KM 4.26

Randolph Union

Course Catalog
SY 2026 - 2027
(Version 1.0)



> Education, therefore, is a process of living
> and not preparation for future living.
>
> - John Dewey

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Mission & Standards

The OSSU School Board has given RU an important charge: to prepare our students for the next stages of their lives. This is a broad and significant mandate. It requires that we focus on the skills and dispositions needed for young people to be active and engaged **agents in our democracy**, productive and innovative **contributors to the economy**, and **empathic and ethical citizens** in our local and global communities. The RU Faculty has high expectations of our students - and of ourselves - in all of these domains. We articulate essential expectations as graduation standards, aligned to our board's expectations and to state requirements for proficiency in diverse subject areas. Our graduation standards fall into two main categories:

- Foundational Knowledge & Skills (Content Area Graduation Standards)
- Habits of Community & Work (Transferable Skill Graduation Standards)

These graduation standards guide our community daily, from classroom learning intentions, to assessment rubrics, to Senior Project, to special honors and awards for both students and teachers. In alignment with VT Act 77, a proficiency-based graduation system that is explicitly tied to these standards is being put in place for the RU class of 2020.

Habits of Work and Community
(Transferable Skill Graduation Standards)

Habits of Work

- **Organization**: Efficiently organizes priorities, **time, belongings, materials**, and resources in school, at home, and in remote learning.
- **Productivity:** Completes work according to deadlines and expectations, both at school and in remote, synchronous or individual work time.

Habits of Community

- **Respect for Others**: Respects the identity of others, listens, empathizes, seeks to understand, works to keep the community safe, and safely intervenes to protect others.
- **Personal Responsibility**: Cares for own physical and mental wellness, keeps safe physically and emotionally, shows self-control.

Foundational Knowledge & Skills (Content Area Graduation Standards)

ENGLISH

Writing: Students write effectively for a wide range of purposes, genres, and authentic audiences across multiple disciplines.	**Language**: Students can accurately use conventions of Standard English, figurative language, and strategies to support an expanding vocabulary.	**Presentation**: Students present information, findings and supporting evidence on a topic, conveying a clear and distinct perspective to an authentic audience.	**Discussion:** Students demonstrate respectful listening and active engagement across a range of forums for dialogue, discussion, and debate.	**Reading**: Students can read, comprehend, and analyze a wide range of literary and informational texts to draw conclusions about the text, themselves, and the greater community.	**Listening:** Students can comprehend, evaluate and use information provided in different auditory formats.

FINE ARTS

Create: Students communicate powerfully through the arts, demonstrating fluency in essential skills, terminology and processes with an artistic problem solving approach.	**Present:** Students communicate meaning and demonstrate skills through public exhibition and performance.	**Connect:** Students create connections between the arts, history, culture, politics and other domains.	**Respond**: Through critique and analysis of the work of masters and others, students understand their own skills and unique place in fine arts traditions.

HEALTH

Core Skills: Students state health-enhancing positions on a topics and support positions with accurate information.	**Analyzing Influences**: Students analyze the influence of family, peers, culture, media and technology on the behavior of individuals, local community and the broader society.	**Accessing Information**: Students access reliable information, products and services that enhance the health of individuals, the local community and broader society.	**Communication & Advocacy** Students use interpersonal communication to advocate for personal, family and community health.	**Decision-making & Goal Setting**: Demonstrate the ability to self-regulate, and use decision-making skills and goal setting to enhance health.

MATH

Mathematical Practices: Make sense of problems and persevere in solving them; attend to precision while constructing viable arguments and critiquing the reasoning of others. Interpret, use and create mathematical models of real world events.	**Number & Quantity:** Extend properties of counting numbers to understand and use other types of numbers; reason quantitatively and use units to solve problems. Observe these properties in applications.	**Algebra:** Perform arithmetic operations with polynomials, including rational expressions; create equations that describe numbers or relationships; reason with equations and inequalities. Analyze and reflect on various connections in real world applications.
Functions: Interpret and build functions. Predict outcomes and patterns in real world events.	**Geometry:** Understand congruence; apply knowledge of similarity, right triangles & right triangle trigonometry; express geometric properties with equations; apply knowledge of geometric measurement and dimension. Use effective language to describe geometric relationships in our surroundings and everyday situations.	**Statistics & Probability:** Interpret and use statistical data to make decisions; apply knowledge of probability rules to make inferences. Reflect on effective or ineffective presentations of data or predictions.

PHYSICAL EDUCATION

Knowledge and Motor Skills: Demonstrate proficiency in a variety of motor skills and movement patterns.	**Application and Strategy**: Apply the knowledge of concepts, principles, strategies, and tactics related to movement and performance.	**Physical Fitness:** Demonstrate the knowledge and skills to maintain a healthy level of physical activity and fitness.	**Safety and Respect:** Exhibit safe and respectful behaviors that show care for self, others, and our common resources.	**Active Living:** Demonstrate the value of choosing physical activity for personal challenge, self-expression, and enjoyment of the local environment and resources.

SCIENCE

Developing & Using Models Students design, evaluate and refine models through an iterative cycle of comparing their predictions with the real world and then adjusting them to gain insights into the phenomenon being modeled. As such, models are based upon evidence. When new evidence is uncovered that the models can't explain, models are modified.	**Planning & Carrying-out Investigations** Students design investigations that generate data to provide evidence to support claims they make about phenomena. Data isn't evidence until used in the process of supporting a claim. Students use reasoning and scientific ideas, principles, and theories to show why data can be considered evidence.	**Analyzing & Interpreting Data** Students use digital tools to interpret data by identifying significant features and patterns. They also use mathematics to represent relationships between variables, and take into account sources of error.
Using Mathematics & Computational Thinking Students use mathematics to represent physical variables and their relationships, and to make quantitative predictions. They engage in computational thinking, which involves strategies for organizing and searching data, creating sequences of steps called algorithms, and using and developing new simulations of natural and designed systems.	**Constructing Explanations** Student construct and revise explanations based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.	**Designing Solutions** Students specify constraints and criteria for desired qualities of the solution, develop a design plan, produce and testing models or prototypes, select among alternative design features to optimize the achievement of design criteria, and refine design ideas based on the performance of a prototype or simulation.

SOCIAL STUDIES

Inquiry: Students use a process of questioning, locating, evaluating, analyzing, and synthesizing information in order to understand the world around them.	**History**: Students use primary and secondary sources to gather information about the past to help them make sense of the present and decisions about the future.	**Physical and Cultural Geography**: Students use geographic themes to understand the physical and cultural environment and propose solutions to local and world issues.	**Economics**: Students apply the concepts of economics to evaluate their community, nation and world.	**Civics, Government & Society**: Students understand and exercise the rights and responsibilities of informed citizenship.

WORLD LANGUAGES

Language Acquisition Behaviors Students engage in behaviors that facilitate development of skills in level-appropriate forms of non-native language communication.	**Communication** Students can communicate about aspects of their daily lives in a non-native language.	**Language Mechanics** Students understand the nature of language through comparisons of the non-native language to their own.	**Exchange** Students connect with non-native language cultures.	**Cultural Appreciation** Students are empathic toward other cultures and understand how language carries culture, values and beliefs.

Graduation Pathways
Commonality & Personalization

Earning a diploma from RU means that students have demonstrated proficiency in our graduation standards. Pathways toward proficiency typically involve a blend of common/required experiences and personalized programs of study that align to individual student interests, goals and needs.

In a normal school year, one common expectation is that all students are expected to carry **7 courses** each semester. This typically includes the pathway requirements listed below.

Common Graduation Pathway Requirements

	English		4 full years
	Mathematics		3 full years
	Science		3 full years
	US History		1 full year
	Social Studies		2 full years
	Physical Education		1.5 years
	Health/Life Skills		0.5/0.5 years
	Fine Arts		1 full year
	World Languages		Standards are addressed through multiple pathways.
	Senior Project		See detailed information on following pages.

Promotion Requirements: Grade Level, Advisory Group, Etc.

A student's grade level standing is used to determine Advisory placement and class activities. At the end of each year, Student Services will update grade level and class standings, awarding credit for all semester courses. **To be promoted from one grade/class to another, a student should have successfully completed the following, or equivalent, although grade level teams in conjunction with the administrative team make decisions that are best for the individual student:**

4	full year courses at the end of the freshman year, including 1 full English course	
9	full year courses at the end of the sophomore year, including 2 English courses	
14	full year courses at the end of the junior year, including 3 English courses	
20	full year courses at the end of the senior year, including 4 English courses	

Student Supports at RU

Literacy and Math Extensions

Literacy and math extensions are smaller group opportunities built into student schedules where students receive additional instruction focused on specific skills. Placement in extensions is based on teacher, family, and student feedback/requests, testing data, and grades. Some students may access this support for a quarter or a semester, while others may access this support throughout the year.

Structured Study Classes

Structured study classes are taught by classroom teachers, and are focused on providing executive functioning and time management support. In addition to practicing specific executive functioning strategies, students will also have time to work on assignments, read, and practice other academic and life skills.

Callback

Callback is built into all student schedules on Tuesdays and Thursdays, and is a time for students to work with specific teachers on assignments, skill development, small group work, and more. Students are scheduled weekly by teachers or advisors.

After School Tutoring

RU offers after school tutoring some days of the week. There is specific math tutoring offered certain days of the week by math interventionists and math teachers. Additionally, there is general homework support offered multiple days a week.

Education Support Team (EST) Plans

EST Plans are support plans for students who may need more specific short-term intervention within the classroom beyond universal instruction. EST Plans are developed collaboratively between grade teams, families, and students, and are intended to outline and progress monitor shorter term goals for behavioral and/or academic achievement.

Mental Health Services

Students have access to our school and mental health counselors and/or our school social worker. Counselors also offer some group work opportunities for students.

RU Middle School Program of Study
Overview: School Year 26-27

The middle level program of study strikes a balance between choices based on interest and exposure to required areas of study. Here is an overview of important elements of the middle school experience.

7th Grade

In a typical 7th grade year, the year-long required courses are **English, Math, Science, Social Studies, Physical Education,** and **Fine Arts**. Students also take a required semester of **Health Education** and a semester of **World Language Exploration**. This array of courses meets middle school requirements of the State of Vermont Agency of Education, and curriculum is aligned with the same standards in which students must show proficiency later in high school.

> A special note on Fine Arts: 7th grade Fine Arts includes a mixture of choral music, instrumental music, visual arts, and theater arts. Students who have been studying an instrument in elementary school will be able to continue their studies. Students who have not yet enrolled in chorus or band will be offered exposure to the world of theater arts. All students will continue their skill development in visual and performing arts. Flexible scheduling, individual lessons, and close collaboration between teachers allows us to meet the interests of a diverse student body.
>
> Special note on World Languages: In 7th grade, students typically are exposed to basic skill development and cultural exploration in a world language. At RU, students are offered the opportunity to take a semester of introductory Spanish. If they continue in 8th grade with Spanish, they will receive 1 full credit of world language and be poised to move into Spanish 2 as ninth grader. The State of Vermont requires proficiency in World Language standards to graduate from high school, and so we begin this learning for all students in 7th grade.

8th Grade

In a typical 8th grade year, the year-long, required courses are **English, Math, Science, Social Studies,** and **Physical Education.** Beyond these requirements, students are offered choices:

- World Languages: Spanish 1 and French 1 (by recommendation)
- Fine Arts: Band, Chorus, Visual Arts or Theater Arts
- MS Grade 8 Exploratory Coding & Robotics and other electives schedule permitting

> Special note on World Languages: Before graduating from high school, the state of Vermont expects students to have a basic level of proficiency in a world language. (Study of at least two years of a foreign language is recommended for students applying to a wide array of colleges.) The successful completion of 1.5 semesters of Spanish in middle school will allow students to complete Spanish 1 and move into Spanish 2 as a ninth grader.

