2019-2020
Academic Year Programs
Age 3 - Grade 12
Weekend, Online, and Service-Learning
Once a student’s interests and skills are brought into focus, we create paths to build confidence and competence.

DR. PAULA OLSZEWSKI-KUBILIUS
DIRECTOR, CENTER FOR TALENT DEVELOPMENT

We’re excited to show you a sample of some of our academic year courses. Visit EXPLORE COURSES at ctd.northwestern.edu/courses to view them all!

The story of two educators impacting CTD students, through the power of numbers and social justice.

A Message from Our Leadership
The CTD Pathways Approach
Academic Year Program Types
CTD Programs: Grade by Grade
Family Education (Age 3+)
CTD Students: Discovering Pathways
Age 4 - Grade 3 Sample Courses
CTD Families: A CTD Family Journey
Grades 4-8 Sample Courses
CTD Faculty: Nurturing Young Minds
Grades 9-12 Sample Courses
CTD Alumni: Looking Ahead
Other Opportunities for Students
CTD Staff: Reaching into the Community
Admission Requirements and Eligibility
Tuition and Financial Aid
For Educators
Accreditation
Contact Us
At Center for Talent Development (CTD), we believe giftedness is not a trait, like eye color or fingerprint, but rather a journey which involves developing potential into achievement. We believe talent can be developed by matching an individual's interests and abilities with the right blend of opportunity, experience, and challenge.

CTD's signature Pathways approach helps high-ability students develop intellectually, socially, and emotionally. Once a student's interests and skills are brought into focus, we create paths to build confidence and competence, starting in early childhood and continuing through adolescence and adulthood.

Our expert instructors share our vision. We partner with highly trained, well-respected, and enthusiastic teachers who provide the most stimulating ways to explore their content areas. Students come away challenged, with passions stoked, and hungry for more. Students truly understand foundational concepts when they can apply critical-thinking, creativity, collaboration, and problem-solving skills to real-life situations. By providing learning experiences for students to solve authentic, real-world problems, we offer students a vision of how they may one day contribute to their field. We hope our advanced learners, the future leaders of our world, will successfully adapt to whatever career or life situation they encounter down the road.

DR. PAULA OLEZEWIKI-KUBLIUŠ
DIRECTOR, CENTER FOR TALENT DEVELOPMENT

A Message From Our Leadership

No two children are alike, just as no two CTD students have the exact same path.

CTD INSTRUCTOR

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DIRECTOR, CENTER FOR TALENT DEVELOPMENT
The CTD Pathways Approach

At Center for Talent Development (CTD), we believe advanced academic ability is not a trait, like eye color, but rather a potential for future achievement that requires continuous nurturing over time. Research suggests that talent development occurs when an individual’s aptitudes and interests are matched with the right combination of opportunities for intellectual, social, and emotional growth. CTD’s mission is to identify exceptional ability and potential in young students and provide paths toward adult achievement and creativity through opportunities to study and practice with peers, while being guided by expert teachers and adult professionals.

How Our Pathways Approach Guides Your Child

Our signature Pathways approach to talent development includes multiple options for high-ability students and their families as they grow both intellectually and psychosocially. Starting as early as age 3, a student can begin exploring an array of interests through various courses or pursue a passion by taking many courses in the same subject area. As they grow older, CTD programming includes opportunities to delve even deeper into subjects through numerous enrichment opportunities and advanced and accelerated courses. Our goal with our Pathways approach is to help students move from early potential to increased competency and expertise in areas of interest and/or ability.

As a parent you may wonder, how can I find the right pathway for my child? There is no right or wrong path, just one that matches your child’s interests and abilities. The Pathways approach at CTD provides endless opportunities to help your child reach their individual highest potential. No two children are alike, just as no two CTD students have the same exact path. CTD offers hundreds of courses and experiences in nearly every discipline at every grade level. This means you’ll always find the right opportunity at the right time in your child’s development.

To support each individual student, CTD has an exceptional approach to instruction. CTD instructors are chosen because they are content experts, engaged and passionate about their subject, and committed to developing the talents of their students. Each class stretches students’ problem-solving and critical-thinking skills, fosters their creativity and content expertise, and encourages intellectual risk-taking in a safe atmosphere. Students are inspired to become self-directed, lifelong learners and to continue on their path of talent development.

Dr. Paula Olszewski-Kubilius
Director, Center for Talent Development

I love math and I wonder how I can become a data scientist...

*This example was created to demonstrate a potential pathway for a CTD student. Students are able to explore many different pathways during their time at CTD.
Meeting the Needs of High-Ability Learners

Center for Talent Development (CTD) exists to help young people with exceptional academic potential and demonstrated talent reach their full potential. CTD's unique Pathways approach to talent development gives students opportunities to identify their academic strengths and interests, explore potential career trajectories over time, develop critical knowledge and skills, and monitor their progress.

ASSESSMENT

Understanding your child's academic potential and current level of achievement is an important first step in the talent development process. Assessments that identify your child's strengths also help determine what is needed in terms of enrichment, acceleration, or supplemental programming. However, by elementary school, the grade-level and computer-adaptive tests used in schools provide limited information about growth and readiness to learn for high-ability learners. CTD solves this problem by offering assessments designed for older students that measure college and career readiness, but, when given to younger students, also measure academic ability and potential. Once your child is assessed using a test better suited to their level of ability, CTD provides recommended pathways for talent development, normative data that provides a benchmark to measure academic ability and potential.

Visit ctd.northwestern.edu/assessment to learn more about the tests CTD uses and to register.

ADVANCED ENRICHMENT

Advanced Enrichment courses give students the opportunity to focus on specific areas of study. Students delve deep into topics and fields not typically a part of the core curriculum at school. These courses place emphasis on higher-order thinking, facilitate creative thinking, and provide early exposure to advanced concepts in developmentally appropriate ways. Classes are student-centered, exploratory, and interactive. These courses complement school-based curriculum by extending student learning to real-world problems, providing students with insight into cutting-edge, emerging careers.

ACCELERATION

Acceleration courses give middle and high school students opportunities to accelerate academically by accessing curriculum more commonly used with older students. Students in these courses can advance at a pace more in sync with how quickly they learn, allowing them to learn more, feel more engaged in class, maintain motivation, and develop healthy learning habits. CTD offers a wide variety of Acceleration courses through our Online Core Essentials courses (Grades 4-8), Online Honors and Honors Elective courses (Grades 9-12 and middle school students on an accelerated basis), and Online AP® courses (Grades 9-12).

CTD STUDENT

The most important thing I will take with me is the idea that anyone can be a leader by leading with their mind and heart.

ACADEMIC YEAR PROGRAM TYPES

WEEKEND

Center for Talent Development (CTD) offers a variety of weekend courses at multiple sites. CTD offers single-weekend Accelerated Weekend Experiences (AWE), as well as courses on eight Saturdays in fall and winter, or six Saturdays in spring. Sunday Advanced Enrichment courses are also offered at our Evanston site for extra flexibility for families.

Weekend programs allow students to:

- Work in a community of like-minded peers
- Participate in challenging, research-driven courses backed by one of the world's most respected universities
- Delve deeper into a single topic and develop an area of strength

ONLINE

CTD provides a variety of online and hybrid (a combination of online and in-person) courses. Online courses offer academically talented students from around the world the opportunity to take exceptional enrichment, high school honors, and Advanced Placement (AP®) courses in a flexible and interactive online setting. Courses are created specifically with advanced students in mind and taught by caring educators with deep content expertise.

