



Upper School Course Offerings

Academic Year 2021-22

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CONTENTS

LETTER FROM THE HEAD OF SCHOOL.....	2
MISSION AND GUIDING PRINCIPLES	3
OVERVIEW.....	4
GRADUATION REQUIREMENTS.....	5
ACADEMIC POLICIES.....	6
ENGLISH.....	9
MATHEMATICS AND COMPUTER SCIENCE.....	13
HISTORY AND SOCIAL SCIENCES.....	17
SCIENCE.....	22
WORLD LANGUAGES AND CULTURES	25
SIGNATURE PROGRAMS.....	27
VISUAL AND PERFORMING ARTS.....	32
WELLNESS AND PHYSICAL EDUCATION.....	39
INTENSIVES.....	40

LETTER FROM THE HEAD OF SCHOOL

Thaden Families,

Over the past year, our faculty members have worked creatively and collaboratively to prepare an engaging set of course offerings for our Upper School students in 2021-22. As you will see, the curricular pathways through our academic program have become more robust as our faculty and enrollment continue to grow.

For all of their variety, these pathways lead to the same place: independence. Whether our students are reading *Macbeth*, exploring the culinary and cultural roots of the American South, testing the laws of physics, or writing and staging a one-act play, they are learning how to think, speak, and act for themselves. At its core, a Thaden education is designed to develop the critical thinking skills our students need to be discerning consumers of information and citizens who have the courage of convictions built upon free inquiry and civil debate.

Of course, the value of a Thaden education ultimately resides in the quality of the faculty members who ignite in our students the passion for discovery and learning that will propel them on the path to independence. We have never been stronger in this regard as our students learn and grow under the guidance of masterful educators recruited from all parts of the United States and many parts of the world.

This is education for democracy and for life!

Clayton K. Marsh
Founding Head of School

MISSION AND GUIDING PRINCIPLES

Our mission is to provide a balanced and challenging education that ignites in our students a passion for discovery and learning, prepares them to succeed in college, and inspires them to lead lives of integrity, purpose, and responsible global citizenship.

In pursuing our mission, we are guided by these principles:

- The diversity of a school is essential to the quality of education that it provides.
- In a small school, students are better able to form close relationships with teachers that will give them a strong sense of belonging, self-confidence, and responsibility.
- There is an art in masterful teaching, which requires resources, mentorship, and recognition.
- A well-balanced curriculum empowers students:
 - To think ethically, critically, and creatively about global issues and their local manifestations;
 - To see connections among the humanities, sciences, and mathematics as integrative disciplines in the search for knowledge, meaning, and beauty;
 - To build coherent, compelling, and innovative arguments;
 - To establish their voice in the world by writing and speaking well and expressing themselves creatively;
 - To work independently and collaboratively.
- Activities outside of the classroom (such as acting in a play, competing on a team, or working on a sustainability project) give students essential opportunities to develop as leaders, volunteers, and contributors to the life and spirit of the greater community.
- A school must create a safe and healthy environment where students have time and space for reflection, freedom to make important decisions, and opportunities to learn from mistakes.
- The harmony of a school community depends on a shared commitment to honesty, compassion, and fair play.

OVERVIEW

Giving equal emphasis to the sciences and humanities, Thaden School's graduation requirements are designed to ensure that students build a strong and balanced foundation across all major disciplines. While our curriculum respects the boundaries of the core academic disciplines so that students understand how scientists, artists, mathematicians, historians, and others create knowledge and understand the world, the course of study within a given discipline often intersects with other disciplines in ways that help students discover larger patterns and explore broad topics and questions from multiple angles.

Our commitment to interdisciplinary problem solving also finds rich expression within the context of our three signature programs – Meals, Reels, and Wheels – where students combine multiple fields of study and engage with community partners in ways that foster a strong sense of civic responsibility. Intensives and other forms of independent study as well as Community-Based Learning (CBL) courses provide further opportunities for students to form and investigate their own questions from many perspectives.

While our curriculum committee and academic leadership oversee the development of our academic program to ensure consistency and coherence, we leverage the special interests and expertise of our nationally recruited faculty by giving them considerable discretion in the design of their courses. Our faculty use a wide range of pedagogical methods – from seminar-style discussions to community-engaged projects – that collectively enhance students' versatility as problem solvers who can work independently and collaboratively in a rapidly changing world.

By virtue of our indexed tuition program and small class sizes, we also offer a classroom experience in which students of many interests, aspirations, and backgrounds share and explore different points of view under the guidance of nurturing, even-handed educators. As our students discover their common ground and learn from their differences, they grow better prepared for life and citizenship in a nation founded upon a shared commitment to the value of civil debate and diversity of thought.

Our approach to the assessment of academic work is designed to foster a “growth mindset” and resilience in the face of challenge. In particular, our standards-based grading practices illuminate the path to self-improvement by helping students focus on the skills and habits essential to their success at Thaden and beyond. Given our small class sizes, we also expect faculty to provide their students with detailed written feedback and personal encouragement that builds their self-confidence and ignites a lifelong passion for learning and discovery.

GRADUATION REQUIREMENTS

Thaden School’s graduation requirements are designed to ensure that all students build a strong and balanced foundation across all major disciplines, while giving them the freedom to explore and develop specific interests as they advance in their course of study.

Program	Credits	Notes
English	4	The required sequence in Grades 9-12 (English I, II, III, IV) fulfills this four-credit requirement.
Mathematics and Computer Science	4	The required sequence in Grades 9-11 (Algebra I-II and Geometry) fulfills three credits of this four-credit requirement. Courses taken in Middle School may also count for up to one credit with approval of the Upper School Director.
History and Social Sciences	3	The required sequence in Grades 9-11 (Modern World History, Government and Economics, U.S. History) fulfills this three-credit requirement.
Science	3	The required sequence in Grades 9-10 (Inquiries in Biological and Environmental Sciences, Inquiries in Chemical and Physical Sciences) and one additional year-long course fulfills this three-credit requirement.
World Languages and Cultures	3	Students must study the same language for at least two consecutive years in the Upper School. Foreign language study in Middle School may count for up to one credit with approval of the Upper School Director.
Signature Programs	2	All students new to Thaden School must take a required introductory course before taking elective courses in the Signature Programs.
Visual and Performing Arts	2	Students may choose elective courses in three areas: music, theater, and visual art. Courses in dance will be offered in future years.
Wellness and Physical Education	2	The Wellness requirement is fulfilled by taking a one-trimester course during Grades 9 and 11. The Physical Education requirement is fulfilled by taking four one-trimester courses (one each year) or by participating on a Thaden athletics team.
Additional Courses	3	This requirement may be fulfilled by taking elective courses in any field of study at Thaden School
Total	26	To fulfill the total graduation requirements of 26 credits, students must carry a course load averaging 6.5 courses per trimester. Students may take no less than six courses and no more than seven courses during any one trimester.

+ While fulfilling these requirements, students must also take at least three one-trimester courses that carry the Community-Based Learning (CBL) designation.

+ In most cases, one credit equals three trimesters of study. The number of credits required represent the minimum that a student must earn to fulfill that requirement. Thaden School’s graduation requirements exceed Arkansas state standards.

ACADEMIC POLICIES

Course Selection

Thaden School's upper school course selection process will begin on March 1, 2021. Students start the process by referring to the *2021-22 Upper School Course Offerings* and setting their long-range academic goals as well as their specific selections for the upcoming year. During this planning phase, students are encouraged to consult with their parents, advisor, college counselor, teachers, and the associate and divisional directors.

When students have identified their desired course of study for the upcoming year, they should complete the Course Selection Form through the Portal. Course selections are due on March 10, 2021.

Advanced Coursework

At many schools, especially those serving students with a broad range of academic trajectories and needs, courses that are specifically designed to prepare students for college often carry the Advanced Placement (AP) designation in order to signal their academic rigor. Thaden has not adopted an AP curriculum because our required course of study, consistent with our mission, is designed to prepare students for success at even the most academically challenging colleges and universities. Many of our courses have distinctive features that set them apart as especially challenging and comparable to college level work. These more advanced course offerings are denoted on the Thaden transcript with an asterisk (*).

Independent Study

Students who have exhausted Thaden School's course offerings in a particular area of study may submit a proposal for an independent study, which they complete in partnership with a faculty mentor.

Senior Thesis

In the spring of the Grade 11 year, a student may submit a proposal for a senior thesis project. Senior theses are an opportunity to pursue original research, in partnership with faculty mentors. Students may develop their projects from ideas sparked by past courses or pursue topics of long-standing personal interest.