Middle School at RU: More Info!

Advisory: Advisory at RU supports students in achieving academic and personal goals, and fosters respectful, empathic relationships that strengthen our community. In the academic realm, Advisors help students with Habits of Work like Organization and Productivity, help students get in touch with teachers for academic support, prepare students for Student-Led Conferences twice a year and help students maintain a portfolio of their middle school work.

Call Back: This is a special time built into the weekly schedule for enrichment learning activities or to receive extra support from teachers.

Community Partners: RU MS has several important partnerships that support our work. For instance, our core academic teachers work closely with the RU Innovation Center and community partners engaged with the IC. In addition, school counselors work closely with organizations like Randolph Recreation, Gifford Medical Center, and the Clara Martin Center and others to connect students to community mentors and other supports. International travel and exchange starts at RU in the middle school with our travel to Japan, sustained by our local community partner, Friends of Shizukuishi.

Support Classes: Many students enroll in classes for support. Some common supports include **Resource Room** with a special educator, and **Math Extension**, **English Extension, or Windows and Mirrors** with a Math or English teacher. These support classes may take the place of other classes in a student's schedule, as determined by the grade level team, student, and family.

Extra-Curriculars & Athletics: There are many extra-curricular opportunities for students at RU. Past clubs open to Middle School have included Cooking, GLOW (LGBTQIA+ alliance), E-sports, Manga & Anime, Student Leadership, and others. Athletic teams include Soccer, Basketball, Baseball, Track, Lacrosse, Gymnastics, and more. Our school website will have forms/updates from our Athletic Director.

Honors & Awards: We traditionally celebrate academic achievement with our Honor Roll at our Middle School Assemblies. We also have a "Habits Honor Roll" for students with strong performance in their Habits of Community and Work.

Innovation Center (IC): Down the hallway of the Fine Arts wing is the Innovation Center, new to RU in school year 18-19, and overseen by our Director of Career & Workforce Development. Middle school learning connects to the IC frequently throughout the year when projects involve computer-assisted design (CAD), traditional tools like hammer and saw, and modern technology like the laser cutter, milling machine, and 3-D printers.

Integrated Studies: Throughout the year, 7th and 8th grade core academic teachers collaborate on project-based units that blend different disciplines together. These projects do not detract from time in core or elective classes. We continue to maintain an emphasis on important traditional assessments, such as tests, quizzes, research papers, science labs, seminar discussions, creative and expository writing. These units often require student collaboration and the practice of transferable skills (Habits of Work/Heart). They incorporate standards from Science, Social Studies, Math, and English. These projects will give students the chance to apply academic skills in compelling ways. Some examples from past years: Local History Project, The Energy Project, Water & Human Impact, and more.

Media Center / Library: The RU Media Center offers much to RU Middle Schoolers. In addition to a wide variety of books and multimedia resources, the Media Center supports literacy in the curriculum through digital and audiobooks, classroom activities, and book promotion. Students have opportunities to participate in book groups and extracurricular clubs. The Library Media Center specialist also provides research and digital literacy skills in collaboration with classroom teachers.

Portfolios & Personal Learning Plans: One of the most important parts of being a successful life-long learner is to know one's strengths and one's areas for improvement. With this in mind, we ask students to keep a portfolio of their work. Students use portfolios in conferences with families, and at the end of 8th grade they will "defend" their portfolio of work before a panel of faculty and students.

Proficiency-Based Learning and Assessment: In 2013, Vermont's Act 77 brought us the new Education Quality Standards (EQS), which require that high schools move away from graduation by "credit" or "Carnegie Unit," and develop systems for "Proficiency-Based Graduation." As a 7-12 school, our Middle School teachers align expectations to these same standards, adjusted to 7th and 8th grade levels. One change from past practice is that instead of regularly getting just one grade per class, students get grades and information on how they are doing in several standards for each subject area. For example, instead of just getting a "75" on a report card for English class, students get information on how they are doing in reading, writing, discussion, etc. We feel this helps students (and their teachers!) have a better understanding of each student's strengths and areas for improvement. (Our Handbook on Proficiency-Based Graduation is available via this link, and can be found on the school website.)

Schedule of Classes: Student Services sends home student schedules typically two weeks prior to the start of the school year. However, families are welcome to contact us at any time to discuss past, present, future classes.

Student Services: Kayla Manning-French is the counselor for middle school students and their families. She will be able to help you with scheduling, Powerschool, counseling referrals and many other aspects of school life. Please contact her with any questions, concerns or to schedule an appointment at kmanningfrench@orangesouthwest.org or 728-3397 ext. 1146.

Senior Project

Senior Project consists of six parts, all of which must be completed in a satisfactory manner and in strict compliance with the deadlines on the Senior Project Timeline. In May, a review panel will evaluate the entire year's work. The six parts of the Senior Project are as follows:

1. **PROPOSAL** In the spring of junior year, each student presents a proposal to a panel for mandated pre-approval in an area of study that challenges him or her and holds his or her interest during the yearlong process. The proposal includes a letter of intent, a working bibliography, a research question web, a signed mentor agreement and a parent permission form. The senior presents a proposal to a panel of community members and staff. The senior and his or her panel reach an agreement about what the Senior Project will be. (See Sr. Project Manual for more information.)

2. **PAPER** Each senior writes a 7 to 12 page research paper on a topic related to the Senior Project.

3. **PRODUCT** Each senior creates a learning experience that requires spending at least thirty (30) hours using knowledge gained from research and from working with a mentor.

4. **PORTFOLIO** The portfolio documents the process and journey the student used to complete his or her Senior Project. It will include the following:

    a. **documents** pertaining to Senior Project
    b. **time sheet** that records the time spent working on the product and a summary of what was accomplished during that time
    c. **journal** reflecting on the work, the process and personal growth

5. **DISPLAY** The Celebration of Learning in May will include the entire portfolio and product. The product might not be tangible; for example, the student might spend time tutoring or working at a service agency, but the portfolio will document what was done. Documentation might include photographs, videotape, or a slide show. Some students wish to participate in a performance as part of the documentation of their product. This usually takes place during the *Night of the Arts* in May. The Senior Project Open House in May is open for viewing by parents, students, panel members and the public.

6. **DEFENSE** Each senior will present an eight to ten minute oral defense of his or her entire Senior Project to the panel in May. The oral defense is followed by a five- to eight-minute question and answer period.

If a senior does not complete any one of the five parts in a satisfactory manner or does not meet one of the published deadlines, the student and his/her parent(s) will be notified that the senior is ineligible to graduate in June. At that point the senior may appeal to continue in the Senior Project process. (See Sr. Project Manual for more information.)

Senior Project is an important way for students – and our community – to engage in an exciting learning process that allows our students to demonstrate the independent learning skills they have cultivated over their time at Randolph Union.

Multiple Pathways
Early College, ILOs, and More

As noted above, pathways toward proficiency in our graduation standards are a blend of required courses and personalized options via “multiple pathways.” Below are descriptions of the multiple pathways that are open to students at Randolph Union. Some of these options are available only to students in the upper grades - but not all of them. Students, if you are not sure what options are open to you - or whether we might be able to make an exception to the general rule - just ask!

Early College at Vermont State Colleges, CCV, and Norwich University
With the 2013 passage of the Flexible Pathways bill (Act 77), Vermont's Early College Program has expanded with funds being made available to students for programs that are operated or overseen by one of the Vermont State Colleges or by an accredited private post secondary school located in Vermont. Juniors are introduced to the Norwich, VTSU, and CCV Early College Programs through advisory. To begin this process, students need to speak with their school counselor, schedule a meeting with their parents and complete the Early College Advisement Form.

Dual Enrollment at Vermont State Colleges and CCV
High school juniors and seniors are eligible to take two college courses at Vermont colleges and universities tuition-free. Please see your school counselor for more information. Students most often take classes through CCV, as their online catalog is extensive, therefore, classes do not interfere with their RU schedule. This allows students to access a college class at times that work best for their schedule.

Community High School Program (CHSP) at Dartmouth College
The Community High School Program at Dartmouth College allows eligible seniors to take one course per term during the fall, winter and spring terms. Juniors may enroll during winter and spring terms only. Students must be recommended by a high school principal, counselor or school official. The tuition for this program is free to the student. Students are responsible for their books and transportation.





WBL: Work-Based Learning
Work-based learning at RU is possible through our Independent Learning Opportunity (ILO) program. The school maintains excellent relationships with regional employers. For more information, please see your school counselor.

Vermont Virtual Learning Consortium
In an effort to offer expanded course offerings to students, RUHS utilizes the online educational organization called the Vermont Virtual Learning Consortium (VTVLC). VTVLC courses are available to a limited number of students each semester with preference given to seniors and juniors. Sophomores will be considered on a space-available basis. Learn more about VTVLC by visiting vtvlc.org. Interested students should talk with their school counselor about this opportunity.

AP: Advanced Placement Courses
AP classes follow a national curriculum and learning is assessed by taking a national exam. High marks on the exam can earn a student credit at almost all colleges. This is a unique learning opportunity that allows students to take college-level courses and exams here at RUHS. AP courses are available in calculus, computer science, environmental science, physics, language and composition, literature and composition, world history, U.S. history, and statistics. **It is expected that students enrolled in AP courses will take the corresponding AP exam. The exam cost will be paid by the school.**

Applied Learning:

Independent Learning Opportunities, Project-Based Learning, Community-Based Learning, Integrated Studies, and More!

- **Independent Learning Opportunities (ILOs):** RU offers Independent Learning Opportunities to students who wish to explore topics or disciplines in a depth that may be hard to achieve in standard classes. Past ILOs have focused on business management, nonfiction narrative writing, architectural drawing, sports journalism, goat farming, veterinary science, genetic modification, engineering and watershed studies using the Innovation Space, sports nutrition, pre-season training, and a variety of foreign languages and cultures. Strong Habits of Work are a must – an independent work ethic is vital to student success in an ILO - and a "teacher of record" must approve the plan of study in accordance with the student handbook. An ILO is individually titled and can really make a student transcript or resume stand out. See a school counselor or our Director of Career Development and Flexible Pathways for more information.
- **Project-Based Learning (PBL):** Our PBL courses engage students in collaborative approaches to solving common problems in our community and broader society. In the past, we have offered PBLs on a wide range of topics: Racial Justice, Climate Change, Restorative Justice, International Development & Travel, Local Community Service (Interact), Food Systems, Digital Music Production, Emotional Wellness, Economic Inequality, and more. More info below about this year's offerings!
- **Community-Based Learning (CBL)**: The STEAM & Innovation Center educator offers two immersive, applied learning manufacturing courses: Manufacturing & Design I and Manufacturing, Design, & Entrepreneurship II. Both courses develop student exposure to industry standards and safety, processes and methodologies, Computer-Aided Design and Drafting (CADD), and traditional and CADD assisted tool training. Students will also be exposed to a wide array of central Vermont manufacturing companies through field trips, guest speakers, and informational interviews to help examine and understand the diversity of local business & entrepreneurial models. Partners in this work have included Vermont Manufacturing Collaborative and Vermont Technical College, VtSBDC, and several local area manufacturing businesses. See the STEAM & Innovation Center educator for more information.
- **Integrated Studies:** Our middle school teachers collaborate across disciplines to create special units of learning called "Integrated Studies." The Tarrant institute for Innovation in Education has been an important support for this work in the past. The STEAM & Innovation Center educator collaborates with and supports teachers in designing and implementing a variety of integrated studies' units. More info below about this year's offerings!
- **The STEAM & Innovation Center:** These applied learning units allow students to explore basic manufacturing technologies and reinforce, apply, and transfer academic knowledge and skills to a variety of interdisciplinary and relevant projects. Past work with the STEAM & Innovation Center educator includes units covering math-based building of bird-houses, book-binding projects, thematic board game design and implementation, Vermont-based wall-mounted 3-D representations of personal "spirit animals," and computer-assisted design and drafting (CADD) created visual representations of learning about the industrial revolution. See the STEAM & Innovation Center educator and below for more information

PBL Offerings SY 26-27

[**Note:** More offerings may be added before Fall of 2026]

Economic Justice PBL: How can we work toward a more economically just society?
Social Studies standards, Full Year Course
Why do some people have so much more than they need while others struggle to meet their basic needs? How do poverty and inequality affect individuals and our society as a whole? What would an economically just society look like? And what can we do about it, starting right here in Randolph? These are some of the questions we will be digging into in this PBL challenge, which will engage frequently with community members whose work or life experience touches on these issues. Students in this PBL will work collaboratively to analyze the sources of poverty and inequality in our community, and develop projects aimed at addressing these problems. At times, the class may collaborate with other PBLs engaging in similar work, including the Racial Justice PBL and the Food Systems PBL, and with RTCC Culinary through EJ's Randolph Refuel program. This class might appeal to students interested in economics, personal finance, politics, social sciences, community service, and/or social justice work. This class carries elective credit but, on a case-by-case basis, students may apply to take this class for Social Studies credit. Career Pathways: This PBL challenge will appeal to students interested in career fields such as economics,social sciences,advocacy,human services, political science,community organizing.