Online courses allow students to:

- Explore subjects not typically offered in traditional schools
- Accelerate their learning through access to courses usually offered to older students
- Enjoy extensive one-on-one feedback from instructors
- Fit coursework into their busy schedules
- Develop critical thinking and creative problem-solving skills, as well as executive functioning skills

HYBRID

CTD Hybrid programs combine the best elements of online and face-to-face learning. Face-to-face course elements build relationships and support experiential learning, while online components support in-depth exploration and personalized guidance and feedback for each student.

SERVICE-LEARNING

Service-learning courses are offered through CTD's Civic Education Project (CEP). CEP combines hands-on education and community service to promote civic responsibility among young people. Through innovative school-year programs and summer courses, CEP offers students opportunities to learn and serve in communities across the country, developing the knowledge, experience, and leadership skills they need to make a positive impact on the world. For educators, CEP also offers custom-designed programs, teacher training, and support for service-learning efforts.

Service-learning programs allow students to:

- Engage in hands-on service in communities
- Learn about important social problems and inspiring solutions
- Develop and practice leadership skills
- Explore an exciting city and earn service hours while making a difference
- Build lasting friendships with bright, motivated peers
- Discover ways to create positive change

CTD has been accredited by the NCA CASI since 1994

Center for Talent Development
ctd.northwestern.edu
CTD Programs: Grades by Grade

Age 3 - Grade 3 Programs

Assessment
CTD does testing for both program eligibility and talent identification. For age 4 through grade 1, CTD offers the group-administered Measures of Academic Progress (MAP®), which assesses what students are ready to learn in math and reading. For age 4 through grade 3, CTD also offers the individually administered Kaufman Test of Educational Achievement (KTEA), which measures math and reading achievement. Students in grade 3 may take the PSAT™ 8/9 above-grade-level through Northwestern University’s Midwest Academic Talent Search (NUMATS). PSAT™ 8/9 is a test designed for students in grades 8 and 9, but when it is given to high-achieving students in grade 3, it identifies areas of exceptional academic talent and pinpoints what a student is ready to learn more clearly than grade-level tests. For more information, please visit ctd.northwestern.edu/assessment.

MAP®, KTEA, PSAT™ 8/9

PROGRAM DATES AND LOCATIONS
Dates and locations vary throughout the academic year.
Visit ctd.northwestern.edu/assessment for details.

PRICING
Varies by assessment ($65-$150)

Weekend Enrichment Program
Weekend courses provide students challenging, hands-on engagement, and outstanding instruction by teachers with experience teaching academically talented students. All courses in this grade band, including weekend courses, encourage a sustained, whole-family approach, offering parent education workshops, addressing the social-emotional development of academically talented learners, and guiding parents on how to support students in order to maximize their full potential. Weekend program sessions run for eight Saturdays and/or Sundays in fall and winter, and six Saturdays and/or Sundays in spring.

PROGRAM DATES
Fall 2019
Saturday, September 28 - November 16 (snow day November 23)
Saturdays (Evanston only), September 29 - November 24 (snow day December 8); No class October 19
Winter 2020
Saturday, January 18 - March 7 (snow day March 14)
Saturdays (Evanston only), January 19 - March 8 (snow day March 15)
Spring 2020
Saturday, April 11 - May 16
Saturdays (Evanston only), April 12 - May 17

CTD Student
This course is something that I will remember for the rest of my life.

TADPOLE ACADEMY PROGRAM DATES

Fall I 2019
Saturday, September 28, October 5, October 12
Sundays, September 29, October 6, October 13
Fall II 2019
Saturday, October 26, November 2, November 9
Sundays, October 27, November 3, November 10
Winter I 2020
Saturday, January 18, January 25, February 1
Sundays, January 19, January 26, February 2
Winter II 2020
Saturday, February 15, February 22, February 29
Sundays, February 16, February 23, March 1
Spring I 2020
Saturdays, April 11, April 18, April 25
Sundays, April 12, April 19, April 26
Spring II 2020
Saturdays, May 2, May 3, May 10
Sundays, May 3, May 10, May 17

Note: Information about Tadpole, CTD’s classes for three-year-olds and their caregivers/parents, is available in the parent-child course section of this catalog. Please see pages 12 and 13.

PROGRAM LOCATIONS
Saturdays: Evanston, Palatine, Naperville, and Chicago, Illinois
Sundays: Evanston

PRICING
Weekend Enrollment Program, Fall and Winter: $430
Weekend Enrollment Program, Spring: $340
Accelerated Weekend Experience (AWE): $265
Tadpole Academy: $120

Online Family Program
The Online Family Program is for bright, busy, and inquisitive students in Kindergarten through grade 3. Students and their parents/give-givers participate in short, flexible, online modules taught by expert instructors. No test scores or teacher recommendations are required for eligibility for this program.

PROGRAM DATES
Fall 2019
September 27 - October 25
Winter 2020
January 17 - February 14
Spring 2020
April 10 - May 8

PROGRAM LOCATION
Online

PRICING
Online Family Program $150

Note: Our Core Enrichment and Core Essentials online courses are available to students in grade 3. These nine-week courses are offered quarterly throughout the year. Please refer to the Online Program section on page 10 for more details.

Grades 4-8 Programs

Assessment
Students in grades 4-6 are encouraged to take the PSAT™ 8/9 through Northwestern University’s Midwest Academic Talent Search (NUMATS). PSAT™ 8/9 is a test designed for students in grades 8 and 9, but when it is given to high-achieving students in younger grades, it identifies areas of exceptional academic talent and pinpoints what a student is ready to learn more clearly than grade-level tests given in school. Students in grades 6-8 are invited to take the SAT® or ACT®, through NUMATS, which are the same tests typically taken by juniors and seniors to measure college and career readiness. When given to high-achieving students in grade 6 through 8 (above-grade-level), these tests provide helpful information about the content a student is ready to learn and assess readiness for accelerated programming. When applying for CTD accelerated courses, above-grade-level assessment is the preferred tool for determining eligibility. For more information, please visit ctd.northwestern.edu/assessment.

PSAT™ 8/9, SAT®, ACT®

PROGRAM DATES AND LOCATIONS
Dates and locations vary throughout the academic year.
Visit ctd.northwestern.edu/assessment for details.

PRICING
Varies by assessment ($65-$150)

Weekend Enrichment Program
Weekend courses range from single-weekend courses to accommodate flexible family schedules. Weekend courses are research-driven, offer a community of like-minded peers, and present opportunities for students to delve deeper into specific topics. Weekend courses encourage sustained, whole family engagement, offering parent education workshops and addressing the social-emotional development of advanced learners. CTD offers everything from in-depth, single-weekend accelerated weekend experience courses taking place on Saturdays in the fall, winter, and spring. Sunday advanced enrichment courses are also offered at our Evanston site for extra flexibility for families. For more information, please visit ctd.northwestern.edu/weekend.

PROGRAM DATES
Fall 2019
Saturday, September 28 - November 16 (snow day November 23);
Sundays (Evanston only), September 29 - November 24
Sundays (Evanston only), January 19 - March 8 (snow day March 15)
Winter 2020
January 18 - March 7 (snow day March 14);
Sundays (Evanston only), January 19 - March 8 (snow day March 15)
Spring 2020
April 11 - May 16
Sundays (Evanston only), April 12 - May 17

Center for Talent Development

ctd.northwestern.edu
**Hybrid Courses**

Hybrid courses combine flexible and in-depth online learning with in-person experiences at select sites that build community and provide opportunities for hands-on learning. This novel approach takes unique advantage of the potential of online learning to provide a personalized experience while providing active learning, laboratory, and service-learning experiences. For more information, please visit ctd.northwestern.edu/hybrid.

