private and explore some of the ways online companies use data you give them. Once a week, students will spend the class creating with technology: building

websites, editing images, creating 3-D models, coding games, animating movies, and more.

#### Introduction to Computer Science

# Grade 10–12 (Grade 9 with instructor permission) | Credit: 1

This course is designed to offer an introduction to computer science using the Python programming language. Students will learn the beginnings of computer programming along with the basic ideas behind computer science, how computers work, how the internet works, and how all this is combined to run many of our everyday devices. The material emphasizes computational thinking and helps develop the ability to solve complex problems.

Prerequisite: Pre-Algebra

#### Cybersecurity I

Grade 11–12 | Credit: See below Cybersecurity experts are in high demand all across the world. This course is designed to teach students the basics of how to protect personal, local, state, and national security with cutting-edge cybersecurity tools. Topics of study include: protecting vulnerable information and data; learning about and creating systems to deter hackers; and the basic tools and concepts of cybersecurity. The course aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.

**Note:** Cybersecurity is offered through River Bend Career and Technology Center and takes place at Thetford Academy.

**Note:** Participating students will receive one elective credit and one-half technology credit.

# STEM Internship with Hypertherm and Fujifilm Dimatix

*Grade 9–12 | Credit: See below* The STEM Internship is a fall semester program for juniors and seniors that engages students in a real-world exploration of advanced manufacturing and the inner workings of a successful business. In partnership with local companies Hypertherm and FUJI/ Dimatix, this innovative learning experience takes place primarily at the companies' headquarters.

**Note:** Participating students will receive one Math credit, one-half Science credit, and onehalf Elective credit.

STEM

"Thanks to [TA] robotics, I went to the Governor's Institute of Vermont, a summer camp for teens, where I met graduates from Worcester Polytechnic Institute, and—much to my surprise—discovered you could go to college for robotics."

> -Jonathan Leitschuh Class of 2012

# PHYSICAL EDUCATION AND HEALTH

Student wellness is an important part of academic success. TA's physical education and health curriculum focuses on the creation of lifelong habits for physical, emotional, and social well-being to support success at school and beyond. Physical Education and Health at TA helps students develop social skills through individual and team activities, and physical skills through listening, observation, and practice. A comprehensive Health curriculum teaches students to make positive, informed choices about their physical, social, and emotional health.

## Physical Education and Health

#### Middle School Physical Education Grade 7-8 | Required

Middle school students are combined to create four different sections of middle school PE. MS Physical Education focuses on developing basic skills, knowledge, and group cohesion. We do this by participating in net games, team sports, individual sports, fitness, team builders, and recreational activities. In addition the middle school students will partake in a three week health unit focusing on sexual education and sexual health.

#### Health

Grade 10 (Required) | Credit: 1/2 In Health, students are challenged to consider the physical and emotional consequences of sexual activity using class activities, literature, and class discussions. Information concerning birth control and sexually transmitted diseases is presented to facilitate a thorough understanding of responsible sexual health choices. In addition to sexual health, students are challenged to consider the physical, emotional, and intellectual consequences of substance use, as well as identify risk factors for addiction. Information about the acute and chronic effects of two specific drugs, alcohol and tobacco, is presented. Additional topics for class discussion

include addiction, family relationships, legal considerations, and life goals.

#### Lifelong Activities: Individual and Team

#### Grade 9–12 | Credit: ½

Thetford Academy offers exciting physical education experiences through a wide variety of activities. These activities challenge the individual to master fundamental motor skills; develop coordination and overall fitness; maintain or increase positive attitudes toward peer groups; practice social skills necessary for participating in individual and team activities; demonstrate physical skills based on observation and listening to instructions; understand physical, mental, and emotional health; and increase knowledge and skills to maintain a healthy lifestyle.

Physical Education activities offered in the fall and spring semesters: flag football, archery, soccer, ultimate frisbee, disc golf, basketball, badminton, pickleball, volleyball, nitro ball, team handball, indoor soccer, and a fitness unit.

### Aerobic Fitness

Grade 10–12 | Credit: ½ In this course, students utilize the Thetford Academy fitness room to create individual plans to increase muscle strength, cardiovascular endurance, flexibility, coordination, and agility. Students are taught the proper techniques for using free weights, developing a weight training program, and reducing the risk of injuries. The course also provides opportunities for student athletes to train for a specific sport, allowing them to perform at an optimal level.

#### **Yoga and Mindfulness** *Grade* 9–12 | *Credit:* ½

Finding personal balance in a busy life is important for everyone. The practice of yoga and mindfulness can be powerful tools every student can learn and practice as lifelong skills. It can also help them achieve balance during the school day and beyond. This course focuses on teaching students to develop a stronger, more flexible body while learning and practicing breathing and relaxation techniques designed to manage stress.