Music for The People PBL: How does music fit into our daily life and the life of your community?
Performing arts standards, Semester Course (Spring)
In this PBL challenge, students will develop their musicianship while exploring the diversity of music for the small ensemble through writing and arranging music. In addition, students will delve into music and culture, both in historical and contemporary timelines, to better understand the role of music in creating community, change-making, and storytelling. The PBL will conclude with a student-designed performance that extends beyond the classroom and provides for connection to the wider-community. Career Pathways: This PBL challenge will appeal to students interested in career fields such as music, arts, theater, sound production, education.

RU Youth Policy Lab- Rock the Vote: How can students gain a deserved seat at the table in shaping their community?
Social Studies/English standards, Full Year Course
With declining population throughout the state, how can we create a community that truly embraces youth voice and provides for creating a community that young people will want to return to after post-secondary studies and training? In this PBL challenge, students will focus on expanding youth participation in local government. In exploring how democratic systems work at the local level, including how policies are created, how voting laws are established, and how citizens advocate for change within their communities. Students will research youth voting policies in other towns and countries, analyze arguments for and against lowering the voting age, and examine the role of civic participation in a

healthy democracy. ***Using these skills, the class will collaborate on a real-world civic action project: developing and implementing a campaign to advocate for lowering the voting age to 16 in Randolph.*** By the end of the challenge, students will have gained hands-on experience in civic engagement and a deeper understanding of how individuals can influence public policy in their communities. Career Pathways: This PBL challenge will appeal to students interested in career fields such as economics,social sciences,law, advocacy,human services, political science,community organizing.

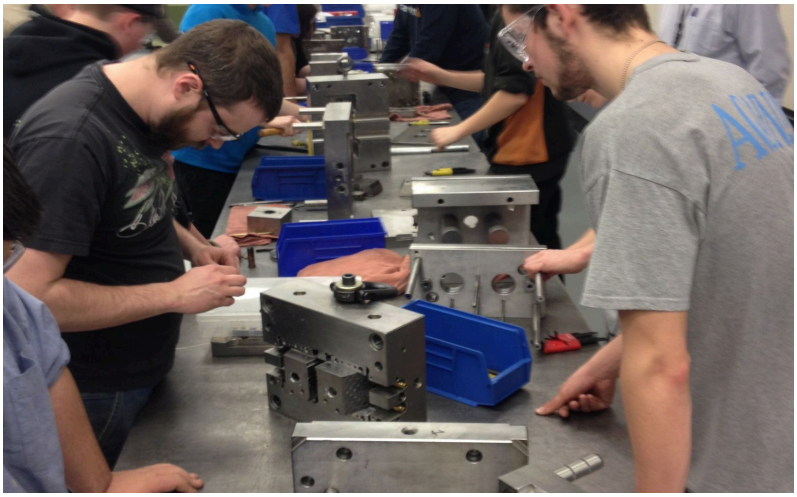
RU Connected: How can students create and maintain a dialogue with their broader community through media publications?
Social Studies/English standards, Full Year Course
In this media focused PBL challenge, students will be leading the charge in researching, creating, editing, and publishing bi-weekly media content for the school and surrounding community in conjunction with local media outlets. Deliverables will include both traditional forms of news publications (lead stories, opinion pieces, social commentary, sports and community event coverage) and contemporary digital content (podcasts, video reporting, social media). The focus of this PBL will be geared towards establishing and sustaining a forum for students to share their experiences and perspectives with the wider community in an authentic, self-directed manner featuring a diversity of viewpoints. In the pursuit of this goal, students will explore the roles and responsibilities of media in informing the public about important local and societal issues while collaborating and learning from professionals. Career Pathways: This PBL will appeal to students who are interested in media, political science, social commentary, community engagement, history, and communications.

RU RJ: **Many Voices, Many Histories: How can we advocate for and create a more equitable community?**
Elective Standards, Full Year Course
In this PBL Challenge, students will respond to increasing concerns about social and racial injustice in our local and national communities. Students will work with area experts to raise awareness around racial and social injustice to create a safer and more educated environment for all community members. In addition to establishing and maintaining a racial & social justice student alliance here at RU, students will reflect on the history of social injustice in our country. Through the PBL, students will work with their peers to educate our school and wider community about current issues. Throughout the year, students will work to develop a robust student group, establish goals, participate in field work, and host events and workshops. In participating in this PBL, students will learn about organizing around social issues and advocating for change through education and action. This class carries elective credit but, on a case-by-case basis, students may apply to take this class for English or Social Studies credit based on teacher of record availability. Career Pathways: This PBL challenge will appeal to students interested in careers in social justice, community organizing, social work, political science, history, and education.

CBL Offerings SY 26-27

Imagine **YOUR** story here!

Manufacturing 1
Semester course
Have you ever wondered how the products you buy make it to the store shelves? Whether it's video games, clothing, or sports equipment, the goods we purchase must go through a manufacturing process. In this course, you'll learn about the types of manufacturing systems and processes used to create the products we buy every day.



Manufacturing 2
Semester Course
This will be a continuation of the curriculum from Manufacturing 1. Students will apply the practices from Manufacturing 1. They will have a chance to work on their skills with different manufacturing projects. Students will also explore different careers in the manufacturing field.

Innovation Management
Semester Course
This exploration class looks at the different technologies and processes used in a maker space. Students will design and produce their own projects. This is a good opportunity for students who are self-motivated, independent, and curious about the innovation space.

3D Printing
Semester Course
3D printing is the process of additive manufacturing turning a 3D model (STL) into a physical print. The Innovation Center 3D printers use an additive fabrication process to generate products. Students will be exposed to the process of 3D printing from STL.File to Print. This class will look at how filament is made and spooled before being used on a 3D printer.

Digital Photography I: Fundamentals

Semester course

The Digital Photography course exposes students to a range of creative digital and media arts projects. This course is a hands-on class where students will learn by collaborating in and outside the classroom. Over the semester students will work on a selection of projects related to: **natural world** (plants, animals, or the outdoors), **cityscapes and structures** (man-made structures), **people** (fashion photography to personal portraits), **lifestyle (candid) photography** (large occasions to little moments of everyday life), **commercial photography skills** (food and product photography), **artistic shots (**ways to craft intriguing images through different photographic art i.e Black & White/Surreal Photography),and **stop motion** (animation).

Humanities: English

> It was books that taught me that the things that tormented me most were the very things that connected me with all the people who were alive, or who had ever been alive.
>
> - James Baldwin

***Mission**: In the English department, it is our mission to contribute to a literate community by teaching students to read, speak, write, listen and think in a variety of contexts, recognizing language as an essential tool in problem-solving.*

Windows and Mirrors (High School and Middle School Sections, English Intervention Elective**)**
Full Year Course
The goal of this course is for students to increase their ability to read higher level texts. This will be accomplished by students reading a class novel, reading a novel of their choice and a focus on non-fiction text.. This will include discussions and connections to students' lives. Students will also be reading a novel of their choice and writing reflections based on their reading. Furthermore, students will be writing each day focusing on skills that will strengthen their critical thinking in the reading context.

Writing Children's Literature (English Intervention, Elective 8-10)
Semester Long Course
This course will teach the fundamentals of writing through the lens of children's books and fairy tales. Students will start by writing simple sentences that use decodable vocabulary to create stories for very young readers, then progress up to more complex sentence structures and narratives that families can enjoy together. Students will write and illustrate their own fictional and informative picture books that they can share with the elementary schools in our district. The class is designed for students who are interested in Early Childhood Education, nostalgic for the days they spent reading picture books, or considering a career in writing, as well as those who would benefit from writing intervention services.

English 9
Full Year Course
In this class, students will develop their reading, writing, speaking and listening skills by exploring short stories, novels, nonfiction, and poetry. They will investigate how social issues like oppression and poverty affect individuals and communities, and how people come together to find joy and hope despite these challenges. Students will write analytical and persuasive essays as well as creative and personal narratives; discuss. Skills building will focus on active reading strategies and productive writing processes. A range of texts will be used, including short stories, poetry, fiction and nonfiction.

English 10
Full Year Course
In this class, students will develop their reading, writing, speaking and listening skills by exploring short stories, novels, nonfiction, and poetry. They will investigate how social issues like oppression, poverty, and hierarchies affect individuals and communities, and how people come together to find joy and hope despite these challenges. Students will write analytical and persuasive essays as well as creative and personal narratives; discuss. Skills building will focus on active reading strategies and productive writing processes. A range of texts will be used, including short stories, poetry, fiction and nonfiction.

Junior/Senior English Courses

Advanced Placement Language and Composition
Full Year Course (with summer work)
Advanced Placement Language and Composition is a year-long, college-level English Language Arts course designed to prepare highly motivated students for success on the AP Language exam. It is intended to teach students how to read, analyze, and write about the rhetorical strategies embedded within a broad and challenging range of non-fiction texts. Through frequent informal and formal performance tasks, students will develop the skills necessary to intelligently synthesize arguments from multiple texts into persuasive essays in which they establish strong claims, support them with convincing evidence, thoughtfully explain how their evidence supports their claims, and acknowledge and respond to the most compelling arguments refuting their logic and reasoning. To give shape to the course's content, readings are organized around themes addressing key cultural, social, and political issues that shape and define our culture today. This class will prepare students for the demanding reading and writing they will encounter in college. Most importantly, though, students will engage in deep critical inquiries into aspects of our world that will help them realize their full potential as active participants in our democratic society. Upon successful performance on the Advanced Placement exam, students may earn up to three college credits and advanced placement in college English. A summer reading and writing assignment is required for enrollment in this course.