**Program Dates**
- **Laboratory Science: Human Anatomy** (Grades 6-9): Online component runs September 15 – November 17. One in-person weekend October 12-13 in Evanston, IL.
- **Civic-Hybrid: Human Rights & Youth Advocacy** (Grades 7-10): Online component runs September 2 - November 3. One residential, in-person weekend October 12-14 in Chicago.

**Program Location**
- Online and In-person

**Pricing**
Tuition varies by course. Please visit ctd.northwestern.edu/hybrid for details.

**Online Program**

- **Online Enrichment and Online Core Essentials Courses (Grades 3-8):**
  - Summer 2020: Start dates (2-credit equivalent): Up to 36 weeks with flexible start dates.
  - Fall 2019: September 15 - November 17
  - Winter 2020: January 15 - March 19
  - Spring 2020: April 11 - June 3
  - Summer 2020: June 15 - August 17

- **Online Honors Courses (Grades 6-12):** Up to 36 weeks with flexible start dates.
- **Online Honors Electives (Grades 6-12):** Up to 18 weeks with flexible start dates.

**Program Dates**
- **Online Enrichment and Core Essentials Courses (Grades 3-8):**
  - Online and In-person

**Pricing**
- Online Enrichment Courses: $565
- Online Core Essentials Courses: $595
- Special group pricing is available for schools enrolling five or more online students.

**Civic Week**

Civic Week, a program within CTD’s Civic Education Project (CEP), brings together outstanding students from around the country for service, learning, and leadership. The city becomes a classroom for students to gain hands-on experience with important social issues in fields such as health, human rights, law, politics, and urban development. Together with an experienced team, groups of 12 to 18 students engage in meaningful service, meet with top professionals and community leaders, and participate in hands-on learning in a fun and supportive living-learning community. For more information, please visit ctd.northwestern.edu/civic-week.

**Program Dates**
- **Civic Week:** November 17 - December 21
- **Program Location:**
  - Civic Leadership Institute, visit ctd.northwestern.edu/clii.

**Pricing**
- Civic Week ($4 days): $995

**Grades 9-12 Programs**

**Assessment**

Students in grades 9 are invited to take the SAT® or ACT®, through Northwestern University’s Midwest Academic Talent Search (NUMATS), which are the same tests typically taken by juniors and seniors to measure college and career readiness. When given to high-achieving students early (above-grade-level), these tests help inform course choices in preparation for college, help educators pinpoint what students are ready to learn now, and help make a case for accelerated placement. When applying for CTD accelerated courses, above-grade-level assessment is the preferred tool for determining eligibility. For more information, see the CTD Assessment web page.

**Online Program**

- **Online Honors and Honors Electives courses offer high school honors-level curriculum. Advanced Placement (AP) courses are aligned with College Board standards. Many schools limited access to AP courses to students in grades 11 and 12, but CTD allows academically ready 9th and 10th grade students to apply. All credit-bearing courses are offered in flexible formats with students enrolling throughout the year.**

**Program Dates**
- **Online Honors Courses (Grades 6-12):** Online component runs September 15 - November 17. One residential, in-person weekend October 12-13 in Evanston, IL.
- **Online Honors Electives (Grades 6-12):** Online component runs September 15 - November 17. One residential, in-person weekend October 12-13 in Evanston, IL.
- **Online Honors Electives (Grades 6-12):** Online component runs September 15 - November 17. One residential, in-person weekend October 12-13 in Evanston, IL.

**Program Location**
- Online and In-person

**Pricing**
- Tuition varies by course. Please visit ctd.northwestern.edu/assessment for details.

**Hybrid Courses**

Hybrid courses combine flexible and in-depth online learning with face-to-face service-learning experiences at select sites. Students engage in hands-on learning and work side by side with other bright, motivated students. They combine in-depth online study of complex contemporary issues with on-site service-learning experiences, which allow students to study topics up close and help make a positive difference through guided service experiences. Hybrid courses incorporate 1 to 2 weekend intensive experiences on Northwestern University’s Evanston campus or off-campus sites with unique resources relevant to course topic. For more information, please visit ctd.northwestern.edu/hybrid.

**Program Dates**
- **Laboratory Science: Human Anatomy (Grades 6-9):** Online component runs September 15 - November 17. One in-person weekend October 12-13 in Evanston, IL.
- **Weekend-Hybrid: Algebra I Honors (5-7):**
  - Fall 2019: September 28 - November 16. Meet up dates are October 5 and November 16.
- **Fall 2020: April 11 - May 16. Meet-up dates are April 18 and May 9.
- **Civic-Hybrid: Human Rights & Youth Advocacy (Grades 7-10):** Online component runs September 2 - November 3. One residential, in-person weekend October 12-14 in Chicago.

**Program Locations and Pricing**

Locations and pricing for hybrid courses vary by course topic. See ctd.northwestern.edu/hybrid for details.

**Civic Week**

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**Program Dates**
- **CTD offers Civic Week programs in Spring and Summer:**
  - For 2020 program dates, see ctd.northwestern.edu/civic-week.

**Program Location**
- Civic Week ($500): Summer

**Pricing**
- Civic Week ($4 days): $995

**Center for Talent Development**

ctd.northwestern.edu
Tadpole Academy
Tadpole Academy is a series of three classes for students age 3 and their parents/caregivers. Classes take place on Saturday and Sunday mornings in Evanston. No test scores are required for your child to participate. For more information, visit ctd.northwestern.edu/tadpole-academy. Sample class descriptions include:

Robot Friends (Age 3)
What is a robot? How do people tell robots what to do? How are robots and people the same? How are they different? Get to know a robot first-hand. During this class students will:
- Listen to stories about robots and discuss the role of robots in our world
- Learn to code a Bee-Bot using tangible programming
- Discuss the function, design, and characteristics of Bee-Bot robots
- Explore creative ways to represent Bee-Bot code, such as using symbols, blocks, and actions

Best Nest (Age 3)
What is a nest? What does “nesting” mean? How do birds build nests? What can people learn from birds? How can we build structure that are strong and comfortable? Pretend play as a bird and become a nest architect. During this class, students will:
- Listen to stories about birds and their nests
- Discuss the form and function of bird nests
- Experiment with different designs, materials, and construction methods to create their own nests

CTD PATHWAY: Tadpole Academy provides opportunities for parents and young children to explore new and familiar topics together by engaging in critical questioning and thinking, preparing children for independent participation in early childhood coursework in science, math, technology, and language arts.

Online Family Program
This program is for bright, busy, and inquisitive kindergartners through grade 3 students with parents or caregivers. Experience short, flexible, online modules taught by expert instructors with experience teaching academically talented students. These classes provide parents with playful, engaging curriculum to help them develop their child’s critical learning skills and to instill a love of learning in their child. For more information, visit ctd.northwestern.edu/online-family. Sample course descriptions include:

Crash Course: The Physics of Collisions (Grades K-1)
Mass, force, and momentum can be used to describe some of the most important principles of physics. In this course, hands-on explorations introduce Sir Isaac Newton’s ideas. Students are in the driver’s seat to discovery as they observe, predict, and experiment with crashes and collisions. During this course, students will:
- Explain mass, force and momentum, either through words or a demonstration
- Show the difference between force and momentum by changing variables to affect one or both
- Show the general relationship between force and mass, through a demonstration, illustration, or written explanation
- Set up a series of reactions, such as those in a Rubix cube machine, then use physics terminology to describe how each reaction will play out

CTD PATHWAY: This course provides playful exposure to physical science concepts. Skills developed through experimentation and design thinking provide the foundation for ongoing study of laboratory sciences and engineering.