Course Add/Drop Policies

Thaden School conducts its course registration process prior to scheduling course meeting times for the following academic year with the goal of accommodating students' preferences to the fullest extent possible. Once the schedule has been constructed, changes may be difficult or even impossible, and students may be precluded from altering their schedule due to conflicts, class sizes, or other factors. The policies and procedures for adding and dropping courses are set forth below.

Adding Courses

Upper School students who are enrolled in fewer than seven courses may request to add additional courses within the first two weeks of the year for year-long courses and the first week of the trimester for trimester-long courses.

To initiate the process for adding a course, students should complete the Course Add Form (available on the Portal and in the Main Office) by indicating the course they wish to add and obtaining the signed approval of their advisor, parent or guardian, and the relevant course instructor. Course Add forms should then be submitted to the Dean of Faculty. The Director of Upper School and Dean of Faculty make the final decision.

Students who add courses are responsible for making up all work assigned prior to their enrollment.

Dropping Courses

Upper School students must enroll in a minimum of six courses per trimester. Dropping a course is only allowed in cases where a student discovers that their overall course load is too heavy or there is a clear, documented reason why the course is not a good fit for the student. Thaden School does not allow students to change or drop courses to accommodate preference for a teacher, time of day, or sports and other outside activities.

To initiate the process for dropping a course, students should complete the Course Drop Form (available on the Portal and in the Main Office) by indicating the relevant course and obtaining the signed approval of their advisor, parent or guardian, and the course instructor. Course Drop forms should then be submitted to the Dean of Faculty, who schedules a meeting with the student, his or her advisor, and, when applicable, the relevant instructor to discuss the reasons for wanting to drop the course. The Director of Upper School and Dean of Faculty make the final decision.

A student who drops a course receives no credit for that course, and the course does not appear on the student's transcript.

Grading and Assessment

Thaden School faculty use a system called standards-based grading (SBG). In this system, students are evaluated based on their proficiency in meeting clearly articulated course objectives. Instead of receiving a single overall grade, SBG breaks down subject matter into smaller “learning targets.” We employ standards-based grading practices because the learning goals and ratings provide students with more specific information about their progress, above and beyond what a letter grade can reveal.

To communicate students’ standards-based ratings, Thaden School opens the gradebook at the mid-point of each trimester and releases progress reports at the end of each trimester. Upper School students receive ratings on their progress in meeting specific learning goals for each course as well as letter grades. In addition, students receive narrative comments from their teachers twice a year and a personal letter at the end of the year, written by their advisor or another member of the faculty, that reflects on their growth.

The specific learning goals are divided into two categories:

Skills

- Factual Knowledge: accurately recalls and uses factual information and vocabulary
- Conceptual Understanding: grasps fundamental ideas, constructs, frameworks, and theories
- Procedural Technique: understands and follows disciplinary methods and processes
- Critical Thinking: effectively analyzes complex problems using factual knowledge, conceptual understandings, and procedural techniques
- Communication: clearly and/or persuasively articulates ideas and arguments with appreciation for the audience and context
- Creativity and Originality: generates and advances novel ideas, products, or points of view

Habits

- Preparation: brings relevant materials to class and effectively manages time
- Initiative and Perseverance: actively engages in the learning process and demonstrates an eagerness to improve
- Collaboration: works well in diverse groups to achieve a common goal

While students may cultivate many, if not most, of these Skills and Habits in each of their courses, progress reports identify and rate only the goals that a teacher deems most important in the context of a given course. A student's progress with respect to each goal is rated numerically on a four-point scale, indicating the degree to which the student has progressed in meeting grade-level expectations: (1) Beginning; (2) Approaching; (3) Meeting; (4) Exceeding. The absence of a rating next to a certain Skill or Habit indicates that not enough information or data has yet been collected to provide meaningful feedback.

Thaden uses a decaying average to calculate students' overarching scores in each skill and habit. The decaying average formula is a calculation method that places more weight on the most recently scored material, allowing for a better measure of growth by rewarding students for how far they have come regardless of where they started. To translate ratings into letter grades, faculty take the average of a student's overall rating in each of the course's identified transdisciplinary skills – only skills, not habits – and then use the following conversion scale:

A	>3.5	C+	2.25-2.49
A-	3.25-3.49	C	2.0-2.24
B+	3.0-3.24	C-	1.75-1.99
B	2.75-2.99	D	1.5-1.74
B-	2.5-2.74	NC (no credit)	<1.49

ENGLISH

Required Courses

English I: Journeys and Transformations

This year-long course introduces students to the study of literature as an academic discipline. As students read texts in many forms and from many periods and places, such as Homer's *The Odyssey*, Adichie's *Purple Hibiscus*, and Portis' *True Grit*, they investigate the importance of storytelling in the human experience through the lenses of journeys and transformations. Using annotation and other close-reading strategies, students deepen their understanding of the course texts. In addition, they write numerous analytical paragraphs and three extended essays, while also exploring their own journeys and transformations through autobiographical and creative writing assignments. Seminar-style discussions develop students' oral presentation skills and their ability to listen actively and contribute, one of the hallmarks of a Thaden education.

Required for Grade 9

1 Credit

Prerequisites: None

English II: Individuals and Communities

This year-long course builds on the reading, writing, and thinking skills students develop in English I, applying them with greater sophistication and to more complex texts. Students read books such as Satrapi's *Persepolis* and Shelley's *Frankenstein*. Focusing on individuals and communities, they investigate fundamental questions related to the formation and negotiation of one's identity relative to the status quo. Through reading, writing, and critical conversations, students explore how one becomes oneself; how society shapes an individual; how societies can be just or unjust; and how individuals contribute to the formation and preservations of just societies. These questions – and many more – emerge through textual encounters that span periods and genres, from graphic memoir and horror to fabulism, realism, and bildungsroman. While students continue to work on their writing at the paragraph level, their focus is primarily on extended pieces, including four major papers and creative and reflective responses.

Required for Grade 10

1 Credit

Prerequisites: None

English III-A: Money and Power

This year-long course uses literature as a lens to explore the roles of money and power in the human experience. Students read works such as Kafka's *Metamorphosis*, Garcia Marquez's *Chronicle of a Death Foretold*, Heaney's translation of *Beowulf*, Shakespeare's *Macbeth*, Wright's *Native Son*, and Morisseau's *Pipeline*, along with selected poems and short stories. These texts raise fundamental questions about how money and power reveal and shape the human heart. What do people truly value and deeply desire? What forces influence those yearnings? To what lengths will individuals go to get what they want? Is it true that "absolute power corrupts absolutely" and "the love of money is the root of all

evil?” Is it possible to have great wealth and great power, yet be *good*? These questions are more than literary hypotheticals. They have shaped our world for centuries. As students develop thoughts around these questions, they hone their writing skills by crafting extended argumentative essays that analyze text and communicate complex ideas clearly. Students also spend significant time writing personal essays in preparation for the college application process.

Required for Grade 11 (students must enroll in English III-A or B)

1 Credit

Prerequisites: None

English III-B: Love and Loss

This year-long course uses literature as a lens to explore the roles of love and loss in the human experience. As any student of literature knows, these two words are often connected. So many books are about love, and so many books end in death. Why? And how should we respond? To explore these questions, students read works such as Rhys’ *Wide Sargasso Sea*, Garcia Marquez’s *Chronicle of a Death Foretold*, Shakespeare’s *Othello*, Achebe’s *Things Fall Apart*, and Highsmith’s *Strangers on a Train*, along with selected poems and short stories. These texts all explore the multifaceted nature of love: its beauty and darkness, its power to redeem and destroy. And these texts all grapple with the reality that everything we love will die. These concepts are more than literary hypotheticals. They are fundamental to the human experience. As students develop thoughts around these concepts, they hone their writing skills by crafting extended argumentative essays that analyze text and communicate complex ideas clearly. Students also spend significant time writing personal essays in preparation for the college application process.

Required for Grade 11 (students must enroll in English III-A or B)

1 Credit

Prerequisites: None

English IV-A: Tragedy

Ancient Greek tragedian Aristotle once defined tragedy as “an imitation of life.” This year-long senior English course is the study of the tragic tradition in literature. The course studies the evolution of tragedy, considering famous tragic works such as Sophocles’ *Oedipus Rex*, Shakespeare’s *Hamlet*, Hardy’s *Tess of the d’Urbervilles*, Wright’s *Native Son*, and Shamshie’s *Home Fire*. As students study these works, they continue to hone their analytical reading and writing skills in preparation for college. They also explore tragedy’s role in the human experience. This course probes questions such as: What is tragedy and what is its artistic purpose? To what extent does tragedy shape society? How has it changed over time? And, perhaps most importantly, if life is full of pain, why do we need to experience it in art?