Middle School Outdoor Leadership See page 35 for full description.

Outdoor Leadership and Recreation See page 35 for full description.

# OUTDOOR LEARNING AND LEADERSHIP

With the school's vast natural resources and the diverse ecosystems of the Upper Valley, students at Thetford Academy have unparalleled opportunities for place-based, experiential learning. With a large school garden, acres of forests and miles of recreational trails, a sugar bush and sugar shack, TA's campus is the perfect place for students to create connections with the natural world. Leading the way in outdoor learning and leadership, TA's Thetford Outdoor Progam (TOP) provides year-round opportunities for inspiration, exploration, and recreation in the outdoors.

Integrated across TA's curriculum, TOP embeds outdoor education into all academic disciplines from science to English, art to mathematics. TA students might dive into the deep canon of nature writing or measure trees to understand geometric principles. Students can study the chemistry of a maple tree's sap or the science and engineering involved in the sugaring process. With every outdoor unit, TOP encourages students to create connections with the natural world.

For students who want a deeper, outdoor learning experience, TOP offers a half-day, semester-long environmental studies and outdoor education course. For two full blocks a day, students in this course can take their learning outside and earn Science, English, and elective credit through hands-on, outdoor education experiences. The course, in addition to its academic components, encourages mindfulness and an immersion in the natural world.

The Thetford Outdoor Program offers students year-round opportunities for outdoor exploration and recreation. During the school year, students can participate in weekend excursions nearby—hiking, camping, rock climbing, mountain biking, or canoeing. In the summer months, TOP shifts to more intensive, multiday outdoor adventures designed to build students' confidence and leadership skills. Students can spend a week canoeing the Connecticut River or the wilds of Quebec, take a backpacking trip along the Appalachian Trail, or travel to the Adirondacks for a rock climbing adventure.



## **Outdoor Education**

#### Middle School Outdoor Leadership

Grade 7-8 | Elective Rotation In this course, students learn basic outdoor skills, which may include reading maps, navigating by compass, building shelters and fires, knot tying, tree identification, trail improvement, and risk management. Some reading is required. The course is designed to support middle school students in the development and application of leadership and teamwork skills. Throughout the course, students learn and practice positive group interaction, respect, inclusiveness, preparedness, and informed, thoughtful decision-making.

#### Outdoor Leadership and Recreation

Grade 9–12 | Credit: ½ (PE) The focus of this class will be on building our physical and social health by engaging with recreational activities such as: tracking and animal behavior, disc golf, hiking, orienteering, snow shoeing, cross country skiing and more. The class will also focus on shelter building, trail maintenance, and fire building. We will explore and provide opportunities to be a leader while working in small groups to complete challenges on the low ropes course. This class will primarily take place outdoors.

#### Environmental Studies and Outdoor Education

Grade 10–12 | Credit: See below Environmental Studies and Outdoor Education is a half-day, interdisciplinary course covering a wide range of important environmental topics. The course takes advantage of Thetford Academy's vast natural resources to engage students in hands-on, outdoor learning and scientific exploration. Students in the course will develop strong ecologic literacy and an understanding of their role in–and connection to–the natural world.

Students in Environmental Studies will use field experiments and independent study to take a deeper look at the natural history, ecology, and biologic processes of our local, regional, and global environment.

**Note:** The course involves embedded work in English and Science over two semesters (four blocks). Students will earn two Science credits, one English credit, and one elective credit. Students can enroll for one semester and receive one Science credit, one-half English credit, and one-half elective credit. Sophomore students who enroll for the whole school year will receive Biology credit.

#### **Forestry** See page 29 for full description

**Horticulture** *See page 29 for full description* 

**Food Justice** *See page 20 for full description* 

**Timber Framing** See page 13 for full description

ZOOBOT!—The Lives of Animals and Plants See page 28 for full description

**Cooking for Health** *See page 14 for full description* 



# ADVANCED COURSEWORK and EXTENDED LEARNING

Thetford Academy offers a variety of opportunities for students seeking advanced and extended academic experiences. Students can opt for honors credit, take college classes, pursue programs beyond the walls of Thetford Academy, and even design their own course of study.

Honors courses are offered at the high school level across the curriculum. Designed to challenge advanced learners, these courses prepare students for college-level work. Honors class examples include Human Nature in Literature, Honors American Literature, Algebra II Honors, Calculus, Advanced Chemistry, Advanced Biology, Advanced French, and Advanced Spanish.

Students can also pursue **embedded honors** in a variety of other core classes. Students contract with their teachers to complete a rigorous program of study that supplements the standard curriculum. Upon successful completion, the honors credit is noted on a student's transcript.