PARENT-CHILD CLASSES

She had a fabulous time and learned a huge amount about a variety of science topics clustered around a creative theme. It was as though the course had been written for her.

Playing Geometry: Spatial Reasoning for the Fun of It (Grades 2-3)
As our spatial visualization skills improve, so do skills in math and other academic areas. As with other things we do for fun, we get better at spatial reasoning with practice, so let’s play geometry! Students and their families are invited to expand their understanding of the Platonic solids and exercise visualization skills through playful challenges and projects. During this course, students will:
- Identify and define each Platonic solid (tetrahedron, octahedron, icosahedron, hexahedron, dodecahedron)
- Explore solids and their nets through hands-on activities as well as visualization practice
- Explore rigid transformations on and off the coordinate plane
- Create a new game or challenge using spatial visualization and/or a grid or coordinate plane

CTD PATHWAY: This course provides opportunities for playful exposure to math concepts. Skills in spatial reasoning are foundational for ongoing study of engineering and math, especially geometry.

Seminars & Discussion Groups
CTD offers seminars for parents on a variety of topics. View our weekly in-person seminars held in Evanston, as well as our discussion groups held quarterly in Evanston, Chicago, Naperville, and Palatine at ctd.northwestern.edu/parent-seminars.

Further distance a family has traveled for CTD’s weekend program

2,000+ miles

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View all courses online at ctd.northwestern.edu/courses

Center for Talent Development

ctd.northwestern.edu
Poised to explore a future in medicine, KAYLEE credits a CTD Summer Program class with encouraging her scientific interests. Kaylee took Introduction to Biomedicine Honors three summers ago, and says she felt “immersed in the world of medicine” as she conducted lab work. “Biomedicine gave me the resources and tools I needed to excel academically, and sparked my interests in medicine that have greatly influenced my future,” says the rising high-school senior, noting that her plans for further study include medical school with a specialization in pediatric oncology.

For now, the self-described “inquisitive, driven, and passionate” Kaylee is actively seeking—and creating—opportunities for scientific engagement. Recently, she returned to the Northwestern campus to intern in a pulmonary research lab, and she plans to continue working with Northwestern through a neuroscience partnership with her school. The coming year also promises a journey to Costa Rica with her AP Biology class, where Kaylee will learn about biodiversity and conservation by exploring rainforests and assisting in research.

When not pursuing other passions—including learning Mandarin Chinese and performing with her school’s Latin dance team—Kaylee works to share her love of science with others. “I want to be a part of the wider efforts of making scientific education accessible to all students from all socioeconomic backgrounds,” Kaylee explains. She’s already founded a STEM club at an elementary school, drawing on her time in Introduction to Biomedicine as she leads the students. “CTD gave me the opportunity to explore science through many fun, hands-on activities, and my instructors always encouraged me to pursue my love of medicine,” she reflects. “From them I learned the importance of having strong role models in my life, and that led to me to strive to be that role model for the kids in my community.”

AVI is an eighth grader who has participated in ten different CTD courses, from Python Programming and Java Programming Honors to Effective Essay Writing and Pen to Podium. Avi says a honors-level writing course through CTD’s online program has been his favorite, “…because of the amazing writing questions the course gave, and how it improved my writing skills and made me rethink my writing process.” Avi is a talented writer and public speaker, to which he credits his constant practice in school combined with the extra practice he receives from his CTD courses. “Both these skills have not only been valuable to me academically but have also helped by giving me self-confidence,” says Avi. As an avid explorer of other cultures, Avi recently took a trip through Eastern Europe—finding the architecture, food, and people “amazing and interesting!” In the future, Avi would like to explore a career as a forensic scientist—a field he was introduced to through his experience in CTD’s Forensic Analysis course.

AMAYA is a fifth grader who has participated in Forensic Investigations; Space: The Science of Exoplanets, Our Solar System & the Universe; and Zoology: Animal Behavior and Biology. Her favorite CTD course has been Forensic Investigations. Reflecting on her time in class, Amaya says, “we were able to do a lot of fun activities like dissect an owl pellet and analyze bone samples of different animals. These are things I’d never thought I’d do or learn about as a fourth grader, and things I have never learned in school.” Currently a yellow belt in Karate, Amaya has a wide array of interests outside of CTD. She enjoys taking family vacations, volunteering her time at Feed My Starving Children, doing arts and crafts, and reading anything from horror to fantasy. Amaya hasn’t decided what she would like to do in the future but says, “maybe I’ll be a scientist or maybe I’ll be a writer—I’m not sure. But the classes make me want to learn more!”

As for the coming school year, Amaya is looking forward to being one of the oldest kids in school, so she can help all the younger students.
The following is a glimpse into the CTD curriculum, featuring just a few of our current or upcoming courses offered in-person and/or online. CTD offers hundreds of courses each year! You can search all courses by visiting CTD’s online EXPLORE COURSES TOOL at ctd.northwestern.edu/courses.

Deep Water Dive (Age 4)
What makes ocean creatures different from the animals that live on land? Young marine biologists dive into the wonderful underwater world to learn about animals and habitats from shallow waters to the deep sea. Through hands-on activities, dramatic play, and literature, students explore the ocean and make connections between their lives and the aquatic life on our planet. During this course, students will:
- Learn and record about sea creatures and the ocean they live in.
- Engage in dramatic play to explore how sea animals move through the water.
- Listen to and/or read literature about what life is like under the water.

Sample Courses

This course is something that I will remember for the rest of my life.

CTD STUDENT

Tangible Programming: Coding with your Hands (K-Grade 5)
How do you control a robot without written code? Students develop coding and spatial reasoning skills while using colorful, interactive block commands and hands-on tools. Gain practice with testing and debugging original programs while engaging with various robots like Primo Cubetto or Botley. Fundamental computer science concepts such as symbols and algorithms are explored through dramatic play, construction, engineering, and storytelling. During this course, students will:
- Compare and contrast how humans and computers operate, and the limitations of robots.
- Understand key computer science terms, such as sequence and algorithm.
- Develop skills and apply tools for representing code in different ways.

CTD PATHWAY: In this course, students develop key computational thinking and computer science background knowledge. They learn the importance of commands, sequencing, and logic in designing increasingly advanced programs. This introductory course builds foundational knowledge required for more advanced robotics, coding, and engineering courses.

Young Author’s Workshop (Grades 1-2)
How do great authors and storytellers hold the reader’s interest? Building authors develop original narratives and performances in this active class. By experience award-winning children’s literature, and analyzing images and videos of skilled storytellers and actors in action, students create their own unique works. Independent and collaborative exercises focus on dramatic play, creative writing, storytelling and performance. Join other aspiring young writers to produce original stories and share them for an audience using a writer’s workshop format to practice strengthening your writing through peer feedback. During this course, students will:
- Analyze and discuss setting, plot, and characterization in literature.
- Apply elements of the creative writing process to write an original fiction story.
- Employ storytelling techniques that authors use to bring their words to life in written and oral formats.
- Learn and practice skills needed to constructively offer and receive feedback with others about their writing through weekly writer’s workshops.