Required for Grade 12 (students must enroll in English IV-A or B)

1 Credit

Prerequisites: None

English IV-B: Comedy

Erma Bombeck, a 20th century American humorist, once said, “When comedy goes, there goes civilization.” This year-long senior English course is the study of the comic tradition in literature. The course studies the evolution of comedy, considering famous comedic works such as Chaucer’s *Canterbury Tales*, Austen’s *Pride and Prejudice*, Vonnegut’s *Slaughterhouse 5*, and Beatty’s *The Sellout*. As students study these works, they continue to hone their analytical reading and writing skills in preparation for college. They also explore comedy’s role in society. This course – ironically enough – takes Bombeck’s quote seriously by asking questions such as: What’s funny? Why do we laugh? To what extent does comedy shape and critique society? How has comedy changed over time? What can it do that tragedy cannot? And, perhaps most importantly, why do we need it?

Required for Grade 12 (students must enroll in English IV-A or B)

1 Credit

Prerequisites: None

Elective Courses

Critical Reading and Writing

This trimester-long course introduces students to critical reading and writing strategies. Students learn and have opportunities to practice skills that lead to success in their upper school humanities courses. Depending on the specific needs of those enrolled, they may be exposed to reading-related topics ranging from phonics and fluency to annotation and analysis. Writing support includes a focus on developing complete and varied sentences, paragraph structure, and essay composition.

Open to Grades 9-12; Recommended in Grade 9

1/3 Credit

Prerequisites: None

The Modern Indian Novel*

This trimester-long course focuses on contemporary literature from India, currently the world’s most populous democracy. Students consider how Roy’s *The God of Small Things* and Rushdie’s *Midnight’s Children* might bear witness to the transformations unfolding in modern India. Through its central novels and accompanying literary criticism, the course examines how writers, essayists, and filmmakers represent historical events such as the Indian independence struggle, the partitioning of India and Pakistan, women’s rights, religious conflicts (“communalism”), and caste politics. With an eye toward university-level research, argumentation, and sentence mechanics, students explore the course essential questions and texts through multimodal assignments and literary essays.

Open to Grades 11-12

1/3 Credit

Prerequisites: English I and II

Strangers in a Stranger Land: Literature of Immigration*

Over a century ago, twenty million people made their way to the United States in the middle of the greatest wave of immigration this country had yet seen. Since then, the United States has become a refuge, workplace, and home to millions of immigrants, documented and undocumented, from countries near and far. In this trimester-long elective, students examine how these newcomers, now and in decades past, negotiated conceptions of American identity even as the identity of the United States was (and is) rapidly changing. Reading essays, short stories, critical commentaries, and two novels, students in this course explore the common and divergent threads of assimilation across historical waves of immigration to the United States. Central course texts may include those by Richard Blanco, Willa Cather, Sandra Cisneros, Malcolm Gladwell, Maxine Hong-Kingston, Gish Jen, Dinaw Mengestu, Jacob Riis, Richard Rodriguez, and others. This course includes a community-based learning component: working with immigrant advocacy organizations in Northwest Arkansas, students develop a community anthology of immigration narratives.

Open to Grades 11-12

1/3 Credit; CBL

Prerequisites: English I and II

Writers' Room

Students experience the fast-paced environment of a television writers' room in this trimester-long course. Working collaboratively, they develop a television series from scratch. As part of this process, they create a pitch, outline, beat sheet, and character profiles, and write one episode of their series independently. These learning experiences deepen students' understandings of story structure, character development, and scene analysis. In addition, through close interpretation and evaluation of their own and others' work, students learn how to build worlds of their own and develop themes.

Open to Grades 11-12

1/3 Credit English or 1/3 Credit Reels

Prerequisites: None

MATHEMATICS AND COMPUTER SCIENCE

Required Courses

Algebra I

This year-long course emphasizes problem-solving and critical thinking while introducing students to the basic structure of algebra. With a focus on data analysis and visual representation, the course explores the real-life implications and key properties of functions and their corresponding graphs. Using data sets collected from Thaden's campus and school community as well as big data sets from sources such as the United States Census Bureau, students analyze what data reveal about the past and present. This analytical work is empowered by strategic use of algebraic tools, technology, and regular check-ups on mathematical skillsets. Through discussion, partner work, and written work, students develop their mathematical voice.

Required in Math Sequence (Grade 8, 9, or 10)

1 Credit

Prerequisites: None

Geometry

This year-long course focuses on the development of geometrical vocabulary, problem-solving skills, mathematical communication, and logical proof. Students develop these skills with a variety of physical and digital tools that allow them to apply their knowledge constructively and creatively. Students also learn to work individually and collaboratively to solve problems, convey their thought processes, and communicate their results – verbally and in writing. Activities and assignments in this course push students to recognize the wide spectrum of mathematical questions, from the abstract to the applied.

Required in Math Sequence (Grade 8, 9, 10, or 11)

1 Credit

Prerequisites: Algebra I

Algebra II

This year-long course takes students into a variety of function families and enables them to integrate algebraic symbols and equations with tabular, graphical, and algorithmic representations. Students begin the year by spiraling back to linear and quadratic functions. With these core skills, they then survey other major function families (*e.g.*, radical, rational, exponential, logarithmic, and trigonometric) and enhance their algebraic toolkit with additional models to represent real-world phenomena. The course prepares students for college entrance exams, more advanced courses in mathematics, and other math-intensive STEM courses (*e.g.*, physics and computer science).

Required in Math Sequence (Grade 9, 10, or 11)

1 Credit

Prerequisites: Algebra I

Elective Courses – Mathematics

Precalculus

This year-long course makes complex mathematical concepts accessible for algebraic, graphical, and numerical analyses. Through the study of a wide variety of functions, including trigonometric functions, students discover the similarities and differences among a variety of predictive models. In preparation for future calculus and advanced mathematics courses, students devote considerable practice to simplifying complicated expressions, equations, and functions. They also participate in group and individual exercises that develop their ability to employ algebraic skills strategically as they gather information from graphs and tables, and present and articulate their findings and rationales with confidence.

Open to Grades 10-12

1 Credit

Prerequisites: Algebra II and Geometry

Calculus I

This year-long course in differential and integral calculus arms students with the mathematical tools to explore the nature of continuous change. The course begins with advanced precalculus topics before undertaking in-depth investigations of calculus topics, including derivatives, antiderivatives, and their applications. This overview prepares students for college-level calculus by giving them ample opportunities to develop their algebraic technical skills, refine their problem-solving strategies, and utilize technology as a powerful resource in the study of mathematics.

Open to Grades 11-12

1 Credit

Prerequisites: Precalculus

Calculus II*

This year-long course is a continuation of Calculus I. Building upon the fundamental techniques of calculus, students explore additional methods of integration: L'Hôpital's rule, integration by parts, trigonometric substitution, partial fractions, and improper integrals. Additional applications include arc length, area for solids of revolution, and centers of mass. Students are introduced to techniques for analyzing infinite series and drawing conclusions about their behavior, and they also investigate parametric equations and coordinate transformation, with an emphasis on the transition between Cartesian and polar coordinates. The course concludes with a study of vector-valued functions and the geometry of space.

Open to Grade 12

1 Credit

Prerequisites: Calculus I

Statistics

This year-long course teaches students how to collect, represent, and interpret data. Students develop the skills of exploratory data analysis in real-world contexts, learn to implement statistical best practices in experimental design, examine the concepts of probability that inform statistical inference, and explore the methodology of making data-based factual claims. Students engage with the mathematical underpinnings of statistical methods and think critically about the philosophical and societal implications of data-driven decision making in the modern world.

Open to Grades 11-12

1 Credit

Prerequisites: Algebra II

Elective Courses – Computer Science

Introduction to Computer Science

This year-long introductory course provides students with an accessible point of entry into the field of computer science and a broad survey of the tools and skills involved in programming and problem-solving with computers. Students dive progressively deeper into three major domains as they design small projects to showcase their learning: (i) web development (HTML, CSS, and Javascript); (ii) block-based coding (Scratch); and (iii) text-based coding (Python). Along the way, they also improve other skills (*e.g.*, typing, self-reflection) and encounter other topics (*e.g.*, hardware, file systems) essential to success in computer science. While this course does not require prior knowledge of any programming language, it is appropriate for learners with more experience. Because of its project-based approach, students are free to challenge themselves and customize their own learning to their skill level. Students who complete this course are well prepared with the understanding and skills requisite for the more rigorous study of Python in Programming I.