TA students may dive deeply into their academic interests by taking a course at an accredited college or university; college courses earn elective credit at Thetford Academy. Vermont residents can pursue the state's **Dual Enrollment program**, which provides juniors and seniors access to two college courses with participating colleges and universities at no charge. Another opportunity is **Vermont's Early College option**, which allows 12th grade students to spend their senior year fully enrolled in a Vermont college program.

Currently on hold (due to the pandemic), is the **Dartmouth College Special Community Student Program** designed for juniors and seniors in the Upper Valley seeking academic courses beyond the level offered at their high school. TA will keep students informed of program status and availability.

The **STEM Internship** is a fall semester program for juniors and seniors that engages students in a real-world exploration of advanced manufacturing and the inner workings of a successful business. In partnership with local companies Hypertherm and FUJI/Dimatix, this innovative learning experience takes place primarily at the companies' headquarters. Program participants earn one math credit, one-half science credit, and one-half elective credit.

The **Environmental Studies & Outdoor Education class** is an immersion experience for students interested in a deeper exploration of the natural world. This half-day, interdisciplinary course of study weaves together

the disciplines of natural history, ecology, biology, literature, and outdoor education. The class takes place primarily outdoors. The program is open to students in grades 10–12 and participants earn science, English, and elective credits.

Students can also design their own course of study called the **Challenge Course**. This option allows students to create and explore a topic of interest in collaboration with a faculty mentor. Students guide their own learning and are required to give a final presentation about their new skills and understandings at the end of the semester.

Thetford Academy also works with students who wish to pursue off campus programs as part of their high school career. Common experiences include **semester schools** like the nearby Mountain School and Maine Coast Program at Chewonki, as well as the Alzar School and High Mountain Institute out west. Some students also pursue **study abroad** opportunities.

#### **Related Classes**

#### **Challenge Course**

#### Grade 10–12 | Credit: See below

A Challenge Course gives students the opportunity to dive deeply into a topic of interest. Any topic not currently offered in TA's curriculum will be considered for approval. Students design and plan their own course of study, while gaining experience in time and task management, project planning, self-direction, and effective communication. All Challenge Course students are required to give a final presentation about their project.

For more information, and to begin the process of writing a Challenge Course proposal, students should see their school counselor.

#### Cybersecurity I

See page 30 for full description.

#### STEM Internship with Hypertherm and Fujifilm Dimatix

See page 30 for full description.

#### **Environmental Studies and Outdoor Education**

See page 37 for full description.



# TECHNICAL EDUCATION

Thetford Academy partners with River Bend Career and Technical Center (RBCTC) and Hartford Area Career and Technology Center (HACTC) to offer technical education.

TA juniors and seniors are eligible to apply for admission to all programs at River Bend Career and Technical Center or some programs at HACTC. Most courses are offered in a two-year sequence, with advanced work and specialization offered in the second year of study. Three credits are granted for successful completion of a one-year technical program.

All two-year programs offer one program-specific embedded credit toward graduation requirements in English, Science, Math, Art, or Social Studies. Upon successful completion of both years of a career program, students are eligible for six credits–five elective credits and one in the embedded academic area.

Technical programs available at River Bend Career and Technical Center include specialization in: 21st Century Media and Design, Automotive Technology, Heavy Equipment, Teacher Education, Culinary Arts, Diversified Agriculture and Natural Resources, among others. Visit the RBCTC website for more information about courses of study.

# STUDENT SUPPORT and ACADEMIC SERVICES

#### **COUNSELING OFFICE**

All students are assigned a counselor who will provide individualized support throughout their years at TA. Counselors at TA help students use school and community resources to support their academic goals as well as their social and emotional well-being. Counselors play a key role in supporting a student's journey toward their post-secondary goals. They assist with the course selection process, college and career planning, and pursuit of extended learning opportunities such as internships, challenge courses, technical programs, and semesters away.

The counseling department also works closely with advisors and grade-level teams to collaborate on tracking and supporting students' progress each quarter. Parents are encouraged to communicate regularly with their student's school counselor by phone, email, or visits to the Counseling Office. The department's website provides resources on counseling events, career planning, financial aid, and family transition issues.

#### LIBRARY

With its central location in the White Building, Thetford Academy's library is the hub of the school. Its appealing, light-filled space with mountain views provides an inspirational academic space for individual and group study. The library is home to a vast collection of books, magazines, and digital resources, and guides students to become savvy locators, users, creators, and sharers of information. The librarian/media specialist serves as a resource for students and teachers alike.

#### **STUDY CENTER**

Thetford Academy provides supervised study in the Study Center program, which affords students the space to complete assignments and exercise the mind. Students are expected to arrive prepared with the necessary materials for using the time productively.