CTD PATHWAY: This course provides opportunities for playful exposure and hands-on learning. It builds foundational knowledge of key writing concepts and introduces students to the fundamental tools and language of writers,剧作家, and performers. Through hands-on activities, independent writing, and peer feedback, students create their own unique works. Independent and collaborative exercises focus on dramatic play, creative writing, storytelling and performance. Join other aspiring young writers to produce original stories and share them for an audience using a writer’s workshop format to practice strengthening your writing through peer feedback. During this course, students will:
- Develop an understanding of the importance of commands, sequencing, and logic in designing increasingly advanced programs.
- Analyze and discuss setting, plot, and characterization in literature.
- Build a budget and business plan for an original idea.
- Participate in a simulated business world where students develop and market their original product to their peers (investors and buyers).

Zoology: Animal Behavior & Biology (Grades 3-4)
How do behavioral traits help animals survive and thrive in their ecosystems? Learn about the unique adaptations that animals have to their environments. Uncover the many behaviors animals use to claim a territory, find food, avoid predators, find mates, and raise their young. Students engage in hands-on investigations, analysis data, and draw conclusions about their observations to learn more about the background of animal behavior. During this course, students will:
- Identify the principles and practices associated with ethology, or the study of animal behavior.
- Develop an understanding of instinct vs learned behavior.
- Generate questions, design and conduct scientific investigations, and formulate models.

Digital Architects (Grades 3-4)
How do architects use math, physics, and art to design buildings? Explore the architectural design process using math, physics, and visual-spatial reasoning skills. Through hands-on building projects, blueprint sketching, and digital modeling software such as SketchUp–Make® 3D, novice architects investigate how buildings come to be and how people interact with the built environment. Students experience how math and art come together as they design and create their own model buildings. During this course, students will:
- Explore how the design process influences the engineering process.
- Articulate how the architectural design of a building impacts the surrounding community.
- Compare and contrast digital and tangible tools for drawing renderings.

Critical Mathematics: From Googol to Infinity (Grades 3-5)
Examine the infinitely large and the incredibly small, and increase your understanding of ratio, integers, fractions, and exponents. Problem-based coursework, discourse and mathematical debate leads the learning in this course. Focusing on the Common Core Standards of Numbers & Operations and middle school goals of Ratios & Proportional Relationships and The Number System allows students to build their skills in these areas.

This course is for students who are ready to take their math to the next level. Incorporating both mathematic and entrepreneurial elements, students gain a foundation for future study of finance, economics, and business development.

Critical Mathematics: From Googol to Infinity (Grades 3-5)
Examine the infinitely large and the incredibly small, and increase your understanding of ratio, integers, fractions, and exponents. Problem-based coursework, discourse and mathematical debate leads the learning in this course. Focusing on the Common Core Standards of Numbers & Operations and middle school goals of Ratios & Proportional Relationships and The Number System allows students to build their skills in these areas.

This course is for students with an interest in learning how math helps us understand the world. The course prepares students for further study in middle school mathematics.

View all courses online at ctd.northwestern.edu/courses
Many CTD students apply to classes with specific goals in mind, and they finish their courses with detailed, thorough knowledge of a particular topic, becoming experts in chemistry, current events, or psychology in just a few weeks. Other lucky participants gain something greater: a way to engage with the world as lifelong learners. Eight-year-old Matthew Kim is one such CTD student. “Matthew learned to be curious,” shares his father, Myung Kim. Mr. Kim says Matthew has applied this skill to other areas of his life, from searching his local library for books on new and interesting topics to changing the way he observes his daily surroundings. “After he took the class about how to build bridges,” Mr. Kim explains, “he would look for bridges while we were driving.” Though only in third grade, Matthew has already expressed his curiosity by building a diverse CTD transcript. In the Weekend Enrichment Program (WEP) courses, he’s learned about game design, physics, engineering, and programming. As a Summer Program student, he’s developed his interests with classes in technology and biology, namely systems of the human body and the brain. Matthew has been able to use kid-friendly tools to explore these concepts, as some of his classes utilized WeDo robotics and LEGOs.

Matthew’s family shares in his desire to learn. His mother, Mrs. Hyung Kim, and his father join their son in visits to the public library near their home in the Northwest suburbs of Chicago, and the trio enjoys exploring the world with trips to new cities, visits to museums, and time spent in nature. When considering courses at CTD, they work with Matthew to help him cultivate his interests. “We like to choose the next CTD class together based on course description and recommendations from friends who took them previously,” Mr. Kim says. Though Matthew sometimes chooses options with similar overall themes as his previous CTD courses, Mr. Kim said he “always found that he learned something new,” advancing his knowledge of a particular subject. In addition to learning new material, Mr. Kim shares that he hoped Matthew would “learn a new way of thinking” at CTD, not only has Matthew developed an understanding of new topics, Mr. Kim says he’s observed the development of Matthew’s problem-solving abilities.

CTD has been a source of community for the entire Kim family. Mr. Kim explains that he first learned about CTD from a friend, and he’s gone on to recommend the experience to others. The Kims have met other families through WEP’s parent seminars, a free, weekly series available to parents in the Chicago area; recent seminars have included parent discussion groups, presentations on other CTD programs, and talks on educational and policy issues related to high-ability children. Mr. Kim found the seminars to be a “wonderful place to network and learn about various educational topics,” and he’s been pleased to count CTD staff as part of this widening circle of educators and like-minded contemporaries. “We met so many wonderful teachers,” Mr. Kim says, remarking on their “dedication” and “remarkable and caring” approach. The Kims have also benefited from watching their son’s non-academic world expand through CTD participation. “Matthew has met so many friends from the weekend program and summer programs,” says Mr. Kim. And in addition to a burgeoning sense of curiosity, Matthew has gained perspective that enriches his sense of possibility. “Among many aspects,” Mr. Kim says, “we would say that the best part of CTD was to teach Matthew how to think and how to daydream.”

Such development includes continuously challenging young learners like Matthew, and Mr. Kim suggests that other CTD parents urge their children to “try taking new topics” when selecting courses, even if the subject differs from their existing interests. Additionally, Mr. Kim urges prospective CTD students and parents to “continue enrolling in the program throughout the year.” Reflecting on advice for others and the importance of finding CTD programs—for Matthew and the Kim family—Mr. Kim says, “we feel very lucky.”
Grades 4-8 Sample Courses

The following is a glimpse into the CTD curriculum, featuring just a few of our current or upcoming courses offered in-person and/or online. CTD offers hundreds of courses each year! You can search all courses by visiting CTD’s online EXPLORE COURSES TOOL at ctd.northwestern.edu/courses.

Comparative Anatomy: The Animal Kingdom (Grades 5-6)
How does understanding and comparing anatomy help scientists determine the relationships between organisms? What is the shape of a squid’s brain, and how does it differ from other cephalopods? How does that shape impact a squid’s daily existence? In this hands-on lab course, young biologists dissect and compare a variety of animals of different species and taxonomic groups, from earthworms to mice. Discover the differences between endoskeletons and exoskeletons, organ systems both common and novel, and how anatomical adaptations are suited to an organism’s environment. After participating in this course, students will be able to:

- Identify the principles and practices associated with comparative anatomy, or the study of similarities and differences in the anatomy of different species.
- Develop an understanding of comparative anatomy, including evolutionary relationships, vestigial structures, different types of nervous systems, bilateral vs. radial symmetry, and more.
- Understand how comparative anatomy is important to scientists in determining relationships between organisms.

CTD PATHWAY: This laboratory-based course is for students with an interest in biology, scientific investigations, and dissection. It is great preparation for future study in biology, pre-medicine, and other lab sciences.

Outbreak: Immunology & Infectious Diseases (Grades 6-8)
How does the human body fight an infection? This hands-on course explores the human body and the different mechanisms that allow us to fight diseases and everyday pathogens. Investigate different infectious diseases, the history of deadly outbreaks across the globe, and the diseases scientists are fighting today. The class will focus on both historical and current events while we investigate what causes different diseases, the mechanisms behind how they spread, and how the human immune system works to keep us healthy.