Open to Grades 9-12

1 Credit

Prerequisites: None

Programming I

This year-long course provides a practical introduction to programming in the Python language. Students explore not only theoretical issues (*e.g.*, algorithms and object-oriented and functional approaches to programming) but also practical ones (*e.g.*, data types, control structures, and syntax). While gaining facility with the basic building blocks of the Python language, students work on increasingly complex and realistic programming puzzles and projects. At the same time, they pursue programming tasks of their own design, customizing their learning experiences according to their own goals and interests. Overall, the course enables students to engineer and execute simple programming tasks unassisted and to succeed in a college programming course in Python or any other programming language. While the course does not require prior knowledge of any programming language or mastery of mathematics beyond pre-algebra, students with less experience in these fields should bring a genuine desire to deepen and enhance their mathematical and computational skills.

Open to Grades 9-12

1 Credit

Prerequisites: Introduction to Computer Science or permission of the instructor

Programming II*

Building on the foundational Python skills acquired in Programming I, this intermediate year-long course in programming equips students with the basic experience necessary for designing, implementing, and maintaining larger coding projects. As students gain familiarity with new modules and acquire new coding skills by exploring collaboratively a range of intermediate programming topics (*e.g.*, GUI-development, natural language processing, machine learning, data analysis), they also work individually on independent projects that require careful planning and sustained development and that invite creative problem-solving and self-reflection. Students work closely with the instructor to identify, design, and execute projects they find interesting and meaningful, and they are expected to study other technologies (*e.g.*, web development, databases, XML, etc.) that fit their projects' needs. After completing this course, students are well-equipped for more independent study of programming at Thaden and for coursework in computer science at the college level.

Open to Grades 10-12

1 Credit

Prerequisites: Programming I

HISTORY AND SOCIAL SCIENCES

Required Courses

Modern World History, 1500-present

This year-long course introduces students to major periods, events, and concepts that shaped world history from around 1500 to the present, with an emphasis on the 19th and 20th centuries. Its learning goals prioritize equipping students with the fundamental skills of historical investigation: shaping good questions, reading primary and secondary sources, and communicating analyses and interpretations orally and in writing. Students engage both individually and collaboratively with selected primary, secondary, and non-textual sources to investigate the histories of various world regions in the modern era. Beginning with units on the Ottoman Empire and the global conflicts of the twentieth century, then shifting focus to themes of revolution and independence in multiple global contexts (including Africa, Asia, and the Americas), students practice their conceptual understanding, critical thinking, and communication skills through a variety of written assessments, reflective paragraphs, and class discussions. By engaging with the past globally, critically, and ethically, students gain an appreciation for history as shaped by the voices that tell it.

Required for Grade 9

1 Credit

Prerequisites: None

Design Thinking for Social Issues

This trimester-long course introduces students in Grade 9 to the five stages of design thinking, a methodology for creative problem solving: empathize, define (the problem), ideate, prototype, and test. Working with community partners, students apply the design thinking methodology to one of three social issues: environmental conservation, homelessness, or food insecurity. By providing students with the knowledge and skills necessary to develop an empathic understanding of issues in their home region, this course prepares students to engage in strategic action in future community-based projects in their upper school courses.

Required for Grade 9

1/3 Credit; CBL

Prerequisites: None

United States Government and Economics

This year-long course introduces students to foundational economic and governmental concepts. Using a series of case studies, students explore the relationships between the United States' political and economic institutions and consider the proper role of government in a democracy. This writing-intensive course requires students to develop and communicate their positions on complex and, at times, controversial topics by synthesizing and presenting evidence. The course also gives students opportunities to develop civic skills by applying their knowledge to real world issues.

Required for Grade 10
1 Credit
Prerequisites: None

United States History

In this year-long course, students investigate key themes and pivotal events in the history of the United States from the 16th to the 21st century. Readings include classic works of American political life, contemporary social and cultural critiques, and foundational primary and secondary historical sources. While developing the research methods and writing skills needed to produce substantial works of historical analysis, students are challenged to think critically and creatively about what it means to be an American citizen, whose voices may be misrepresented or missing, and how the complexities of the past continue to shape the course of events and the construction of historical accounts.

Required for Grade 11
1 Credit
Prerequisites: None

Elective Courses

Ancient Rome

This trimester-long course introduces students to the history, politics, and culture of Ancient Rome. Students explore the history of Rome from its mytho-historical origins (pre-753 BCE) up to the Byzantine period (4th century CE). Special attention is paid to Rome's legacy and the many ways that Roman civilization has spread and survived across time and space. The course progresses chronologically, with a different thematic focus each week. While fundamentals are anchored in weekly readings, students also learn to interpret primary sources of all sorts: texts from ancient Latin authors (in translation), inscriptions, works of art, tombstones, and even graffiti. In addition to learning the rich history of the Roman world, students also engage in historical analysis, research, and writing. This course complements the World Languages curriculum.

Open to Grades 11-12
1/3 Credit History or 1/3 Credit World Languages and Cultures
Prerequisites: None

The Culinary and Cultural Roots of the South

Neither the history of the American South nor its food is a monolith. This trimester-long course explores the many connections between Southern geography, peoples, history, agriculture, and cuisine. Using the work of chefs like Michael Twitty, Edna Lewis, Vivian Howard, and Sean Brock, students delve into the stories that define Southern foodways. For example, they investigate the influence of African American and immigrant cooks on Southern cuisine. Students use specific dishes and their variations to trace cultural diffusion throughout the region. The complexity of the South is illustrated in its recipes—from low country boils in South Carolina and chow chow pickles in Appalachia to barbeque in Memphis and fried hide pies in Arkansas.

Open to Grades 10-12

1/3 Credit Meals or 1/3 Credit History

Prerequisites: Introduction to Signature Programs (New Students Only)

Globalization and Its (Dis)Contents: Contemporary Global Issues

In the opening chapter of *Globalization and Its Discontents*, Joseph Stiglitz asks: “Why has globalization – a force that has brought so much good – become so controversial?” This year-long course equips students with the theoretical frameworks to understand globalization in its historical context while exploring the contemporary challenges posed by globalization across regions of the so-called “developing world.” Each trimester focuses on a particular region of the world, making use of primary and secondary sources, journalism, nonfiction essays, and film and media to trace the developments of those challenges and their impacts on current inhabitants in India and China, West Asia and Africa, and Latin America. Students consider the broader impacts of globalization on political stability, climate change, patterns of migration, revolutions and civil war, religious and social conflict, and human development. They engage in the material through discussion, response papers, and practice in public forms of rhetoric, including op-eds, position papers, and oral speeches.

Open to Grades 11-12

1 Credit

Prerequisites: None

Peace and Conflict Studies

Nodding to Plato, General Douglas McArthur said: “Only the dead have seen the end of war.” The presence of violence in our world seems much more assured than the presence of peace, but is this a natural state of affairs or a result of preventable human-made conflict? This trimester-long elective introduces students to the field of peace and conflict studies by equipping them with the theoretical frameworks needed to examine peace in its philosophical, historical, and sociopolitical dimensions. Students consider the promise of peace and the problems of war, tracking the historical development of these terms through history and across human societies. With a focus on the needs, prospects, and obstacles involved in developing sustainable peace worldwide, students look at both past and present efforts to build ‘negative’ peace through diplomacy, disarmament, international cooperation, and law, and ‘positive’ peace through human rights, ecological and economic well-being, and nonviolence. Along the way, students consider their own roles in local, regional, and global communities in building and promoting peace.

Open to Grades 11-12

1/3 Credit

Prerequisites: None

Powering America: Energy in History*

This trimester-long course explores US energy from the perspective of history, culture, technology, energy, and economics. Students consider how we have created and distributed energy in the past, how energy systems function in the present, and how they may evolve. The course investigates energy production, distribution, and use – including coal, oil, nuclear power, hydropower, wind- and

solar-power, and geothermal energy – along with cables, pipelines, dams, and transmission systems. Through hands-on exercises and field trips, students learn how past technological and economic choices shape our environment and energy systems and impact the sustainability of our planet and people. Possible secondary texts include Nye’s *Electrifying America*, Stradling’s *Smokestacks and Progressives*, and Jahren’s *The Story of More*. Students dive deeply into primary sources, including the design drawings and construction documents for the Thaden School campus.