Advanced Placement (AP) Literature and Composition
Full Year Course (with summer work)
Advanced Placement Literature and Composition is a year-long, college-level English Language Arts course designed to prepare highly motivated students for success on the AP Literature exam. Students will read, analyze, talk, and write about imaginative literature from the Greek and Roman classics to the present to deepen their understanding of how writers use language to cultivate meaning and explore the human condition in their art. They will read texts as authorial constructions—intentional acts of other humans trying to communicate something important to them. Students will understand how crucial it is to respect writers by reading their texts as they expect them to before deciding to what extent they want to embrace, adapt, or resist the writer's visions. To that end, the key question students will ask throughout the year is: How do writers reveal their thoughts, beliefs, and feelings through their writing? In other words, how do they use writing conventions and literary elements and devices to communicate their ideas? What kinds of changes are writers working to produce in their readers and the world—and why? What points of view or perspectives are writers representing—and why? What are writers

encouraging readers to know, believe, or do after reading their texts—and why? This is an engaging and rigorous reading, writing, and discussion-based course of study that requires on-time completion of all formative and summative assessments. Upon successful performance on the Advanced Placement exam, students may earn up to three college credits and advanced placement in college English. A summer reading and writing assignment is required for enrollment in this course.

American Literature
Semester Course

The American Dream is a slippery concept. Some argue that every American can experience economic prosperity, social mobility, and personal freedom and happiness if they are willing to apply themselves. Others argue that systematic barriers—such as racism, sexism, the exploitation of the lower and middle classes, and class rigidity—prevent many Americans from achieving it despite their considerable efforts. In this one-semester English Language Arts course, students will analyze the ways in which American authors have questioned their society's most deeply rooted assumptions and values. While doing so, they will explore and develop intelligent, well-defended responses to the following questions (among others): To what degree is the American Dream real, an expression of nostalgia for a disappearing past, or an idealized narrative of the American experience as a promised land filled with limitless resources and boundless opportunities? To what degree is the American Dream (and its notion of upward mobility) available to everyone in our society or only to those from specific socio-economic backgrounds, races, and sexes, etc.? To what degree has the American Dream evolved? To what degree does American literature shape, respond to, and challenge vital social, political, and cultural conversations? To what degree does American literature compel its readers to become well-informed, active participants in our democracy? With these inquiries in mind, students will read, write, and argue through a variety of performance tasks (e.g., close-reads, class discussions, Socratic seminars, essays, and quick-writes, etc.) grounded in complex texts that may include *The Great Gatsby*, *Of Mice and Men*, *Death of a Salesman*, *A Raisin in the Sun*, or *Fear and Loathing in Las Vegas*. Non-fiction texts will augment the study of those mentioned above.

Narrator Reliability in Literature, Media, and Film
Semester Course

In this semester-long English Language Arts course, you'll examine narrative perspectives to better understand how they shape our notions of truth and reality. Through the lenses of literature, media, and film, you'll explore how unreliable narrators intentionally and unintentionally manipulate content to influence their audiences' perceptions—i.e., to persuade them to think or behave in specific ways. The essential questions that will guide instruction are: To what degree can we trust someone else's (or our own) perception of reality, and how can we discover whether the stories we are told are true? By consistently applying these questions to course materials, you'll develop a heightened and nuanced awareness of the power dynamics inherent in storytelling. You'll also cultivate the critical thinking skills necessary to interrogate a variety of narrative texts for implied bias, thereby empowering you to navigate our increasingly complex world with insight and discernment.

Creative Writing
Semester Course

We're all storytellers—even if we haven't published our writing in a magazine or online journal. We've heard and told stories since we were babies and learned about life through them. Understood by the young and old, *Once upon a time*…*and then*…*and then*…*and then*…and *the end* are common phrases for signaling a story. Here's a complication, though: telling a story is one thing—writing one is another. It takes a high level of awareness to understand how stories are formed and how they shape people's perceptions of the world, their sense of self, and their relationships with others.

In this English Language Arts class, you'll compose narratives for a broad reading audience. I hope you'll come to appreciate storytelling as a manifestation of humankind's innate longing to construct meaning from the complex materials of human experience—to make sense of our evolving selves and our relationships with others. I also hope you'll come to recognize how important it is to democratic living. This will be fun, complex, and rewarding work.



Dystopian Literature
Semester Course

Dystopian fiction often imagines bleak, apocalyptic futures controlled by totalitarian regimes, subjugated by technology run amok, devastated by environmental disasters, and blighted by plague-like contagions. As depressing as these imagined worlds may seem, they do productive work. By focusing on and exaggerating contemporary social problems, dystopian literature can affect healthy cultural change. In this one-semester English Language Arts course, students will analyze the ways in which dystopian authors turn inquisitive eyes on their societies to improve them. While doing so, they will explore and develop intelligent answers to the following questions (among others): What are the defining characteristics of dystopian fiction? In other words, what themes, symbols, and images recur in the genre? How does dystopian literature respond to, challenge, and shape vital social, political, and cultural conversations? How do governing authorities use propaganda to control the masses, and what responsibility does the individual have to question them? To what degree does dystopian fiction compel

readers to become well-informed and active social critics—to realize their potential to change the worlds in which they live? Students will read, write, and argue through various performance tasks requiring them to comprehend, analyze, and evaluate complex, provocative fiction and non-fiction texts that are intended to serve their intellectual, social, and emotional needs.

The Hero's Journey in Literature and Film
Semester Course
The hero's journey paradigm is a storytelling structure that, at various levels, informs much of the fiction we read and watch. In this one-semester English Language Arts course, students will apply Joseph Campbell's version of it to a wide range of narratives. This interpretive work is designed to lead students to a deeper understanding of the texts they experience (e.g., the hero's journey symbols and patterns often embedded in literature, film, music, television, and advertising, etc.), the world in which they live (e.g., its values and ideals), and, ultimately, themselves (e.g., their psychological and emotional struggles and transformations). More than anything, students will cultivate an appreciation for storytelling as a reflection of humankind's innate longing to create structure, and thus meaning, out of the complex materials of human experience.

Flexible Pathways: English

PBLs: PBL electives that may meet graduation standards in this subject area include:

- **Racial Justice PBL**
- **Economic Justice PBL**

See the PBL offerings section for more information!

ILOs:

- Talk to your counselor for more information or if you have an idea for an ILO in this area.



Humanities: Social Studies

> To be hopeful in bad times… is based on the fact that human history is a history not only of cruelty, but also of compassion, sacrifice, courage, kindness. What we choose to emphasize in this complex history will determine our lives.
>
> - Howard Zinn, American Historian

Mission: *In the social studies department, it is our mission to aid students in understanding the development of human society and to help them acquire the skills for the continuation of that society. We want students to understand their places in societies, both modern and past, and understand how different changes and continuities have connected the two. We want students to know how and why social change occurs and how American and global institutions have enhanced that change. Upon completion of our curriculum, students should be able to use inquiry to increase their understanding of history, geography, civics and economics to analyze historical events and propose solutions to current global, domestic, and local issues.*

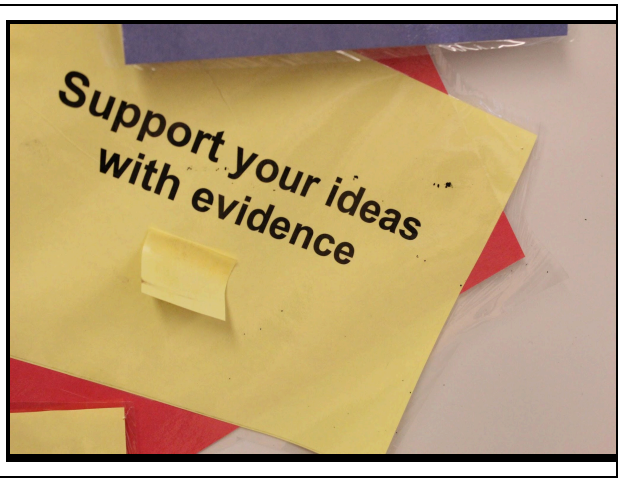
Typical course sequence: Students typically take US History I in Grade 9 followed by Modern World History in Grade 10, and by US History II in 11th grade.

US History I (Grade 9)
Full Year Course
In this class, students will explore the history of the United States from the pre-colonial era through the Civil War. Students will learn basic geographical and historical facts about our nation while also exploring broader questions of American identity and rights through a comparison of historical and contemporary events. The course will approach this content from the perspective of multiple socioeconomic classes, races, ethnicities, and genders. This class will also focus on the development of oral proficiencies through classroom discussions, as well as writing skills needed for success at higher grade levels. The course will culminate in a research project, the completion of which is required to complete the course.

Modern World History (Grade 10)
Full Year Course
Modern World History is a global history course aimed at tenth-grade students that provides a cohesive approach to learning and understanding the history of the world. In this course, students will explore the transformations that created our modern world, beginning in the long nineteenth century and ending in our present moment. This course will help students learn how to use stories about our connected human past to orient themselves to their present moment and prepare for the future. We're going to cover a lot of ground (and almost 300 years), but this course is not a typical march-through-time history class that covers one thing after another. Rather, this course uses a set of overarching inquiry problems and narrative frames, situated at a variety of scales, to organize and facilitate teaching and learning. Along with presentation summative assessments, students will also complete three document-based writing assignments and a 3-5 page research paper.

US History II (1865 - present)
Full Year Course
This course explores American history from the Reconstruction period through the present day. Using case studies, role plays, seminar discussions, oral history interviews, and independent research, students will explore the events and historical forces that shaped the world we live in today, and evaluate various perspectives about the lessons we should learn from these events to help us make sense of the problems we face today. This class will focus on developing research and writing skills to prepare students for Senior Project, and on developing the knowledge and skills to be informed, engaged citizens.





AP US History
Full Year Course
AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History, students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society.

AP World History
Full Year Course
The AP World History course focuses on developing students' understanding of world history from 1200 CE to the present. Students investigate the content of world history for significant events, individuals, developments, and processes in four historical periods, and develop and use the same thinking skills and methods employed by historians when they study the past. The course also provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places encompassing the five major geographical regions of the

globe: Africa, the Americas, Europe, Asia, and Oceania. Students will focus much of their energy on preparation for the National Advanced Placement Examination in May.

World Religions
Semester Course
World Religions takes a look at various belief systems throughout human history, and focuses on five major world religions being practiced today: Hinduism, Buddhism, Judaism, Christianity, and Islam. Students in this course have the opportunity to read and interpret religious texts, discover unfamiliar cultural practices, and identify the significance of religion in shaping the world in which we live. Summative assessments allow students to choose topics of interest within each major religion for deepdive research and presentation, in order to teach the rest of the class about their findings. This is a great elective for students who wish to learn more about history, the power of myth, and its ability to organize culture around the world.

Archaeology
Semester Course
This course provides an introduction to archaeological theory and methods through the study of the Ancestral Puebloan (Anasazi) peoples of the Four Corners Region. Students will explore the development of their civilization from the Archaic era up through Modern Puebloan societies, including the cliff-dwellers of the Pueblo II era. Students will think critically about pseudoarchaeology, focussing on how interpretations of the past that ignore or misrepresent scientific evidence, often promote sensationalist ideas The class will travel to the Crow Canyon Archaeological Center in Cortez, Colorado in October.

Art History
Semester Course
This course presents an introductory overview of the history of Western art from the Renaissance to the present. It covers works in a wide array of media, such as painting, sculpture, architecture, prints, photography, and performance. Emphasizing significant stylistic movements in Europe and the Americas, this class introduces students to visual analysis and other interpretative tools of art historical research. Students will also learn how the art pieces of a particular time and place relate to historical circumstances and values of their respective societies. The skills developed in this course provide important tools for navigating and interpreting media and visual representation in the twenty first century.