During this course, students will:

- Explain how sound is produced and how it travels through a variety of mediums.
- Describe ways in which light can be absorbed, reflected, or refracted by objects.
- Identify the characteristics of sound, including frequency, pitch, volume, and echoes.

CTD PATHWAY: This course is for students with a passion for exploring optical illusions, the principles and characteristics of sound, and the effect that light has on objects. It is great preparation for future study in physics and design.

Making Waves: The Physics of Light & Sound (Grades 3-4)

We feel like CTD’s recommendations have been outstanding. They know our community, they know our teachers, they know our kids. CTD DISTRICT PARTNER

Grades 4-8 Sample Courses

Think Like a Mathematician (Grades 6-8)
In this course, students will explore a vast universe of ideas, because mathematics is the study of patterns. Mathematicians are not human calculators. They are observers who learn to see what the untrained eye does not notice. Students will encounter challenging problems about number, geometry, change, and infinity, and they will develop innovative solution strategies and debate them with others. During this course, students will:

- Comment geometric and algebraic representations of mathematical concepts.
- Persist in solving/investigating highly challenging, open-ended problems.
- Think precisely and communicate clearly about complex mathematical ideas.

CTD PATHWAY: This course is for students who love math and will extend students’ knowledge of middle school arithmetic while making profound connections to deep math concepts from high school and beyond.

Smart Sensors: Engineering & Design (Grades 7-8)
What makes a sensor “smart”? We have already heard about driverless cars that will be able to navigate freeways and stoplights without human interaction, but can you imagine smart buildings that can sense earthquake vibrations and change the stiffness of their walls to withstand tremors? In this hands-on engineering course, students explore how many of our modern sensors work and investigate smart sensor materials that respond to heat and pressure. Using their knowledge of these properties, students design a prototype counting device and invent a new smart sensor system of their own. Students will be able to:

- Recognize the variety and complexity of commercial sensors in everyday life, and identify ways in which sensors are able to detect changes in the environment and signal a response.
- Construct a molecular model of PZT piezoelectric polymer and describe the mechanism of how the piezoelectric film produces an electric signal in response to pressure or force.
- Create a human-centered, socially relevant, conceptual smart sensor solution to a social challenge.

CTD PATHWAY: This course is for students with a passion for socially responsible design, electronics, and/or smart devices. It is great preparation for future study in electronics, design, and engineering.

CTD Hybrid: In-person and Online Courses

Hybrid courses combine in-person instruction with an online academic environment. These “blended” courses offer the flexibility to complete a course—some for high school credit and/or service-learning hours—by meeting face-to-face in addition to engaging with online course work.

Our Hybrid courses allow students to participate in meaningful hands-on work and in-person activities while continuing to engage with the topic along with their instructors and classmates online.

For 2019-2020, CTD offers a variety of Hybrid courses:

- Stand-alone Hybrids, which consist of 9-week online courses with two weekends of in-person activities;
- Weekends Hybrids, which are credit-bearing, high school level honors courses that include several Saturday meet-ups over the year; and
- Our Civic Education Project Hybrid, which combines online study and research with a 3-day, in-person service-learning opportunity. Below are a few sample Hybrid courses:

- Pre-Med Honors (Hybrid)
- Algebra II Honors (Weekend Hybrid)
- Human Rights & Youth Advocacy (CEP Hybrid)

Please visit ctd.northwestern.edu/program/hybrid for more information on hybrid courses.

Community & Leadership: Be a Changemaker (Grades 7-8)
How do communities work together for change? Be part of a community with other inspiring young people, and explore Chicago to learn from local leaders and residents who are making change on critical issues their communities face. Develop leadership and teamwork skills by preparing and serving a meal to those in need or leading activities for neighborhood children. Learn what you can do to be a more active leader and advocate in your community and return home with a plan to make a difference! During this course, students will:

- Gain knowledge about social issues affecting communities in Chicago.
- Develop communication, interpersonal, and leadership skills.
- Discover the motivation to make change in their communities.

CTD PATHWAY: This course is for students who want to learn more about the issues facing their communities and develop leadership skills to be a Changemaker.

View all courses online at ctd.northwestern.edu/courses

CTD DISTRICT PARTNER

Center for Talent Development ctd.northwestern.edu
A Pre-Algebra teacher in CTD’s weekend program, DANNA DOTSON recognizes the importance of quality classroom instruction. She credits one of her own former teachers with encouraging her interest in the power of numbers and patterns. “I love the beauty of math!” Dotson shares. “I can directly tie this back to my high school physics teacher who made understanding and applying mathematical concepts something exciting and appealing.” She’s built on this experience throughout her career, igniting a new wave of math enthusiasts as a teacher at Chicago’s Whitney M. Young Magnet High School, then guiding future educators as a Teacher Education Coordinator for Northwestern’s School of Education and Social Policy.

Though she knew about CTD for years—even recommending its Summer Program to her middle school and high school math students—Dotson first began teaching CTD weekend classes in Evanston a year ago. In that time, she’s witnessed the ways CTD students and their families benefit from the programs: at one Expo event, Dotson recalls watching her students and their families discussing probability and playing games as they explored topics in math. “It was very heartwarming,” Dotson reflects.

Dotson’s adventurous spirit fuels her in and out of the classroom: an avid traveler, she’s crossed several destinations off her “bucket list of places to visit,” with a journey to Durban, South Africa on the horizon. And whether investigating algebra, geometry, data analysis, or an entirely new topic, she shares a powerful sense of curiosity with her CTD students each weekend. “The possibilities for exploring a wide variety of topics is an amazing part of participating in the CTD programs,” Dotson explains. “Whether you love math, science, technology or more, there is something for everyone.”

A committed social justice advocate and accomplished scholar, ASHLEY CURETON began her CTD experience as a Teaching Assistant for the Civic Education Project (CEP) 11 years ago. Since then, Cureton has worked for 18 CEP initiatives, mostly as a Facilitator for CivicWeek on topics like immigration and public health, as well as the Civic Leadership Institute. Her academic career has grown at-pace with her deepening involvement with CEP. When she applied for her first CEP position, Cureton was a graduating DePaul University senior. Today, she is a PhD candidate and lecturer at the University of Chicago, poised to undertake postdoctoral work at Johns Hopkins, where she will continue her research on refugee and immigrant youth. “It is my goal to improve the well being of vulnerable individuals and communities through value-driven scholarly and creative social work education, research, and professional leadership,” Cureton says of her plan for the future.

Cureton seeks to cultivate comparable values among her CEP students. “I hope CEP students feel inspired to become active, engaged citizens in their respective schools and local communities,” Cureton says. She notes the “extraordinary intellectual capabilities” of CEP participants, calling them “some of the most thoughtful, driven, and intelligent students that I’ve encountered.” She’s found a similar sense of shared purpose among the staff, and fondly recalls connecting with “equally passionate” colleagues during program trainings.