#### **HEALTH OFFICE**

The Thetford Academy Health Office, staffed by a registered nurse, is dedicated to helping students achieve their highest potential by staying physically and mentally healthy. The school nurse focuses on the promotion of wellness and the prevention of illness in the school community.

# SPECIAL EDUCATION

The Special Education Department at Thetford Academy provides a wide range of support services, helping every student fulfill their academic potential.

In accordance with the Vermont Agency of Education Special Education Regulations, Thetford Academy serves students from all categories of disability whose stated Individual Education Program (IEP) goals, objectives, and services can be met within the Academy setting.

Special Education at TA includes a continuum of services, from consultation, referral, and evaluation through case management, classroom accommodations, specialized instruction, and individualized programming. The goal of the Special Education department is inclusion, and its faculty and staff work in close collaboration with teachers, grade-level teams, the Student Support Team, and the Academic Advisory Council toward a positive, well-rounded, and successful student experience. Special Education faculty and staff also assist students with transition planning as students enter the TA community and as they plan for post-graduate life in college or community settings.

#### **LEARNING CENTER**

The Learning Center at Thetford Academy is a home base for TA's special education program. Comprised of a suite of classrooms and office spaces, the Learning Center is dedicated to optimizing the learning experience for TA students. Students with Individual Education Programs (IEPs) receive specifically designed instruction as part of their daily schedule, and students with 504 plans may also be scheduled for support time as well. The diversity of students and the collaborative environment of our Learning Center spaces create a user-friendly, integrated environment for students with exceptional learning needs.

# **BE PART** of our **TRADITIONS**

Founded in 1819, Thetford Academy has established traditions—some more than 100 years old—that are as unique as our school community and integral to the school's culture.



## **Mountain Day**

Mountain Day is a younger tradition, but one that's built to last. Every year, each TA class hikes a different mountain—one for every grade—visible from campus. Scheduled for mid-September, Mountain Day not only takes advantage of Vermont's spectacular autumn weather but also unites the school's new students and classes together for a positive, team-building adventure.



## **Founders' Day**

Every February, TA celebrates its birthday on "Founders' Day." During this school wide, daylong event, classes compete amiably in a variety of fun contests and activities (think homemade sleds and three-legged races). It is also a time when faculty, staff, students, alumni, and community members come together in a formal ceremony to honor and reflect on the school's history and mission, and the contributions of its founders and supporters.



## **Operation Day's Work**

Operation Day's Work (ODW) is a global, student-led organization that encourages leadership, responsibility, and volunteerism among high school students. Each year, schools participating in ODW choose a project to champion that supports youth and education in a developing country. Student leaders organize an all-school, community-wide work day to raise money for their chosen initiative. Thetford Academy is one of ODW-USA's founding schools and has participated in the program for over 20 years.

# CONTACT INFORMATION

304 Academy Road Thetford Center, VT 05075 802-785-4805 thetfordacademy.org

☑ ♥ @thetfordacademy f @ThetfordAcademyVT

Thetford Academy is an approved independent school with the Vermont Agency of Education and is accredited by the New England Association of Schools and Colleges (NEASC).

Thetford Academy ensures equal employment, educational opportunities, and affirmative action regardless of race, color, creed, disability, national origin, and gender identity, in compliance with all federal laws.

#### **Bri Barnes**

Director of Athletics and Activities 802-785-4805 Ext. 266 bri.barnes@thet.net

#### **Carrie Brennan**

Head of School 802-785-4805 Ext. 211 carrie.brennan@thet.net

#### **Molly Dugan-Sullivan**

Enrollment Coordinator 802-785-4805 Ext. 202 molly.dugan-sullivan@thet.net

#### Scott Ellis

Thetford Outdoor Program Coordinator 802-785-4805 Ext. 259 scott.ellis@thet.net

#### Gloria Konicki

Office Administrator 802-785-4805 Ext. 201 gloria.thurston.konicki@thet.net

#### Siobhan Lopez

Dean of Students 802-785-4805 Ext. 218 siobhan.lopez@thet.net

#### **Mark Pichette**

Director of Counseling 802-785-4805 Ext. 225 mark.pichette@thet.net

#### **Deb Sanders-Dame**

Director of Special Education 802-785-4805 Ext. 214 deb.sanders-dame@thet.net

#### **Tony Strat-Cortez**

DEI Coordinator 802-785-4805 Ext. 294 tony.strat-cortez@thet.net





304 Academy Road Thetford Center, VT 05075 802.785.4805 thetfordacademy.org @ \$\not @ thetfordacademy
f @ThetfordAcademyVT

# FUN FACTS *about* THETFORD ACADEMY