Sociology: Nature and Nurture; Rights and Wrongs
Semester Course
Once you have taken Sociology, you will never look at the world the same way again. This is because Sociology is not a body of knowledge, but a way of thinking about how human societies function. We'll ask (and attempt to answer) questions like: "What attributes do all cultures share?" "Are we born with our morals, or do we learn them?" "What are the unwritten rules of social interaction and what happens when they are broken?" and "Under what conditions will ordinary people behave in extraordinarily evil ways?" If you take this course, expect to read, write and share your ideas in class on a regular basis; I promise it won't be boring, but this is not an elective you can coast through. The final exam will be a research project in which you investigate a topic that interests you, collect and interpret data, and present your findings.

Introduction to Economics
Semester Course
You may think it's all graphs and numbers. You may think that Economics is boring. You may think that you could *never* understand terms like "collateralized debt obligations" or "aggregate demand" and that even if you *could,* it would never help you in your life. But you'd be wrong. This course is tough, but it is also practical, interesting and extremely relevant. By the end of the semester, you will be able to use economics to predict how gas and food prices might change over time, decide how best to pay for college or a car, evaluate politicians' plans to fix the economy, invest your time and money most effectively, and decide for yourself how worried you should be about our national debt. Completing homework, studying for quizzes and actively participating are keys to success in this course.

Vermont History
Semester Course
In this course students will examine the full scope of Vermont history. We begin with the natural history of the land and the forces that shaped Vermont's landscapes, and lead into an examination of Vermont's indigenous populations. From there we look at the arrival of Europeans, and formation of the United States. We will explore Vermont's role in the greater developments of the nation and the world, while discovering how our local communities reacted to those events. This course will rely heavily on primary sources, allowing students to discover the images and writings from our local history. This course will appeal to students who are interested in their local history, and will ask students to make their own discoveries and evaluations from primary sources, rather than relying on secondary sources or others' interpretations.

Flexible Pathways: Social Studies

PBLs: PBL electives that may meet graduation standards in this subject area include:

- **Racial Justice**

See the PBL offerings section for more information!

ILOs:

- Talk to your counselor for more information or if you have an idea for an ILO in this area.

Mathematics

In the broad light of day mathematicians check their equations and their proofs, leaving no stone unturned in their search for rigor. But, at night, under the full moon, they dream, they float among the stars and wonder at the miracle of the heavens. They are inspired. Without dreams there is no art, no mathematics, no life. - M. Atiya

Mission: *The mission of the mathematics department is to provide students the mathematical tools to analyze and communicate about the world around them. To this end, the department provides students with systematic, logical problem-solving strategies. This is accomplished via multi-faceted experiences where students first apply critical thinking skills to achieve clarity and focus on situations or events. They then use these skills to translate a problem to a mathematical model, and solve. To this result, students are able to communicate and defend their observations and conclusions using the language of mathematics.*

Math Curriculum and program:

RUHS offers a sequence of Common Core math courses published by Carnegie Learning. This program was adopted in grades 7-11 for the 20-21 school year, and was implemented, with support from the publishers, throughout the challenges of our global pandemic. Its strengths in technological presentations, modeling, analysis, real world applications, and communication of learning were instrumental in moving our students forward in a trying time.

This program uses a rigorous integrated problem solving approach to enhance student learning habits through investigation of related topics and skills, much like those one could find in real life. Students will develop mathematical reasoning and computation skills through collaboration, critical thinking, and related skills practice.

Our middle school offerings have, for a few years, had an integrated approach that combines different domains of math (pre-algebra, algebra, geometry, statistics, etc). RU students will continue in high school with an integrated curriculum that covers the traditional domains of Algebra, Geometry, and Statistics. We call it “AGS” for short.

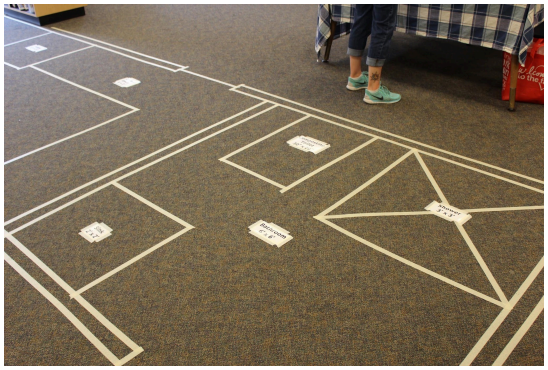
A typical sequence is AGS 1 in 9th grade, then 2, and 3 in successive years. Students have opportunities for support through math extentions and our math interventionist. Students have opportunities to accelerate and take Pre-Calculus, Calculus and/or AP Calculus by their senior year. This is typically done by doubling-up on math classes by grade 10. Please see your school counselor with questions.

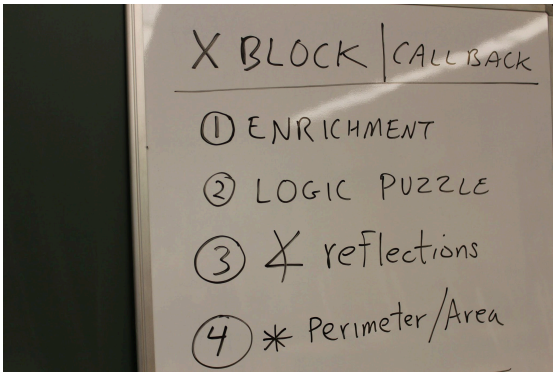
AGS 1 (Algebra, Geometry & Statistics 1)
Full Year Course
Prerequisite: 8th grade math, pre-algebra or equivalent
This first class in our series of three courses uses a rigorous integrated problem solving approach to enhance student learning habits through investigation of related topics and skills, much like those one could find in real life. Students develop mathematical reasoning and computation skills through collaboration, critical thinking, and related skills practice. This instruction is supported through an online

digital skills support program called Mathia. The content included in AGS 1 includes analysis and manipulation of functions, systems of equations and inequalities, coordinate graphing, one-variable statistics, constructions, and rigid motion congruence theorems.

AGS 2 (Algebra, Geometry & Statistics 2)
Full Year Course
Prerequisite is AGS 1 or equivalent or teacher permission
This second of three course series continues development of the integrated content. Students further develop mathematical reasoning and computation skills through collaboration, critical thinking, and related skills practice. The content includes algebraic analysis of geometric shapes and relationships, trigonometric relationships and applications, and probability.

AGS 3 (Algebra, Geometry & Statistics 3)
Full Year Course
Prerequisite is AGS 2 or equivalent or teacher permission
This third of our series of integrated courses. This course includes the structure of algebraic patterns and quadratics, comparisons of polynomial equations and models, rational and irrational functions with logarithmic expressions and modeling, further applications of trigonometry, and data interpretations and arguments using these previous tools.





Precalculus
Full Year Course
Prerequisite is AGS 3 and AGS 2 or teacher permission
This course is offered as a prerequisite for those students interested in taking Advanced Placement Calculus and college Calculus. The course finishes the study of functions of two variables: polynomial, exponential, logarithmic, trigonometric and the conic sections. Mathematical reasoning, problem solving, understanding multiple perspectives, and use of graphing calculators will be stressed.

Probability and Statistics
Full Year Course
Prerequisite is AGS 1 or equivalent
This elective course is equivalent to a first-semester college statistics course. Students will learn concepts and tools for collecting, analyzing and drawing conclusions from data. Students learn under four broad conceptual themes: 1) Exploring Data: Describing patterns and departures from patterns, 2) Sampling and Experimentation: Planning and conducting a study, 3) Anticipating Patterns: Exploring random phenomena using probability and simulation, and 4) Statistical Inference: Estimating population parameters and testing hypotheses. Due to the rigor of the AP curriculum, a non-AP version of statistics will be concurrently offered. Please see the instructor to determine which course placement is most appropriate for you.

AP Calculus AB / Calculus (non-AP) This elective course is equivalent to a first-semester college calculus course. Students will engage in the following behaviors to achieve conceptual understanding: reasoning with definitions and theorems, connecting concepts and representations, implementing processes, building notational fluency, and communication of ideas. As prescribed by the College Board, students will study three main ideas: limits, derivatives, and integrals. The notion of a limit helps us understand the behavior of a graph near a point and serves as the basis for determining continuity. In a hopeful sense, limits are much less about what things *are* and much more about what things *should* be. Derivatives give us the language of covariation: describing the rate of change of one variable in terms of another variable. Applications of derivatives include, but are not limited to, slopes of tangent lines at a point, analyzing graphs, rectilinear motion, Mean Value Theorem, related rates, optimization, and growth and decay. Integrals allow students to use the language of limits to solve problems involving area, volume, rectilinear motion, and accumulation. Students will study the Fundamental Theorem of Calculus as means to translate between the languages of derivatives and integrals. Due to the rigor of the AP curriculum, a non-AP version of calculus will be concurrently offered. Please see the instructor to determine which course placement is most appropriate for you.





Computer Science Principles
AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs.

They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

The following are the major areas of study, or big ideas, that serve as the foundation of the course, enabling students to create meaningful connections among concepts and develop deeper conceptual understanding:

■ Creative Development: When developing computing innovations, developers can use a formal, iterative design process or a less rigid process of experimentation, and will encounter phases of investigating and reflecting, designing, prototyping, and testing

■ Data: Data are central to computing innovations because they communicate initial conditions to programs and represent new knowledge.

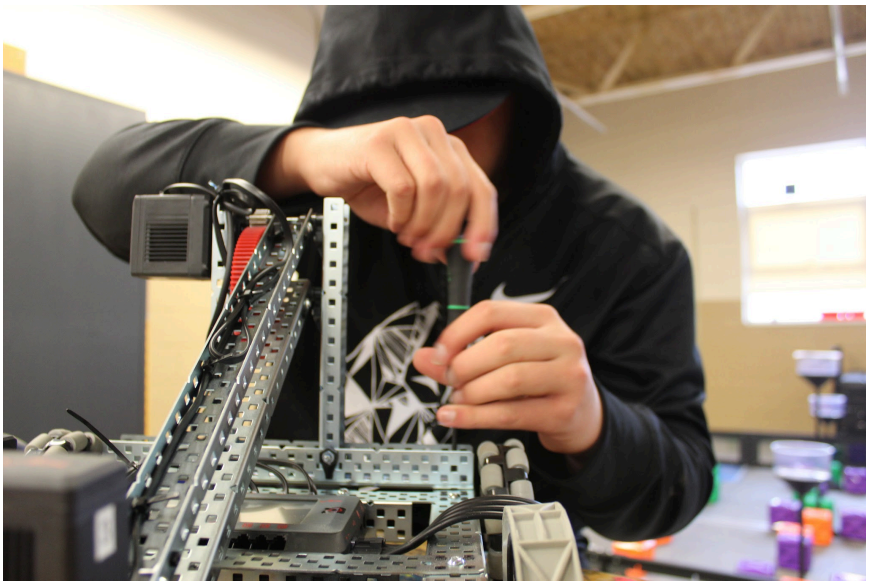
■ Algorithms and Programming: Programmers integrate algorithms and abstraction to create programs for creative purposes and to solve problems.

■ Computing Systems and Networks: Computer systems and networks are used to transfer data.

■ Impact of Computing: Computers and computing have revolutionized our lives. To use computing safely and responsibly, we need to be aware of privacy, security, and ethical issues.

During this full year course students will create many programs using JavaScript which is considered by many experts to be the among the most commonly used computer language in the world today.

HS Robotics I: This course provides an introduction to robotics for students with no programming background using Vex Robotic kits. Using the CCSS math practices, students will learn to construct, control and program these robots through investigative and exploration activities. Research projects will expose the students to the engineering process.



HS Robotics II:

Prerequisite is the successful completion of Robotics I or equivalent experience

This course will continue the development of the engineering skills necessary to advance previous robot programs and design. Students use mentoring to increase their understanding of required programs. More rigorous research projects or activities will be expected. Students may partake in the regional Vex Robotics competition.