Outside of her studies and her work with CEP, Cureton enjoys global travel, spending time with her nieces and nephews, and baking desserts. Pressing social justice issues are never far from her mind, however. Cureton is a podcast enthusiast, and she recommends her students explore the Refugees’ Stories Podcast, Global Dispatches, and Status – Immigration & People. A prolific reader, her bookshelf includes such titles as Child Migration and Human Rights in a Global Age and Lives in Limbo: Undocumented and Coming of Age in America. And Cureton is bringing her globally conscious spirit to a new project, in which she’ll work to improve education and access to feminine products for refugee girls in Iraq. In her life as a researcher, an educator, and an advocate, Cureton is engaged with addressing powerful human rights issues, and she wants to see her students motivated as well: “I hope CEP students feel inspired to create change to make a positive impact on the world.”
This course is designed to give students the opportunity to read and respond to eight different pieces of literature. These responses will develop students' abilities to master the objectives of expository and analytical writing. Students will reflect on their work to fully understand and process a list of values related to the creation of the nation. All CTD Online Honors and Honors Elective courses are high school honors-level courses. Advanced middle school students seeking opportunities to accelerate academically are welcome. Please see ctd.northwestern.edu/eligibility for details. During this course, students will:

- Understand that close reading is a prerequisite for successful literary analysis.
- Explore universal themes by reading and reflecting upon major works of literature in the genres of fiction, poetry, essay, and drama.
- Expand their critical reading and writing skills through thoughtful analysis and written responses.

**CTD PATHWAY:** This class will prepare students for the Advanced Placement® Language and Composition course. Students will analyze, discuss, and reflect on their work to fully understand how to create essays that are well-organized in terms of time and space. These responses will develop students' abilities to master the objectives of expository and analytical writing. During this course, students will:

- Use a text-based programming language to create programs that analyze and process data related to social and economic changes.
- Research the impact computing and computer science has had on society, innovation, and the economy.
- Create a program that uses variables, decision-making, and iteration to process a list of values.

**CTD PATHWAY:** This college-level course was designed to focus on creativity, communication, and collaboration. While it prepares students to take the AP® Computer Science Principles exam, it is also an excellent CS course that does not require previous CS experience.

**Pre-Calculus Honors (Grades 6-12)**

This course covers advanced topics in functions and graphs, trigonometry, discrete mathematics, combinatorics, and pre-calculus. Students are actively engaged in problem-solving, reasoning, connecting, and communicating mathematically. All CTD Online Honors and Honors Elective courses are high school honors-level courses. Advanced middle school students seeking opportunities to accelerate academically are welcome. Please see ctd.northwestern.edu/eligibility for details. During this course, students will:

- Solve, manipulate, and graph linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions.
- Apply vectors, sequences, series, and matrices to mathematical problems.
- Use concepts from combinatorics and statistics to create mathematical models.

**CTD PATHWAY:** This course prepares students for Calculus and for standard exams such as the ACT® or SAT®, as well as future courses in mathematics.
Though his experiences at CTD led to wide-ranging academic pursuits and long-standing friendships, **Patrick Ryan** was initially hesitant about his first weekend course. "At first, no part of my seven-year-old self wanted to 'go to school on Saturdays,'" he shares, "but after taking a couple classes and realizing how fun they were, my opinion did a complete 180-degree turn." Now a junior majoring in political science at Northwestern University, Patrick recalls his time with CTD as collaborative, project-driven, and full of notably "interactive" classes. Through CTD, Patrick studied animals, pharaohs, immigration, global children’s literature, and architectural design, in addition to a host of scientific subjects. "They are a fantastic introduction to the more specialized topics that are covered in high school and especially college coursework," he says of his experience with CTD classes, "and they are taught in a way that is very fun and engaging for all students."

In Patrick’s most memorable course, he studied human biology. "I remember this class vividly because our final project involved creating a life-sized recreation of all the anatomical systems and how they interact with each other," Patrick shares. This favorite subject was one of many topics he would go on to explore: currently, Patrick is interested in learning about constitutional law, "I remember this class vividly because our final project involved creating a life-sized recreation of all the anatomical systems and how they interact with each other," Patrick shares. This favorite subject was one of many topics he would go on to explore: currently, Patrick is interested in learning about constitutional law. "I consider myself a classically trained musician, but I am also interested in the business aspects of music," he says. "I have always been fascinated by the intersection of music and technology." Patrick has played the trumpet for 12 years, and contributes to his own band, the Northwestern University Jazz Orchestra, and the orchestras of campus musicals.

The programs helped him grow personally as well as academically. The college student describes himself as "diligent, passionate, and hard working," and, though some of his CTD experiences are now distant memories, he recognizes their impact on his present-day character. "I can say with certainty that my CTD classes were very influential in instilling these values in me at a very early age," Patrick says, adding that the program helped him connect with others.

"One valuable thing that I learned through my CTD classes was the skill of interacting and collaborating with peers, which is perhaps the most important professional skill any person could have. I have very strong collaborative skills at this point in my life, and this skill was introduced to me while taking CTD classes."

One of those peers has turned out to be a lifelong connection. At 6 years old, Patrick met his best friend in his first CTD class. The two grew up together in the northwest suburbs of Chicago, attending elementary, middle, and high school together. Today, they are roommates at Northwestern.

Though his roommate is a familiar face, college has still provided Patrick with new opportunities to grow. He’s discovered an ability to thrive under pressure, cultivating valuable time-management skills. "At first, deadlines always scared and frustrated me," Patrick admits, "but as I continued taking classes and writing papers, it became easier and easier to write creatively in a short time frame."

He applies this same focus to life outside the classroom as a busy musician. Patrick has played the trumpet for 12 years, and contributes to his own band, the Northwestern University Jazz Orchestra, and the orchestras of campus musicals. Such an active schedule has motivated Patrick to be a more productive musician, "I am able to get pieces performance-ready in a creative way much faster than I ever could before," he shares.

In addition to coursework and music, Patrick fills his time with sports, travel, and exploring new ways to advance his career. The avid White Sox fan also enjoys basketball and playing golf with his family and friends, and hopes to cap his college graduation with a long European vacation. But this summer, Patrick will be staying close to home: the self-motivated learner will intern at a regional bank, gaining an introduction to corporate law and finding another way to build on his many varied interests.
Annual Family Event
Each summer, Center for Talent Development’s annual family event features stimulating workshops and presentations designed to help academically talented students and their parents plan for the future. Adults enjoy a keynote address and sessions led by experts in education for advanced learners. Students in grades 4 through 12 attend workshops, focusing on new perspectives in current areas of study as well as future career opportunities. Children age 4 through grade 3 are invited to participate in fun, supervised learning activities led by CTD’s summer staff.
For more information or to register, visit ctd.northwestern.edu/family-event.
Follow us on social media for updates on this conference and other family opportunities!

Service-Learning
CTD’s award-winning service-learning program, Civic Education Project (CEP), offers students opportunities to develop the knowledge, experience, and leadership skills they need to make a positive impact on the world. CEP’s CivicWeek program is held during Spring 2020 and Summer 2020. CEP’s Civic Leadership Institute is held during Summer 2020. To learn more about the Civic Education Project, visit ctd.northwestern.edu/cep.

Summer Programs
The Center for Talent Development (CTD) summer programs allow academically talented students to delve deep into a subject of interest, build upon their strengths, and connect with a community of peers. From fast-paced enrichment options to accelerated, credit-bearing offerings, there is something for students age 4 through grade 12. Residential and commuter programs provide challenging enrichment, honors, and Advanced Placement® courses taught in a highly supportive environment. From grade 3 students can take part in CTD’s Leapfrog program, which includes enrichment courses for young students who have demonstrated a keen, early interest in learning. Students in grades 4 through 12 have the opportunity to participate in a variety of residential and commuter programs throughout the summer.
Visit ctd.northwestern.edu/summer for more information. The summer program application opens on January 1.