Open to Grades 11-12

1/3 Credit

Prerequisites: United States Government and Economics

Sociology

This course is a year-long exploration of sociology – the study of how people interact. Students consider how class, gender, race, and religion intersect to impact an individual’s identity and social position at various scales – familial, institutional, national, and global. Through readings and seminar-style discussions, students use the works of theorists like DuBois, Weber, Bourdieu, and Coontz to develop a sense of sociology as a discipline. Assessments include media analyses, scholarly research reviews, and a subculture research study. The hope is that students discover a passion for sociology and begin to consider their own roles within society.

Open to Grades 11-12

1 Credit

Prerequisites: None

Studies in International Trade*

This trimester-long course gives students insight into the world of international trade and economics. Students grapple with weighty questions as they consider that the power of some multinational corporations now exceeds that of small countries. What levers drive international trade? How has globalization impacted comparative advantage? How will the rise of BRIC, climate change, and the pandemic impact the global economy? How do trade deficits impact currency? Students evaluate arguments for and against free trade as they explore the United States-Mexico-Canada Agreement on Trade, European Union, Association of Southeast Asian Nations, and World Trade Organization. Assessments include seminar-style discussions, a mock trade conference, and a research project investigating the international trade connections of a specific industry.

Open to Grades 11-12

1/3 Credit

Prerequisites: United States Government and Economics

20th Century American Art

This trimester-long course introduces students to several prominent movements in American artistic production throughout the 20th century, including the reflections of urban life from the Ashcan School and the Harlem Renaissance, the array of local expressions of Regionalism, and the anxious postwar work of the Abstract Expressionists. The trimester closes with an exploration of the

movement away from painting and into the realms of sculpture, performance art, and land art by artists of the 1960s and beyond. Complementing works of art with the writings of the artists who made them and selected essays by art historians and critics, students investigate American art through the lens of a central question: How did 20th century American artists develop uniquely American styles of artistic expression? The course draws on the local collections and scholarly resources of the Crystal Bridges Museum of American Art and the Momentary, and students consider the ways that artists such as Jacob Lawrence, Edward Hopper, and Joan Mitchell reacted to political events and social changes through their work. Throughout the trimester, students develop the skills of visual analysis, think critically about what they see and read, and communicate their thoughts both orally and in writing.

Open to Grades 11-12

1/3 Credit

Prerequisites: None

SCIENCE

Required Courses

Inquiries in Biological and Environmental Sciences

This year-long course explores interactions in the natural world – from the molecular processes behind cell division to the genetics of endangered species. Building on previous coursework, students learn how living organisms develop, adapt, and interact with their environment, while lessons in agrobiology and bionomics advance their learning in the Meals Program. Through activities and laboratory time, students develop their critical thinking, communication (both written and oral), laboratory, and research skills. Whenever possible, they venture outdoors to explore the rich natural environment in Northwest Arkansas. Class discussions create ample opportunities to tackle questions about bioethics in the rapidly changing world of modern medicine.

Required for Grade 9

1 Credit

Prerequisites: None

Inquiries in Chemical and Physical Sciences

This year-long laboratory course investigates the composition of matter and the physical and chemical changes it undergoes. Students study the fundamental structure of atoms, the way atoms combine to form compounds, and the interactions between matter and energy. This course focuses on quantitative measurement, dimensional units, and experimental variability. Students use a range of tools for tabulation, graphical representation, visualization, and statistical analysis. In addition, they continue to hone their ability to ask scientific questions, design relevant experiments, develop models, engage in argument, and determine possible solutions using empirical evidence. The ability to read, interpret, and produce scientific and technical text are fundamental foci of this course, as is the ability to communicate clearly and persuasively.

Required for Grade 10

1 Credit

Prerequisites: None

Elective Courses

Anatomy and Physiology*

This advanced year-long course teaches students about how the parts of an animal's body are arranged (anatomy) and interact physically and chemically with one another to perform the daily functions required for that animal's survival (physiology). This lab-based course utilizes techniques including but not limited to micro- and macro-dissection, microscopy, and measuring vital signs using various medical instruments. Students use case studies to investigate how these concepts and techniques are connected to and applied in real medical situations.

Open to Grades 11-12

1 Credit

Prerequisites: Biology and Chemistry (Class of 2022 only) or Inquiries in Biological and Environmental Sciences and Inquiries in Chemical and Physical Sciences

Chemistry*

This advanced year-long laboratory course is designed for students who wish to further their studies in this core scientific field. The key concepts underpinning this course include atoms and forces, patterns in chemical behavior and reactions, chemical bonds, energy changes, and experiments and evidence. Students delve deeply into physical chemistry, inorganic chemistry, organic chemistry, and analytical techniques through laboratory work. Throughout this course, students gain a greater depth as well as breadth of subject knowledge, confidence in applying knowledge and skills in new situations, and the vocabulary to discuss this subject conceptually and show how different parts link together. Developing a deeper theoretical and practical knowledge of matter and energy enhances learning and understanding in biological sciences and physical sciences as well as the Signature Programs, thereby advancing students' appreciation for the beauty and complexity of this essential science.

Open to Grades 11-12

1 Credit

Prerequisites: Chemistry (Class of 2022 only) or Inquiries in Chemical and Physical Sciences

Environmental Science

These trimester-long courses may be taken individually or as a year-long series:

- Ecology and Human Impact: Students explore ecological concepts such as biodiversity, ecological footprint, and population dynamics as they seek to understand how humans impact the Earth. Computational skills and graphical analysis are emphasized.
- The Atmosphere and Human Impact: In this trimester-long course, students consider how the Earth's atmosphere was formed, what elements compose the atmosphere, and how these elements relate to human beings and their evolving behaviors. Scientific observation and scientific reading skills are essential as students analyze texts such as the Intergovernmental Panel on Climate Change's most recent report on atmospheric climate changes.
- The Earth System and Human Impact: Students learn about the history of the Earth, geological timelines, the history of life, and the evolution of humans and how they have impacted Earth's processes.

Open to Grades 11-12

1 Credit; CBL (trimester one)

Prerequisites: None

Physics*

This advanced year-long course builds on the foundations laid in previous science courses. Students are exposed to greater challenges as they deepen their conceptual understanding of physics and experimental design, as well as their problem-solving skills. Topics include mechanics, sound, light, optics, electricity, and magnetism. Students also have the opportunity to choose a strand of particular interest to pursue in greater depth.

Open to Grades 11-12

1 Credit

Prerequisites: Inquiries in Chemical and Physical Sciences or Physics (Class of 2022 only)

Corequisites: Calculus

WORLD LANGUAGES AND CULTURES

Required Courses

Students in the Upper School must study within the same world language of their choice (Latin, Mandarin, or Spanish) for at least two years.

Latin I, II, III and IV*

This sequence of four year-long courses in Latin enables students new to the language to achieve a degree of mastery sufficient to read and understand a variety of Latin texts that span more than 2,000 years. Using Ørberg's *Lingua Latina per se Illustrata*, podcasts, videos, and conversations with Latin speakers, students gradually build confidence and find their voice through repeated use of the language in and outside of class. Along the way, students explore Greco-Roman mythology and Roman history and culture, and they celebrate certain festivals to demonstrate the continuity of tradition from antiquity to the 21st century. Students also participate in nationally recognized exams sponsored by the American Classical League (e.g., the National Mythology Exam and the National Latin Exam) and may take trips to manuscript collections, foreign language competitions, and local universities to engage in relevant events. With the completion of Latin IV, students will have mastered approximately 2,000 of the most common words in the Latin language.

Open to Grades 9-12

Up to 4 Credits (one for each year)

Prerequisites: None for Latin I

Mandarin I, II, III, and IV*

This sequence of four year-long courses in Mandarin enables students new to the language to achieve a degree of mastery sufficient for meaningful engagement with the cultures of the Chinese speaking world. Pronunciation of the four tones is emphasized through a variety of speaking and listening exercises that strengthen students' command of the Pinyin system, while reading and writing of Chinese characters is introduced through short dialogues and elementary patterns of Chinese grammar. As each course progresses, students master increasingly complex grammatical patterns and acquire additional characters that extend their ability to speak and write in Mandarin. Students also explore the traditions of China, compare and contrast socio-cultural norms and practices, and learn about the nation's current governmental, economic, and technological evolutions.

Open to Grades 9-12

Up to 4 Credits (one for each year)

Prerequisites: None for Mandarin I

Spanish I, II, III, IV*, and V*

This sequence of five year-long courses in Spanish enables students new to the language to achieve a degree of mastery sufficient for meaningful engagement with the cultures of the Spanish-speaking world. Students develop the four core skills of language learning: listening comprehension, speaking, reading, and writing. From the beginning, students are expected to participate actively in class using

the target language. They also read and write about selected topics that give them opportunities to explore popular culture, customs, and traditions from the Spanish-speaking world. Spanish literature (poetry, drama, and short stories) and other cultural materials, including film and video, complement the lessons in the textbook. Students also have opportunities to develop their skills in conversation with guests and community members from Spanish-speaking countries.