Math for Everyday Life

Full Year Course

Students in this class build their numeracy skills, hone problem-solving strategies, and work with resources geared to, and differentiated for, individual needs. Common Core Math Practice Standards are reinforced throughout this course. Along with increased mathematical competency students will practice their organizational skills, note-taking strategies, personal management skills, productivity, reflection and revision. Areas of focus include financial literacy, architecture, and foundational skills.

Flexible Pathways: Math

VTVLC

- Online classes can be taken to compliment RU standard course offerings, but there may be redundant topics or skills.

ILOs:

- Talk to your counselor for more information or if you have an idea for an ILO in this area.
- The offerings of the Innovation Center may be well-suited to an ILO in math.

Science

> Somewhere, something incredible is waiting to be known.
>
> -Carl Sagan, astronomer

Mission: *The Science department believes that students should draw from a rich variety of experiences with living and physical systems and apply that knowledge to real-world situations. Students should ask questions, seek answers, and evaluate claims based on qualitative and quantitative evidence, and effectively communicate the results. Our mission is to enable students to act as informed citizens and even contribute to the ever-expanding body of scientific work.*

Typical course sequence: RU middle school core science NGSS standards start in 6th grade. The 7th grade NGSS course at RU focuses on Energy in Earth Systems, and in 8th grade the focus is on Waves and Biological Systems. In high school, students take at least three core courses, which prepare students for a diversity of pathways through senior year and into college and career - including programs at RTCC, AP courses at RU, and beyond. Our core science courses also prepare students for the Vermont Science Assessment, a standardized test taken in 11th grade. The three core high school courses are:

Integrated Science I: Earth Science with Chemistry
Full Year Course
This course serves as an introduction to Earth science with an emphasis on the chemistry of and human impact on the environment. We will examine surface and atmospheric processes including, but not limited to, the relationships between resource extraction, natural hazards, and climate change and human development. We will use hands-on investigations and real world examples to explore these key concepts.

Integrated Science II: Biology with Chemistry
Full Year Course
This course offers an introduction to the principles of **biology** with emphasis on **biological** chemistry, ecology and homeostasis, cell structure and function, gene expression, and patterns of inheritance. We will be using hands-on labs and real-world examples to explore the key concepts in biology.
Prerequisite: Integrated Science I: Earth Science with Chemistry

Integrated Science III: Space Physics
Semester Course
This course considers questions such as “how did the Universe begin? How do stars generate the different elements that make up our world? How did the Earth form, and how does energy from the Sun’s core arrive here?” This course provides an introduction to the principles of physics through the lens of space. We will be using hands-on investigations to analyze the phenomena of space. (RU students at RTCC also take the semester of Integrated Science III to help ensure coverage of standards and help with their readiness for the 11th grade assessment.)
Prerequisite: Integrated Science I: Earth Science with Chemistry

Chemistry
Full Year Course
This course offers a foundation in chemical concepts and focuses on physical chemistry. Students will learn how the atom and its particles determine the nature and properties of compounds that make our world work. This course has a heavy emphasis on science skills including explanations and argumentation, developing and conducting investigations, and reading informational texts. Basic algebra skills will be employed to better understand the content; dimensional analysis is the backbone of most calculations. This course will help students who wish to take AP Physics and AP Biology. Prerequisite: Integrated Science 1 and AGS 1 or instructor approval

AP Physics 1: Algebra-Based
Full Year Course
This course follows the College Board Curriculum for AP Physics 1. It offers both hands-on and theoretical approaches to understanding forces, momentum and energy and applying them to everyday situations. Topics covered include kinematics, projectile motion, statics and dynamics, rotational mechanics, pressure and fluids. Algebra is used throughout this course as mathematics is the backbone of physics. Students who are interested in engineering, technical or science careers are encouraged to take this class. Prerequisite: AGS 1

AP Environmental Science
Full Year Course
AP Environmental Science is an interdisciplinary course that focuses on ecological processes, human impacts on the earth, and how to resolve or prevent natural and human-made environmental problems. Students who complete the course will be expected to apply scientific concepts, principles, and methodologies to real-world examples and problems.

Applied Science
Semester or Year Long Course
Applied Science is a hands-on, project-based course that explores how scientific concepts are used in the real-world. Students investigate a variety of fields including health sciences, environmental science, engineering, diversified agriculture, forensic science, and skilled trades through practical applications and problem-solving experiences. Each unit is organized around a specific career pathway, allowing students to engage in authentic tasks such as designing solutions, conducting experiments, analyzing data, and using industry-relevant tools and techniques. Emphasis is placed on developing transferable skills including critical thinking, collaboration, communication, and scientific/technical literacy.

Forensic Science
Semester Course
This semester-long course will introduce students to forensic science, and skills and practices used in crime scene investigation and other applied sciences. Students will learn how to investigate, and problem solve with lab activities and mock crime scenes, as well as explore the many careers paths and applications of this science.

Marine Ecosystems
Semester Course (Fall)
In this semester-long course, you will learn how CORAL REEFS, SEAGRASS BEDS and MANGROVE FORESTS support specialized forms of ocean life and how they support one another as well. Also, learn how we, as humans, can contribute considerably in the preservation of marine organisms/systems that support overall EARTH-HEALTH. This course may culminate in a week-long marine biology field-trip.

Human Anatomy and Physiology
Semester Course (Spring)
This semester-long course will take you on a walk through the human body seeing human tissues magnified 400 times with HIGH-POWERED MICROSCOPES and learn how your many billions of cells work together to allow you to do all the interesting things you do. Everything from seeing, hearing, tasting, smelling and the way your body parts work together to perform exercise will be explored.

Flexible Pathways: Science

ILOs:
- Talk to your counselor for more information or if you have an idea for an ILO in this area.
- The offerings of the Innovation Center may be well-suited to an ILO in Science.

CBLs and the IC:
See above for Community Based Learning classes sometimes taught in collaboration with the Innovation Center:
- Entrepreneurship & Manufacturing
- Innovation Management

Future Offerings:
Our offerings shift based on enrollment and need. Sometimes we rotate offerings from one year to another. Potential future offerings include:

AP Biology
The goal of this course is to help students develop a foundation in college-level biology. Students will engage as scientists in systematically investigating the world around us and building on the understanding of prior scientific work. In addition to appreciating the inherent beauty and elegance of living beings, throughout the course students will make connections between ideas in the course as well as to current societal issues. Daily use of scientific thinking will help students explore concepts in an authentic context while honing key skills. Students will be expected to take the exam in May. Prerequisites: Proficiency in science standards 1 - 3 or approval from the instructor.

Physics
Full Year Course
This course offers both hands-on and theoretical approaches to understanding forces, momentum and energy and applying them to everyday situations. Topics covered include kinematics, projectile motion, statics and dynamics, rotational mechanics, pressure and basic electricity. Algebra is used throughout this course as mathematics is the backbone of physics. Students who are interested in technical or science careers are encouraged to take this class. Prerequisite: Algebra I.

World Languages

> If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart. - Nelson Mandela

***Mission**: In the World Language department, we believe language and communication are at the heart of the human experience. The world we live in requires individuals to communicate and make connections between cultures. The World Language department seeks to advance target language proficiency and cross-cultural competency. Our goal is for students to be able to speak and understand a world language and to be curious about and empathetic toward other cultures.*

Typical course sequence: Students can progress from Level 1 through Level 4/5 at RU. Every level of language class builds upon the previous year's learning.

State Standards require some familiarity with World Languages, and at RU we require a basic level of proficiency that typically comes with at least one year of study, achieved in either MS or HS. However, a minimum of two years of high school study is an expectation of most four-year colleges–with many colleges expecting students to have taken three or four years of language.

World Language course goals: Students in all levels of the world language program will be working towards proficiency in five standards:

WORLD LANGUAGES STANDARDS

Language Acquisition Behaviors Students engage in behaviors that facilitate development of skills in level-appropriate forms of non-native language communication.	**Communication** Students can communicate about aspects of their daily lives in a non-native language.	**Language Mechanics** Students understand the nature of language through comparisons of the non-native language to their own.	**Exchange** Students connect with non-native language cultures.	**Cultural Appreciation** Students are empathetic toward other cultures and understand how language carries culture, values and beliefs.

French I

French I is a beginning level language course designed to develop basic speaking, reading, writing and listening skills. Students will focus on building vocabulary and grammar, as well as an awareness of the history, geography, culture, and ways of life in various French-speaking countries of the world. The cultural focus of this class is meant to highlight France and their cultural heritage. Students will be able to ask simple questions, talk about themselves and their environment and will be able to grasp the meaning of simple texts, videos, and songs in French.

Advanced French
Full Year Course
This course reviews and expands on the basic communicative skills taught in French I. Students will be capable of more complex conversational exchanges in the present tense. Students will progress from memorized words and phrases to “sentence-level” dialogue to “paragraph-level” conversations and will become comfortable reading and responding to longer texts in French. Students will focus on building vocabulary and grammar, as well as an awareness of the history, geography, culture, and ways of life in various French-speaking countries of the world. Students will use more complex structures to ask questions and express opinions. The course will have a cultural and linguistic focus on music and food.



Spanish 1
Full Year Course
Spanish I is a beginning level language course designed to develop basic speaking, reading, writing and listening skills. Students will focus on building vocabulary and grammar, as well as an awareness of the history, geography, culture, and ways of life in various Spanish-speaking countries of the world. The cultural focus of this class is meant to introduce students to the world’s many Spanish-speaking countries and their cultural heritage. Students will be able to ask simple questions, talk about themselves and their environment and will be able to grasp the meaning of simple texts, videos, and songs in Spanish.

Spanish 2
Full Year Course
This course reviews and expands on the basic communication skills and cultural knowledge from Spanish I. Students will be capable of more complex conversational exchanges in the present tense, and will develop their listening comprehension skills and be encouraged to increase their speaking skills. They will progress from “sentence –level” dialog to “paragraph –level” conversations and will become comfortable reading and responding to longer texts in Spanish. The course will have a cultural and linguistic focus on music and food.

Advanced Spanish
Full Year Course
Students in this course will review the grammar principles learned in Spanish I and II and consider new themes not presented there. Reading, writing and conversational skills will be sharpened as we study the history, geography and culture of several of the twenty Spanish-speaking countries in the world. Using Spanish in class is a priority at this level and students will be reading and responding to stories, films, podcasts, songs, and other authentic media from the Spanish-speaking world. Students will create dialogues, videos, and presentations in which they talk about the past, present, and future. Students will continue developing their ability to communicate in Spanish, expanding on the grammar and vocabulary from previous years through thematic cultural units that deepen their knowledge of history and culture and address current issues. In addition, students will focus on improving written communication. They will write short essays in response to cultural events and issues in the United States and Spanish-speaking countries. Readings, films, class discussion and music will facilitate their understanding of the language. The class will also incorporate group activities and accessible technology. At the end of the year students will have deepened their understanding of the language and have a broader knowledge of the cultures, art, history and literature of the Spanish-speaking world.

Flexible Pathways: World Languages

- VTVLC: Online classes can be taken to complement RU standard course offerings, but there may be redundant topics or skills.
- Dual Enrollment: College courses can be accessed virtually or in person using the VT dual enrollment system and local colleges.
- Other College/Online Courses: Students/Families can research and pursue other language courses. The world language department will review these courses before RU grants high school credit.

Future Offerings:

Our offerings shift based on enrollment and need. Sometimes we rotate offerings from one year to another. Potential future offerings include:

French III
This class is designed to expand upon the material covered in French I and II, as well as begin to use more authentic texts and resources to expose students to a wider variety of topics beyond personal environments and relationships. Reading, writing and conversational skills will be sharpened as we study the history, geography and culture of several of the 29 French-speaking countries in the world. Using French in class is a priority at this level and students will be reading and responding to stories, films, podcasts, and authentic media from the French-speaking world. Students will create dialogues, videos, and presentations in which they talk about the past, present, and future. Through the study of authentic sources, students gain an appreciation for the breadth of cultures, beliefs and customs across the francophone world.

Oh la, la, la-French Culture, Cuisine and Conversation PBL: How does cuisine play a role in national identity? (World Language standards, year- long)
In this PBL challenge, students will continue to work on their French communication skills while exploring the rich traditions of French culinary arts. In exploring social customs and norms of food culture, both historical and contemporary in France.Then we will look into how those were brought to countries colonized by the French and how the food traditions of those colonies influenced French food culture.Additionally, students will extend language learning through service and collaborative work, while building community. Career Pathways: This PBL challenge will appeal to students interested in career fields such as political science, anthropology, social sciences, foreign language, French literature, and culinary arts.

Fine Arts: Visual Arts, Music, Theater

> "The function of art is to do more than tell it like it is - It's to imagine what is possible."
>
> ~ Bell Hooks

Mission: Our mission is to create an environment that encourages students to discover and celebrate their unique artistic voices. By fostering a culture of curiosity, collaboration, and resilience, we empower students to take risks, learn from failures, and develop the confidence to express themselves authentically. Through exhibitions, community engagement, and interdisciplinary projects, we seek to instill a lifelong passion for the arts and contribute to the cultural richness of our school and beyond. Together, we envision a future where every student leaves our program with a profound appreciation for beauty, a mastery of artistic skills, and the ability to use their creativity as a powerful tool for personal and societal enrichment.

Typical course sequence: Students minimally take one year of fine arts classes in HS, and many students take many more than that! Some courses have prerequisites and others do not. Most classes can be taken in any order or sequence. Please see descriptions below and work with your counselor to put together a pathway that corresponds to your needs and interests.

Visual Art

Yearbook
Full year course
Strict deadlines need to be met in order to produce professional quality publications, so this course will require good attendance, athletic/event attendance, and multi-tasking skills. **Assignments will be within the school and students are expected to attend and photograph at least 3 athletic home games.** Students will learn basic skills to create our printed yearbook. This includes the basics of photography, camera usage, and compositional skills. We will also focus on layout, color theory, typography and page design. Assignments will include interviewing techniques, caption writing, and printed story methods; including polls, surveys, feature stories, and headline construction. **Good social skills are needed as you will be running errands around the school and conducting interviews with fellow staff and students.** A special emphasis will be on staying organized, teamwork, critiquing, editing, and meeting authentic deadlines.

Elements of Art
Semester Course
Elements of Art is a foundational high school visual arts course designed to introduce students to the core principles and building blocks of artistic expression. Students will explore the seven elements of art—line, shape, form, space, color, value, and texture—through hands-on projects using a variety of traditional media. Emphasis is placed on creativity, experimentation, skill development, and visual literacy.

Principles of Art
Semester Course
Principles of Art builds on foundational skills with a focused exploration of the principles of design: balance, contrast, emphasis, movement, pattern, rhythm, and unity. While students do not need to be "advanced" artists, the course challenges them to think more critically about composition and visual organization. Through a variety of media and project-based work, students will learn how to intentionally apply design principles to create more dynamic and meaningful artwork.

Middle School Art
Semester Course
This course is designed to provide grade 7 and 8 students with basic skills in drawing and painting with an emphasis on drawing from both direct observation, perspectives, artistic styles and grid work. The student will be practicing many of the principles of art through contour drawing, negative space, and value. There will be color-mixing, art-history application, fundamentals and theory. A variety of mediums, including pencil, pastel, charcoal, watercolor, and acrylic will be the focus.



Music

Advanced Band (Instrumentalists 9-12)
Full Year Course
Band is for students who enjoy making music with friends! By playing instruments in various styles and settings, students will improve their ability to perform on their instrument, both alone and with others. All instruments are welcome! Band members will participate in various concerts throughout the year at which participation is required. Students will also have the opportunity to audition for both the Winooski Valley District Music Festival and the All-State Music Festival. **Instrumental proficiency and music experience is a prerequisite for this class.**

Beginning Band (Instrumentalists grades 7-9)
Full Year Course
This class is a great opportunity for students to learn a new instrument or get better at the one that they have been playing. Band members will learn the fundamentals of playing their instruments, reading music, and how to play with others in an ensemble. Advanced players will be able to participate in the Winooski Valley Music Festivals. All skill levels are welcome!

High School Chorus Grades 9-12 / Middle School Chorus Grades 7 & 8
Full Year Course
Chorus is open to all students who like to sing! Proper methods of vocal production, listening, expression and musicianship are emphasized. Music from differing periods, composers, styles and cultures will be covered, exposing students to different languages, forms and eras of music. Participants learn to read music notation. Chorus members will participate in various concerts throughout the year at which participation is required. Students will also have the opportunity to audition for both the Winooski Valley District Music Festival and the All-State Music Festival. Prior experience is not a requirement.

Honors Music Theory & Composition
Semester Course (Fall)
Music theory & composition combines in-depth learning of melody, harmony, rhythm, form, analysis and composition for those who wish to gain a deeper understanding of how music works. Students will practice these skills through reading, writing, listening to, and analyzing classical and contemporary popular music. Students will develop ear training skills with regular sight reading and sight singing practice and will apply all theory concepts learned in the form of compositions using Flatlo music notation software. This is a course for the serious music student.

Music for The People PBL: How does music fit into our daily life and the life of your community?
Performing arts standards, Semester course (Spring)
In this PBL challenge, students will develop their musicianship while exploring the diversity of music for the small ensemble through writing and arranging music. In addition, students will delve into music and culture, both in historical and contemporary timelines, to better understand the role of music in creating community, change-making, and storytelling. The PBL will conclude with a student-designed performance that extends beyond the classroom and provides for connection to the wider-community. Career Pathways: This PBL challenge will appeal to students interested in career fields such as music, arts, theater, sound production, education.

Future Offerings:
Our offerings shift based on enrollment and need. Sometimes we rotate offerings from one year to another. Potential future offerings include:

Music Exploration
Semester Course (Anticipated Fall 2027)
This course is designed to introduce students to the fundamentals of music through hands-on exploration of a variety of units to include: musical instruments (percussion, keyboard, and guitar) music theory, music production, film and video game music analysis, and popular music. Students will develop basic music reading and listening skills, ensemble awareness, and an appreciation for a wide range of musical styles and cultures.

Electronic Music & Sound Production (EMSP)
Semester Course (Anticipated Spring 2028)
This music course is a comprehensive class in understanding electronic music and sound production design and techniques. In this semester-long course, students explore the intricacies of sound and music for film, electronic composition, and audio methods. This course is designed to provide students with instruction in the use of a computer for composing original music. Topics will include, but are not limited to music theory, history of electronic music, listening and analysis, form and structure, synthesizers, midi instruments and software, audio recording, mixing and effects, remix, sampling and copyright, live performance, film scoring and podcasting. Students will use MIDI and software to complete a variety of film and music production projects.

Theater

Dance
Full Year Course
This course is for students with an interest in dance. We will begin each class with a warm-up on stage. Over the semester students will learn routines in various techniques such as tap, ballet, hip hop, jazz, and modern dance. Dance students will examine, question, celebrate, and reflect on a multitude of dance traditions and functions from around the world. Students will perform dances at both our Fall and Spring Night of The Arts events. Students will learn techniques to choreograph a dance together as the final project in this course. No prior dance experience is necessary. Please note this class meets after school. This course is open to students in grades 7-12.

Mainstage Theatre Performance
Full Year Course
Class will be held on stage in the auditorium. This course is highly collaborative and will exercise your creative muscles to exhaustion! There are two components to this course, performance and production. Students will hone their acting skills as well as learn basic techniques in sewing, prop construction, makeup, and set design for the theatre. This class will attend at least one live performance during the school year. *Students who are actively involved in RU's Drama program are encouraged to enroll.* This course is open to students in grades 9-12.

*

Flexible Pathways: Fine Arts

ILOs: Some common Independent Learning Opportunities in this subject area include:

- **Creating an Artist Portfolio**: Would you like to get a college degree in gaming art and design? Or would you like to work for a company like Pixar? Or maybe you are interested in studying Fine Art in college? Most colleges and universities require an art student to present a portfolio during the admissions process. An ILO in this area will help you. Students will research the portfolio requirements of leading art schools like RISD (Rhode Island School of Design), Full Sail University, and SCAD (Savannah College of Art and Design). The challenge will be to compile a professional-quality portfolio that communicates and demonstrates fluency in essential arts processes and skills.
- **Music, Theater, Visual Arts**: If you are involved in a structured learning experience in any of these - or other fine arts - areas, you may be able to develop an ILO to support and document the work. An ILO in this area may be done instead of or in addition to a traditional fine arts course.

Practical Arts

> Intelligence and skill can only function at the peak of their capacity when the body is healthy and strong.
>
> - John F. Kennedy

Mission: The Mission of the Practical Arts Department is to supply students with the resources to prepare them to make healthy, informed choices for their present and future.

Physical Education

My Physical Best I

Semester Course

Learn the skills necessary to develop lifelong fitness. Team sports and individual fitness activities are used as a vehicle for introducing strategies for assessing personal fitness levels, goal-setting, and building a foundation for understanding the health and skill-related components of physical fitness. My Physical Best I provides an experience through which all students recognize the value of physical activity for health, enjoyment, challenge, self- expression and/or social interaction.

My Physical Best II

Semester Course

Deepen your understanding of the health and skill-related components of physical fitness through an array of team sports and individual-performance activities. It is strongly recommended that all students complete My Physical Best I (MPB1) prior to this course. A basic understanding of the principles of training, target heart rates, and the FITT formula as they apply to personal fitness levels will be essential for your success. The concept of wellness and the importance of striving for optimal levels of health are the cornerstones of this course and are exemplified by a capstone project where students develop and maintain a personal fitness portfolio.

Flexible Pathways: Physical Education

PBLs: PBL electives that may meet graduation standards in this subject area include:

- **Movement Exploration**

See the PBL offerings section for more information!

ILOs: Some common Independent Learning Opportunities in this subject area include:

- **Varsity Athletics ILO:** Students who participate in 2 seasons of a varsity athletic team can receive up to 0.5 years of PE credit
- **Independent Learning Opportunity in PE:** The PE ILO is a full semester independent course for students to pursue an interest in physical education that may not be offered in a traditional PE class. Students will work independently on a personal fitness plan and record their progress through weekly journal entries. Students will also be required to research and review eight articles related to their program over the semester. The journaling and article reviews should address the National and VT State Standards in Physical Education as well as personal insights and experiences gained in the

process. Because this is independent work, it is incumbent upon the students to be responsible for meeting deadlines and requirements each week. Unless agreed upon in advance, a PE ILO is offered as pass/fail. The goal is to develop physically literate individuals who have the knowledge, skills and confidence to enjoy a lifetime of health and physical activity.

Talk to your counselor for more information!

Health

Health Education

Semester Course

RU Health Education is designed to assist students in developing life skills to maintain and improve their health, prevent disease, and reduce health-related risk behaviors. The course allows students to acquire and demonstrate health-related knowledge, skills, and practices. The course is required for one semester. Topics of instruction include: Adolescent Brain Development, Personality/Psychology, Behavior Modification/Change, Stress Management, Depression/Suicide Prevention, Loss/Grieving, Chemical Addiction, Media Literacy, Human Sexuality/Relationships. The “Reality Works” baby project is a requirement for completion of the course. Historically, students have taken this class in 10th grade, but this semester-long class is open to students in any high school grade.