Open to Grades 9-12
Up to 5 Credits (one for each year)
Prerequisites: None for Spanish I

Elective Courses

Ancient Rome

See History and Social Sciences offerings for course description.

Open to Grades 11-12
1/3 Credit History or 1/3 Credit World Languages and Cultures
Prerequisites: None

Introduction to German Language and Culture

Students are introduced to the German language at a novice level and learn about German culture, history, and literature in this year-long course. They acquire basic vocabulary and grammatical structures while practicing their conversational skills in the target language. In addition, students explore how German culture differs from that of the United States and study the history of the culinary legacy that German immigrants brought here, among other explorations.

Open to Grades 11-12
1 Credit
Prerequisites: None

Spanish Literature*

This trimester-long course introduces students to Hispanic literature and readings. Students read and discuss notable authors in the field, spanning from the early 1500s to the 20th century, including Sor Juana Inés de la Cruz, José Martí, Pablo Neruda, and Gabriel García Márquez. They also learn about how each author, and by extension their literary pieces, was shaped by the cultural contexts of their time.

Open to Grades 11-12
1/3 Credit
Prerequisites: Spanish IV or with the permission of the instructor

SIGNATURE PROGRAMS

Required Courses

Introduction to Signature Programs

This trimester-long course provides students with the foundation for further coursework in the Signature Programs. The course consists of three units, each focusing on one program (Meals, Reels, and Wheels). In the Meals unit, students learn gardening and cooking fundamentals and how local food-related issues reflect global trends. In the Reels unit, students gain an appreciation for the myriad technical and creative aspects of visual storytelling while becoming acquainted with Thaden School's state-of-the-art filmmaking equipment. Finally, in the Wheels unit, students undergo a riding and safety diagnostic to assess their current bike-riding ability, learn basic mechanical concepts through hands-on maintenance work, and study how bicycles can be used to address local and global social issues. These units are also integrated with one another to foster interdisciplinary thinking.

Required for New Students in Grades 9-12

1/3 Credit

Prerequisites: None

Elective Courses – Meals

Cooking Methods

This trimester-long course provides students with foundational skills in the culinary arts. The course includes instruction in recipe and menu planning, as well as in preparing and cooking foods using different methods such as dry-heat, moist-heat, and combination-heats. The course takes a deeper look at some of the more popular cooking methods such as baking, braising, roasting, grilling, steaming, poaching, broiling, smoking, and open flame. The course also focuses on the aesthetics of food presentation and introduces students to a wide variety of cuisines and culinary techniques. Additional topics include safety and sanitation, communication, management, and customer service.

Open to Grades 9-12

1/3 Credit

Prerequisites: Introduction to Signature Programs (New Students Only)

The Culinary and Cultural Roots of the South

See History and Social Sciences offerings for course description.

Open to Grades 10-12

1/3 Credit Meals or 1/3 Credit History

Prerequisites: Introduction to Signature Programs (New Students Only)

Delicious Art

See Visual and Performing Arts offerings for course description.

Open to Grades 9-12

1/3 Credit Visual Art or 1/3 Credit Meals

Prerequisites: None

Food and Community: Harvest Festival

Thaden School's Harvest Festival is an annual event that builds community through a celebration of food. In this trimester-long course, students garden, cook, and engage in local outreach as they plan and host the fall 2021 Harvest Festival. As part of the process, students consider how best to educate their community about sustainable food practices using booths, activities, refreshments, and more. They also develop their event-planning skills by organizing the logistics for the event and marketing it.

Open to Grades 9-12

1/3 Credit; CBL

Prerequisites: Introduction to Signature Programs (New Students Only)

Market Garden

What would it take to translate an interest in gardening into a business? In this two-trimester course students learn about the entrepreneurial dimensions of farming and food production. They are introduced to the processes required to plan, grow, and sell food products, such as budgeting, marketing, and safety and sanitation. Students also meet with local farmers and food producers who sell products ranging from bread and chocolate to salsa and jam. As a culminating project, students create their own mini-market to sell Thaden-grown and -produced food products.

Open to Grades 9-12

2/3 Credit; CBL

Prerequisites: Introduction to Signature Programs (New Students Only)

Culinary Operations

This one-trimester course introduces students to operations in the culinary world and the fast-paced environment of professional kitchens. Students develop the content and skills necessary to be successful in a professional setting – sanitation, safety, food preparation, communication, and teamwork. Students also have the opportunity to learn from culinary professionals, as well as put their knowledge into action by participating in local and national culinary competitions. This course is designed to be the capstone to our Meal's program, allowing students to hone and display previously learned skills.

Open to Grades 10-12

1/3 Credit

Prerequisites: Cooking Methods

Elective Courses – Reels

Film Festival

Students in this trimester-long course develop, plan, and execute the first annual Thaden School Film Festival. Open to the greater Thaden community, the festival will be held in late spring 2022 and will showcase work from the Reels program's first three years. In this class, students learn about exhibition, marketing, building audience awareness, curation, and programming. Guest speakers – from film festival coordinators to programmers – provide students with frameworks through which to understand the dynamics of the global film industry and highlight the role that festivals play in providing platforms for new artists. This course equips students with the skills needed to execute a large-scale community event, from planning and marketing to facilitation and curation.

Open to Grades 9-12

1/3 Credit; CBL

Prerequisites: Introduction to Signature Programs (New Students Only)

Film Scoring

See Visual and Performing Arts offerings for course description.

Open to Grades 9-12

1/3 Credit Music or 1/3 Credit Reels

Prerequisites: Sound Production or Digital Music

Northwest Arkansas Profiles*

This trimester-long course brings the skills acquired in prior Reels classes together into a fast-paced studio production. Students work in teams to produce up to six profiles about community members living and working in Northwest Arkansas. Each profile includes a photo shoot, podcast interview, and three-camera capture of the interview. Inspired by a project in Grand Rapids, Michigan (<https://fullexposurepodcast.com>), students create a micro-website where all content from the profiles is made public upon completion of the studio components. Students are encouraged to select one position on set and master it over the course of the trimester.

Open to Grades 10-12

1/3 Credit; CBL

Prerequisites: Short-Form Video Production I

Short-Form Video Production I

In this year-long course, students acquire foundational storytelling and technical skills. Through class lectures and workshops, they learn about visual analysis, directing, cinematography, lighting, production, sound, and editing. Each trimester focuses on a different project: a cinematography exercise, audio piece, and documentary portrait. In addition to completing their own projects, students assist and give feedback to their peers.

Open to Grades 9-12

1 Credit

Prerequisites: Introduction to Signature Programs (New Students Only)

Short-Form Video Production II*

This year-long course builds upon the skills students gain in Short-Form I by teaching them the advanced fundamentals of short-form video production, with a particular emphasis on story development. Through lectures and workshops, students hone their skills in core areas such as treatment writing, cast selection, storyboarding, producing, sound design, and color correction. Focusing on either narrative or documentary filmmaking, students complete 7–10-minute independent projects. Through these projects, they learn how to create meaningful works that explore social, cultural, and historical issues and gain an appreciation for the social responsibility inherent in media making. Students are also expected to crew on their classmates' films, which provides them with exposure to different roles on production and post-production teams.

Open to Grades 11-12

1 Credit; CBL

Prerequisites: Short-Form Video Production I

Writers' Room

See English offerings for course description.

Open to Grades 11-12

1/3 Credit English or 1/3 Reels

Prerequisites: None

Elective Courses – Wheels

Bikes Mean Business – Fashion, Carbon Fiber, and Beyond

In this two-trimester course, students take their place in the long line of bike-centric entrepreneurs by developing their own business plan, from concept to pitch. Immersing themselves in the vibrant Northwest Arkansas cycling industry – featuring global heavyweights like Rapha and Allied Cycle Works – students learn the skills and habits needed to start a successful business. They also acquire an understanding of the social entrepreneur's triple bottom line, which equally prioritizes people, the planet, *and* profits. Finally, teams of students apply their learning to ideate a new bike-centric business, develop a strategic plan, model finances, and embed social benefits, culminating in a pitch to the local community. Just as the bicycle empowers riders to choose their own paths, students have leeway to pursue their passions in creating their product, whether it be a fashion-forward line of bike-centric clothing, a prototype for a new bicycle accessory, a female-focused bike shop, a mobile food pantry, or some other bike-centric invention.