Life Skills

On Your Own

Semester Course

Life Skills is designed to increase student knowledge and skills necessary for everyday living that will serve them well in their postsecondary lives. The course emphasizes goal-setting, decision making and problem solving, communication, healthy lifestyles and relationships, nutrition, personal safety, citizenship and consumerism. The curriculum will offer students the emotional, social and intellectual tools needed to achieve success in life – on a personal level, an interpersonal level, and within their community and work places.

Driver Education

Driver Education

Semester Course

The Driver Education program at RU is based on basic driving systems. The focus is to assist students in becoming low-risk motor vehicle operators. Emphasis is placed on responsibility in every aspect of their participation in this course. Students will have to demonstrate that they possess the maturity, responsibility, and skill potential for operator license possession. The Driver Education department at RU recognizes that thirty hours of classroom and six hours of behind the wheel instruction cannot produce a skilled driver without parental assistance and support. The number one killer of youth ages 15-20 is traffic crashes. Parents, students, and teachers, working together, can be much more successful at turning this statistic around. **Prerequisites: A student must have his/her permit** prior to the first day of class and a copy of the permit must be given to Student Services one month prior to the first day of the class. Students must sign up for Driver's Education by June 1st for the upcoming fall semester and by December 1st for the upcoming spring semester. There is limited space in Driver’s

Education classes. Registration will only be permitted if there are open seats. Seniors will be given preference only if registering, and having their permit, prior to the deadlines noted above. Prior to the deadline, non-seniors will be registered based on the date of procurement of permit, not by date of sign up for the course. Any open seats after the registration deadlines will be available for those with a permit on a first come, first served basis.

Outdoor Education
Semester Course
Students will learn and participate in fishing, archery, outdoor cooking, campfires, shelter building, trail building, kayaking. Students will be introduced to basic bushcraft and essential survival skills. Students will learn about and experience the mental and physical health benefits of spending time outside. Students will be introduced to mindfulness and nature awareness practices and social and emotional learning competencies. Students will be expected to go outdoors regardless of the weather and should dress appropriately. In the winter students will snowshoe, cross country ski, ice skate, build igloos and learn to identify animal tracks, sledding.

Primitive Technology and Art
Semester Course
Students will create technology and art created from or fashioned using natural elements found in the wild. This class encompasses a wide range of skills and knowledge related to wilderness survival and art history. The classes will include crafting tools, building shelters, studying plants, making bowls, metal working and creating indigenous art. The focus is on using materials available in the environment rather than relying on modern tools or resources when possible.

Randolph Technical and Career Center

Note: For the most up-to-date description of RTCC offerings, visit: https://orangesouthwest.org/rtcc

Mission: The Randolph Technical Career Center is committed to providing students with a challenging academic and technical education in a supportive, engaging, and respectful environment.

Randolph Technical Career Center Profile

RTCC students come from the seven regional communities of Bethel, Chelsea, Northfield, Randolph, Rochester, South Royalton, and Williamstown, to form a unique school and student body. All day technical program offerings give students the opportunity to take advantage of many leadership and community-based activities including work experiences and community service projects throughout the region. Comprehensive RTCC programs combine applied academic skills with technical education competencies that promote lifelong learning for students.

Students have the opportunity to earn industry recognized certificates, earn dual enrollment credits, earn scholarships to college, and participate in work-based learning to earn experience in their programs.

Planning a Technical Program

Students may choose a program in which to participate at the Randolph Technical Career Center. The programs are available to all students who have obtained junior or senior status at their high school. Prior to attending RTCC, students are expected to have completed most of their graduation requirements.

Admission Process

Grade 10 or 11 students should meet with their School Counselor after determining general career interest areas. The School Counselor will provide the student with an application for the student and their parents to complete. The School Counselor will forward this application, along with a student's transcript, to RTCC for consideration.

Entrance Requirements

Those students attending RTCC will fulfill graduation requirements for the Senior Project by completing the RTCC Project. The Technical Center will make companion courses at RUHS available to students enrolled in a technical program. Any exceptions to the above requirements must be reviewed by the student's counselor and the RUHS Director of Student Services. The admission procedure would include a formal application submitted for review by the RTCC Admission Committee. All students are required to take English. Some students may also be required to complete their remainder Academic Requirements at Randolph Union High School. .

Requirements for joining RTCC as a Senior:

Students must have successfully completed the following courses prior to the senior year.

English	3	full years
Math	3	full years
Science	3	full years
Social Studies	2	full years
US History	1	full year
P.E.	1.5	years
Health	.5	years
Fine Arts	1	full year

If admitted to RTCC as a junior, companion courses will be taken to meet senior year requirements while enrolled in the center.

Requirements for joining RTCC as a Junior:

Students must have successfully completed the following courses prior to the junior year:

English	2	full years
Math	2	full years
Science	2	full years
Social Studies	2	full years
P.E.	1.5	years
Health	.5	years

English & Humanities

English & Humanities is a separate class from the student's program in order to build foundational skills in English. Students develop reading, writing, critical thinking, and organizational skills while studying material that is related to the student's program. This makes the curriculum more relevant and useful. Program teachers plan closely with the English teacher to make sure students are successful and the subject matter is relevant.

Applied Math

Applied math is a separate class from the student's program in order to build foundational skills in math. Students continue to work on numbers, fractions, addition, subtraction, multiplication, division, and applied math skills that are relevant to the work done in their programs. This makes the curriculum seem more useful. The program teachers plan closely with the math teacher to make sure students are successful.

Sophomores may apply for acceptance into the Pre-Tech program. Students who wish to apply should do this with their school counselor. They must have a recommendation from their grade level team that includes their school counselor, administrator, and core academic teachers and a transcript that shows that they are ready for that program.

Technical Project: Portfolio
All RTCC students are required to present a Technical Project as part of their graduation from the center. The Technical Project is a digital portfolio project aimed at charting a pathway after high school, documenting student learning and creating a network of professional industry connections. The project is aligned with the student's technical program. Students will present their portfolio to the public during the RTCC Open House and they will present to their program Advisory Board.

Work Based Learning: "Co-op"
"Co-op" is a program available to all students depending on performance in their technical program, availability of suitable work experiences,individual need, completion of resume, cover letter, interview, and at minimum two job shadows . Four primary types of experience are available to students including: Job Shadows, Unpaid Training, Paid Work Experience, and Apprenticeship. Work schedules are individually designed and can occur during the school day and/ or after school. The purpose of "Co-op" is to enhance a student's performance in skills learned through their technical program and to give students an opportunity to learn new skills in a "real world" setting. Supervisor evaluations are the basis for grades that are factored into program grades.

Extended Learning Opportunities
All students at RTCC have the opportunity to earn Industry Recognized Certificates which can place them ahead in the competitive job market. Students can enroll in Dual Enrollment courses and or through the Fast Forward program and earn college credit in everyone of our programs. Each program offers through a variety of partnerships or agreements opportunities to extend the students' learning and create a portfolio of mastery to demonstrate learning as well as show potential colleges or employers.

Business Core Programs

Digital Filmmaking / Media Arts
The Digital Filmmaking /Media Arts program exposes students to a wide range of creative digital and media arts projects. The Digital Filmmaking and Media Arts program is not your typical classroom program. Our program is a fast paced and "hands on" program environment where students learn by collaborating in and outside the classroom and always at their own pace. This is the place where technology, skills and arts converge and where students get to explore their personal ideas and dreams. Over the course of a year students learn a variety of media, including graphic design, illustration, photography, animation, multimedia journalism and filmmaking. Graduates of the program are prepared to take immediate entry-level positions in a variety of businesses ranging from advertising and design companies to TV stations to film production companies; or enter a two- or four-year college program with the necessary technology skills, computer program knowledge, and confidence to conquer the next phase of their lives.

Mechanical Core Programs

Advanced Manufacturing and Fabrication
The Advanced Manufacturing program provides foundational skills and knowledge coupled with co-operative work experience, job shadow opportunities, and college exploration. This program enables students to gain the necessary background to obtain entry-level employment in these fields and/or pursue post-secondary education. The program employs a STEM curriculum to teach fundamentals of Science, Technology, Engineering and Mathematics. The STEM lab will employ teams working on solving problems defined by the curriculum or identified by the team on a collaborative project to

fostering imaginative and critical thinking. Manual and CNC machining activities will work in conjunction with lesson plans and study material to produce parts for practice, projects or certifications. NIMS machining certifications will be blended into assignments for students looking to continue on to Manufacturing Engineering Technology at Vermont Technical College or a similar program.

SolidWorks, an industrial strength CAD program, is used to give students hands-on experience designing parts to fabricate either through traditional Subtractive Manufacturing and CNC machines, or Additive Manufacturing via 3D printers. TIG welding and fabrication will be offered and used during the fabrication of parts and assembles used in projects and lessons. Certifications for TIG welding are also available through the American Welding Society.

Automotive Technology
The Automotive Technology program is designed to give students the opportunity to learn about the automotive field. Throughout the learning process, they will be able to practice and demonstrate their learning during hands-on activities. The program's curriculum reflects the Vermont Auto Dealers' Association standards and Vermont's Framework of Standards. Students who participate in this program will be given the chance to gain entry-level experience, receive specialization in a field through cooperative education experiences, and earn their state inspection certificate

Construction Trades Management
The Construction Trades Management program is designed to give students a combination of theory and practical application and real-life learning experience. Students will participate in a variety of off-campus projects that include several phases of construction work. These projects include carpentry, masonry, electrical, and plumbing. In addition to this, students are introduced to regional contractors and manufacturers and have apprenticeship opportunities.

Diesel Technology
The Diesel Technology program provides students with the opportunity to learn about Diesel Technology and demonstrate that knowledge through a variety of projects and written assignments. Students have the opportunity to work with customers, suppliers, and other professionals. The program culminates with an intensive, individualized project that tests students' knowledge.

Diversified Agriculture
This program provides students with the skills and knowledge necessary in pursuing careers and college studies related to today's diversified agricultural business. Graduates of this program become valuable assets as inventive problem solvers to small and large farms and related businesses in the fast growing agricultural economy. Renewable energy production, local food production, farm business management, mechanical and electrical systems as well as welding and fabrication are just some of the topics explored. Throughout the program, students will utilize scientific and project-based methods to gain insight into the solutions for pressing local and global environmental concerns.

Service Core Programs

Culinary Arts
Students participate in an award-winning and active program of coursework and food preparation in a well-organized production kitchen. Students have the opportunity to be engaged in all aspects of the field including: planning and cost estimating, purchasing, and preparation of an incredibly wide variety of

menu items. Students who complete the program are well prepared to enter two or four-year college programs or full-time employment including apprenticeships.

Criminal Justice

The Criminal Justice program introduces students to a broad range of career opportunities in the Criminal Justice and Public Safety/Emergency Management fields. It also aims to expose students to the latest available laws and technologies for these fields where applicable. This program assists students with making informed life decisions regarding their behavior, which might inhibit a future career in one of these careers.

Health Careers (Anticipated in 2027-28)

Health Careers is a program of study that affords students the time and opportunity to explore and examine varied careers within the healthcare industry. The program provides the information students need in order to make an informed decision regarding a health care path they wish to follow and includes coursework on such topics as anatomy and physiology, first aid and advanced life support, patient care and communication, medical terminology and the safe, competent development and delivery of fundamental care competencies.