Open to Grades 9-12

2/3 Credit; CBL

Prerequisites: Introduction to Signature Programs (New Students Only)

The Culture and Craft of Bicycle Mechanics

In his book *Shop Class as Soulcraft: An Inquiry Into the Value of Work*, philosopher/mechanic Matthew B. Crawford argues that “getting an adequate *grasp* on the world, intellectually, depends on getting a handle on it in some literal and active sense.” In this trimester-long course, students do just that by applying their hands, head, and heart to technical and existential problems – all within the context of the bike shop. Mechanical instruction introduces students to the tools and tactics professional bike mechanics use to assemble, diagnose, and repair bicycles. Students then put their problem-solving skills into practice by working with community partners like Pedal It Forward NWA to tackle real-world mechanical challenges. Additionally, guest speakers and visits to bike shops help students see how the culture of bicycle mechanics manifests globally and locally. These experiences are underpinned by close readings and on-bike discussions of excerpts from texts like *Shop Class as Soulcraft*.

Open to Grades 9-12

1/3 Credit

Prerequisites: Introduction to Signature Programs (New Students Only)

Experiences in Bike Advocacy: The 2022 Youth Bike Summit

In the late spring of 2022, Thaden School will host the Youth Bike Summit, a national event by and for young leaders in the bike advocacy movement. Founded in 2011 by the New York City-based nonprofit Recycle-a-Bicycle, the Summit attracts hundreds of young people from around the country to socialize, educate, and empower one another to advocate for bike-friendly policies and infrastructure. In this class, students work with the local host committee (comprising regional advocates and business and community leaders) to plan and execute the 2022 Summit. To develop the skills needed for this project, students have the opportunity to attend the 2021 Summit in Atlanta to experience the event, learn from local host committee members, and draw inspiration for the 2022 Summit. Through this process, they gain authentic experience in all aspects of large-scale event planning, including marketing, public relations, logistics, programming, sponsorships, and managing local and national partnerships.

Open to Grades 9-12

1 Credit; CBL

Prerequisites: Introduction to Signature Programs (New Students Only)

VISUAL AND PERFORMING ARTS

Elective Courses – Music

Choral Ensemble

In this two-trimester course, students prepare and perform choral music. They develop music fundamentals (rhythm, melody, harmony, timbre, form, texture, and dynamics) and vocal techniques (sight-reading, breath support, and posture) with the goal of becoming independent musicians and strong musical leaders. Students also critique performances, reflect on connections to self and community, as well as other disciplines, and consider the role music plays as a form of expression, social change, and community building. This course provides opportunities for solo, small-group, and large choir performances in our school and greater community and for regional and national honor choir performances.

Open to Grades 9-12

2/3 Credit (may be taken up to four years for a maximum of 2 and 2/3 credits)

Prerequisites: Vocal Studio I/II or Choral Ensemble I/II

Film Scoring

In this trimester-long course, students learn to produce and compose original music inspired by stills, moving pictures, and short films. The class equips students with the skills needed to use music as a means with which to evoke imagery, narratives, and themes from visual artforms. Students in Film Scoring collaborate with their peers in courses in the Reels department.

Open to Grades 9-12

1/3 Credit Music or 1/3 Credit Reels

Prerequisites: Sound Production or Digital Music

Instrumental Ensemble

In this two-trimester course, instrumentalists of all backgrounds and interests (i.e., band, orchestra, rock, jazz, etc.) come together to rehearse and perform music. They build a foundation in music theory and explore ensemble work in greater depth with the goal of becoming independent and collaborative musicians. Based on instrumentation and interest, students explore a broad range of repertoire and musical styles as a full ensemble, in smaller groups and chamber ensembles, and as soloists. Students also have opportunities to develop their leadership skills as section leaders, music theory tutors, and student music council members. This course provides opportunities for solo, small-group, and large ensemble performances in our school and greater community and for regional and national honor ensembles.

Open to Grades 9-12

2/3 Credit (may be taken up to four years for a maximum of 2 and 2/3 credits)

Prerequisites: Instrumental Studio or Instrumental Ensemble I/II

Instrumental Studio

This trimester-long course provides an opportunity for students to focus on their individual and small-ensemble instrumental skills. Open to all levels, this course provides a safe environment to learn an instrument for the first time, build instrumental technique, and add greater musicality to one's performance abilities. Instrumentalists may also choose to focus on all-region audition opportunities.

Open to Grades 9-12

1/3 Credit

Prerequisites: None

Introduction to Harmony and Musicianship

In this trimester-long course, musicians of all backgrounds explore and build their knowledge of music theory. Harmony is the study of the basic building blocks of Western music as codified by early-Baroque composers. Concepts such as intervals, chord sequences, four-part voicing, and composing for piano or voices are common to an introduction to harmony. Musicianship is the study of the skills necessary in one's practice as a musician. Concepts such as sight-reading, sight-singing, rhythmic and melodic dictation are common to an introduction to musicianship. Introduction to Harmony and Musicianship exposes students to the fundamentals of both of these areas of music study.

Open to Grades 10-12

1/3 Credit

Prerequisites: Choral Ensemble I/II or Instrumental Ensemble I/II

Sound Affects

Inspired by the Sound Affects organization, students in this trimester-long course learn how music can impact the brain and explore musical interventions that can positively impact vulnerable populations within communities. Using the work of Oliver Sacks, students consider how melody and rhythm impact cognition and consider questions such as: How can music impact people living with dementia, and what types of musical experiences are best for children with autism? In partnership with local organizations, students also research, educate, and inspire others through music.

Open to Grades 9-12

1/3 Credit; CBL

Prerequisites: None

Sound Production

In this trimester-long course, students learn, compose, and create works of music utilizing Ableton Live. Students discover how to sample, manipulate sounds, and have access to digital interfaces and audio recording equipment. They build their base of knowledge through a series of projects as well as original compositions. While instrumental or music theory experience is not required, it is helpful for students to have some background in music making.

Open to Grades 9-12
1/3 Credit
Prerequisites: None

Ukulele Ensemble

This trimester-long instrumental and vocal course prepares students to play the ukulele, whether in their home or around a campfire with friends and family. Students are equipped with the skills and knowledge to create their own repertoire list of folk songs, pop, rock, and everything in between. The course culminates in a performance developed by the class.

Open to Grades 9-12
1/3 Credit
Prerequisites: None

Vocal Studio I

This trimester-long course provides an opportunity for students to focus on their individual and small ensemble singing skills. Open to all skill levels, this course provides a safe environment to work through voice changes, expanding the range of, as well as adding greater musicality to, one's performance abilities. Singers may also choose to focus on all-region and national choir audition opportunities.

Open to Grade 9
1/3 Credit
Prerequisites: None

Vocal Studio II

This trimester-long course provides an opportunity for students to focus on their individual and small ensemble singing skills. Open to all skill levels, this course provides a safe environment to work through voice changes, expanding the range of, as well as adding greater musicality to, one's performance abilities. Singers may also choose to focus on all-region choir, national choir, and college music audition opportunities.

Open to Grades 10-12
1/3 Credit
Prerequisites: None

Theater Arts - Elective Courses

One-Act Play

Students who enroll in this trimester-long course have the chance to be part of the first shows to be performed in Thaden's new Performing Arts Building. The One-Act class rehearses and performs a 45- to 55-minute play. There are two sections of this class so that the plays, presented back-to-back, serve as a two-act show. To participate in the production, students sign up for the class and then

audition for a spot in it. This course requires a number of after-school rehearsals, especially as the time of performance approaches.

Open to Grades 10-12

1/3 Credit

Prerequisites: By Audition

Performance Workshop

In this two-trimester course, students explore theatrical possibilities as they work on a full-length play for performance. They experience all stages of production, from rehearsal to show. To advance in their stage work, students practice fundamental performance skills which include deepening their understanding of acting terminology, voice and speech, physicality, and characterization. To participate in the production, students sign up for the class and then audition for a spot in it. This workshop requires a number of after-school rehearsals, especially as the time of performance approaches.

Open to Grades 10-12

2/3 Credit (may be taken up to four years for a maximum of 2 and 2/3 credits)

Prerequisites: By Audition

Theater Arts I

These trimester-long courses may be taken individually or as a year-long series:

- **Acting Techniques:** Students develop their acting skills by practicing their sense and emotion memory and improvisation and engaging in basic acting exercises. Scene study and technique as well as text analysis are studied in depth with individual critique and coaching by the instructor.
- **Original One-Act Play:** Students use guided writing exercises to produce and stage an original one-act play. This trimester-long course begins with guided exercises and scene writing prompts. Students then draft, revise, and rewrite their script, and ultimately stage their original play. Depending on their area of interest, students choose whether to serve as writer, actors, or director.
- **Scene and Character:** Students focus on scene and character work as they rehearse small performance pieces. They also prepare for the audition process by tackling cold reading techniques and preparing two contrasting monologues.

Open to Grades 9-12

1/3 Credit Each

Prerequisites: None

Visual Arts - Elective Courses

Ceramics I

Students practice the fundamentals of handbuilding with clay in this trimester-long course. Working with a variety of clay bodies such as porcelain, stoneware, and terracotta, they learn about foundational concepts like pinching, coiling, and slabs. Students are introduced to the stages of clay and the vocabulary associated with it as they complete projects that transform balls of clay to glazed and fired finished works. This course prepares students to enroll in advanced ceramics courses such as Sculpting the Head in Clay, Nerikomi, and Mold-Making, among others.

Open to Grades 9-12

1/3 Credit

Prerequisites: None

Delicious Art

In this trimester-long elective, students sink their teeth into food-themed lessons that develop their appreciation of visual art. In collaboration with the Meals program, they engage in interdisciplinary projects such hand-building ceramic serving bowls, creating paint studies of colorful vegetables from the Thaden garden, and designing and decorating cakes using fondant and frosting. Students also develop their visual fitness as they learn to read and digest works of art, such as historical and contemporary representations of the meal.

Open to Grades 9-12

1/3 Credit Visual Art or 1/3 Credit Meals

Prerequisites: None

Visual Art I

Students learn foundational visual art techniques in this trimester-long course. Through lessons that emphasize observation and imagination, they develop their artistic vocabulary and voice. Projects are designed to provide students with opportunities to utilize the principles and elements of design, as well as various tools of creativity. In addition, students are exposed to various historical and contemporary artists and art styles as they consider the complex role of visual art in society.

Open to Grades 9-12

1/3 Credit

Prerequisites: None

Visual Art II: Two-Dimensional Art

These trimester-long courses may be taken individually or as a series:

- **Color Drawing and Illustration:** This trimester-long course invites students to explore color drawing media and investigate forms of visual storytelling. Students study examples that expose them to the sophistication and purpose of visual narratives, from traditional

illustration to contemporary work. Students practice color mixing and blending using quality tools such as Prisma color pencils and vellum paper as they complete illustration projects that place a strong emphasis on conceptual problem-solving approaches and matching form to content.

- **Watercolor Painting:** This trimester-long course introduces students to the procedures and techniques needed to develop a work of art in the transparent media of watercolor painting. Students learn color theory through projects that encourage them to build realism within their work and experiment with non-representational composition.

Open to Grades 9-12

1/3 Credit

Prerequisites: Grade 8 Visual Art or Visual Art I

Visual Art II: Three-Dimensional Art

These trimester-long courses may be taken individually or as a year-long series:

- **Multi-Media Sculpture:** In this trimester-long course, students experiment with a variety of sculpting materials and techniques. They then develop a work of art based on a theme of their choosing. Designed for independent thinkers who enjoy experimenting, this class provides students with access to a variety of materials, including but not limited to wire, plaster, plaster cloth, cloth, clay, up-cycled/found objects, objects from nature, cardboard, polyurethane, wax, and cement.
- **Needle Felting:** Students learn the fundamentals of needle felting in this trimester-long course. Using colored wool and felting needles, they produce three-dimensional creatures as well as relief designs.
- **Nerikomi:** In this trimester-long course, students learn about Nerikomi, a Japanese ceramics technique. Using porcelain that is tinted with mason stains, they create complex patterns in clay and produce a set of functional dishware or jewelry. This course hones students' attention to precision, measurement, and specific ceramic rules.

Open to Grades 9-12

1/3 Credit

Prerequisites for Sculpture and Needle Felting: Grade 8 Visual Art or Visual Art I

Prerequisites for Nerikomi: Ceramics I, year-long Visual Art I, or Visual Art II: Clay

Visual Art III and IV*

In this trimester-long course, students use the skills learned in prior visual art electives, such as drawing, painting, sculpture, and ceramics. Undertaking a concentration, students develop a series of two- or three-dimensional works of their choosing that communicate a connecting theme or concept. Students' work may culminate in the creation of a portfolio that would be suitable for inclusion in a college or other application.

Open to Grades 9-12

1/3 Credit

Prerequisites: Two trimester-long visual art electives

WELLNESS AND PHYSICAL EDUCATION

Required Courses

Wellness I and II

These one-trimester courses inspire and enable students to practice healthy living, broadly conceived. With emphasis on interpersonal communication, decision-making, and conflict resolution, the courses address identity development, nutrition, anatomy, and physiology. Students also earn CPR and First Aid certifications.

Required for Grades 9 and 11

1/3 Credit

Prerequisites: None

Elective Courses

Physical Education

The Physical Education requirement is fulfilled by taking four one-trimester courses (one each year) or by participating on one Thaden School athletics team per year. The one-trimester physical education offerings allow students to grow more comfortable and confident in the face of physical challenges, while giving them meaningful exposure to sports and activities they can enjoy for the rest of their lives.

- Climbing: This trimester-long course equips students with the knowledge and skills necessary to safely and effectively rock climb outdoors and indoors.
- Cycling: This trimester-long course provides opportunities for students to practice different disciplines of cycling. Students familiarize themselves with a range of bikes and learn the skills necessary to enjoy the cycling resources available in the region.
- Weightlifting: This trimester-long course introduces students to the basics of strength training, including workout structure and proper form.

Open to Grades 9-12

1/3 Credit per trimester

Prerequisites: None

INTENSIVES

Representative Elective Courses

Intensives are one-week periods of study in which students eschew their regular weekly schedule to participate in one course that meets all day, every day. This allows students to engage in educational experiences that are not always easily facilitated during our typical 60- and 75-minute class periods. Intensives also allow for the development of creative interdisciplinary course offerings that are complementary to but distinct from Thaden's core curriculum.

Mathematics and Beauty

In this intensives course, students approach art and nature through the lens of mathematics. Using a series of case studies, students build an appreciation for the patterns, equations, algorithms, and shapes that undergird natural and artistic masterpieces, such as a Nautilus shell and Leonardo de Vinci's Mona Lisa. Based on interest and available art, students also have opportunities to explore new mathematical concepts such as fractals, binary code, and parametric curves. This course includes visits to Crystal Bridges and The Momentary.

1/3 Credit

New Media

This intensives course introduces students to basic components of new media: video production/editing, copy writing, graphic design, web design, social media, and still photography. Students learn about art and design principles, contemporary multimedia artists and designers, and critiques of mass media. In addition, students develop an appreciation for the ways in which story and composition can be used as powerful communication tools. In developing their own online portfolio, students gain exposure to these new forms of technology, while also understanding that the fundamentals of design and storytelling remain important in all forms of media.

1/3 Credit

Saddle Up, Huck – A Journey Down the Mississippi with *Huckleberry Finn*

Recounting his first few attempts to ride a pennyfarthing bicycle, Mark Twain wrote in 1896 that, to manage the machine, “[the intellect] has to teach the limbs to discard their old education and adopt the new.” Conversely, the body is sometimes the mind's best mentor. In this cross-listed Wheels and English intensives course, students use the bicycle to deepen their understanding of and appreciation for Twain's *Huckleberry Finn*. The bulk of the class is dedicated to an in-depth study of Twain's seminal American novel, culminating in a multi-day bike ride along the Mississippi River. During the ride, students document their experience and conduct interviews with people they meet along the way to examine how themes in *Huckleberry Finn* manifest in today's America.

1/3 Credit

Ways of Knowing

This intensive course introduces students to ways of thinking, reading, and writing within and across disciplines to prepare them to ask questions and generate knowledge in a college or university setting. Students analyze and engage a variety of primary and secondary texts designed to support their inquiry into a set of social and intellectual topics of broad concern. Themes vary but may include Power, Vision, Body, Self/Other, Time/Space, and Social Change. Each of these topics is explored through the lenses of literature, history, science, and art to demonstrate both the connections and the disciplinary distinctiveness of “ways of knowing” our world. When feasible, practicing scholars from colleges and universities (or Thaden School) participate in framing and facilitating class discussions on topics in which they hold expertise. Students cap their learning experience by producing their own contribution (an academic paper, article, podcast, video, etc.) to a scholarly conversation.

Open to Grades 9-12

1/3 Credit