Other Opportunities for CTD Students

CTD Backpack™
CTD Backpack is the center’s online community for academically talented students and their families. Members of CTD Backpack are able to engage with their peers and experts in the field of advanced education, access weekly content tailored to the needs of parents, and learn about upcoming opportunities. Students in CTD Backpack can collaborate with other fellow students, work on their online learning pathways, and earn digital badges through informal learning activities.
Note: Complimentary access to CTD Backpack is provided to families enrolled in a Center for Talent Development program, including NUMATS. For those not enrolled in a program, CTD Backpack is available through a paid membership.
For more information on CTD Backpack, visit ctd.northwestern.edu/ctd-backpack.
At the heart of our work, CTD values community engagement and collaboration. Staff reach beyond the walls of the classroom to connect with and serve their communities. These experiences inform and inspire the work we do inside the center.
Admission Requirements and Eligibility

CTD programs require submission of a completed application. A student may apply as a new applicant with qualifying test scores, returning applicant, or portfolio applicant. Except for Tadpole Academy, 4-year old courses, and the Online Family Program, all academic-year courses have eligibility requirements to ensure that courses provide students with an academic environment which is matched to their readiness to learn.

Before beginning an online application, determine which type of applicant your student is, the eligibility requirements for your student’s first-choice course, and any supporting documents required (e.g., test scores, educator recommendation, report card, etc.) Information on eligibility is available on our website at ctd.northwestern.edu/eligibility.

In general, for advanced enrichment courses, students should be achieving in the top 5-10% academically compared to grade-level peers as demonstrated by achievement test scores, grades, or other performance measures. To be eligible for accelerated, credit-bearing courses, students need to be able to demonstrate readiness for above-grade-level course work and/or a faster pace of learning. This readiness can be demonstrated through above-grade-level test scores (e.g., SAT® or ACT® taken in middle school through Northwestern University’s Midwest Academic Talent Search or similar program), grades, or a portfolio of student work.

For detailed eligibility information for each individual program and grade level, please visit ctd.northwestern.edu/eligibility.

Application Process

Online applications are available through the MyCTD portal found at my.ctd.northwestern.edu. Completed applications are reviewed as they are received. Courses are filled on a first-come, first-served basis. Although Center for Talent Development (CTD) tries to accommodate late applications, enrollment may not be possible. Please be sure to complete the application online, including all supporting materials, as applications are reviewed only after all supporting documents and information has been received. Incomplete applications are not reviewed nor do they reserve a seat in the desired course, regardless of whether or not payment is included.

Once an enrollment decision is made, the Admissions staff will notify the applicant via e-mail. The process takes approximately four weeks from the time a completed application is received.

Tuition and Fees

Center for Talent Development (CTD) tuition rates and fees vary by program, program length, course requirements, and application date. Tuition, dates, and locations can be found on pages 8-11 of this catalog. For detailed information about tuition, payments, refunds, and withdrawal policies, for each individual academic year program, please visit ctd.northwestern.edu/tuition.

Note: In the event CTD cancels a course in advance of a program start date, families will be contacted immediately, offered other course options, and will be provided a full refund if no available course options are feasible for the family.

Assessment Fees

Fees for assessments taken through CTD vary by test. Please see the website at ctd.northwestern.edu/tuition for details. For students taking the PSAT™ 8/9, SAT®, or ACT® through Northwestern University’s Midwest Academic Talent Search (NUMATS), the fee consists of two components: the test fee and the NUMATS fee.

The test fee is the charge for the test as determined by the testing agency. The NUMATS fee includes registration processing and covers access to all CTD and NUMATS community resources, including score reports and interpretive materials, programming recommendations, and CTD Backpack, which is our interactive online community for students and their families. Detailed NUMATS tuition and fee information is available at ctd.northwestern.edu/numats.

Financial Aid

Need-based financial aid is available for most academic programs. Applications are reviewed on a first-come, first-served basis. Families who wish to apply for financial aid must first complete a program application and then the appropriate Financial Aid Application through FACTS, our online system. All supporting materials must be included in the financial aid submission to the FACTS account in order for an application for financial aid to be considered complete. Incomplete applications are not reviewed. Requests for financial assistance typically exceed resources available, so families seeking aid are encouraged to apply early.

For more detailed information on financial aid opportunities, please visit ctd.northwestern.edu/financial-aid.

I was a student here for four years when I was a teenager. It’s now the place I go in the summer to work with these amazing, talented, energetic writers. I look forward to it all year long.

CTD INSTRUCTOR
For Educators

Advanced learners need enriched and accelerated instruction that requires educators who are knowledgeable about talent development and gifted education’s best practices. It also requires schools to provide a range of specialized services and implement strong policies and practices.

Center for Talent Development (CTD) supports educators and schools in meeting the needs of advanced learners in a variety of ways:

- Professional development
- Job opportunities
- Program reviews
- Supplemental programming

Professional Development

CTD’s professional development programs focus on practical and timely topics that help teachers and administrators identify and meet the needs of gifted students with an emphasis on equity and access. Professional development options include the following:

- Annual educator conference facilitated by experts in the field
- Customized workshops on topics including using assessment data effectively, increasing rigor in your curriculum, and best practices in identification
- Gifted Education Boot Camp, which provides an introduction to the most important knowledge, skills, and concepts in the field

To learn more about professional development opportunities, visit ctd.northwestern.edu/professional-development.

School Services

Schools have the opportunity to collaborate with CTD in ways that benefit both faculty and students. CTD’s School Services team members will help develop a package of tailored services that may include program reviews, professional development workshops, enrichment and acceleration programming for students, seminars for parents, policy writing support, or assessment tools and data analysis.

For more information, visit ctd.northwestern.edu/services.

Special Group Tuition Rates for Schools

Special group tuition rates are available to schools enrolling five or more students in online CTD courses. Email g8l@northwestern.edu for details.

Custom-Designed Service-Learning and Leadership Programs

CTD’s Civic Education Project (CEP) offers one-day to one-week customizable programs for schools, districts, and organizations that want to offer their students opportunities to engage in meaningful service, learn about pressing social issues, and develop skills for leadership and civic engagement. Additionally, CEP’s professional staff provide training for educators, youth development professionals, and other practitioners on service-learning, social justice education, and youth development. To learn more or to arrange a consultation, contact cep@northwestern.edu.

Job Opportunities

We believe that the best educators don’t just teach; they inspire young people to think big, take risks, and believe in themselves. These are the educators gifted students need, and these are the educators we hire. Working with CTD helps educators hone their craft and experience the rewards of working within a vibrant learning community that nurtures students and helps them develop their strengths.

A wide range of positions is available year-round. Visit CTD’s Job Openings page for more information and to apply.

New Gifted Education Boot Camp!

For those new to gifted education or looking for the latest research and practices, CTD has created Boot Camp to help classroom teachers and administrators develop the knowledge and skills they need to identify exceptional academic ability in young people, provide these advanced learners with appropriate services and instructional support, and help them achieve optimal growth. Contact CTD to register for an upcoming session or learn how to bring Boot Camp to your school.

Accreditation

Center for Talent Development (CTD) at Northwestern University has been accredited as a Nonpublic-Supplementary school by the North Central Association Commission on Accreditation and School Improvement (NCA CASI) since April 1, 1994. NCA CASI is recognized by the U.S. Department of Education and has more than 100 years of experience in improving educational quality. In 2006, AdvancEd assumed oversight of the accreditation process and now manages the external review and continuous improvement reporting process. CTD’s online program is approved by the National Collegiate Athletic Association (NCAA), which enables student athletes to participate in online courses and earn high school credit. Accreditation not only means CTD adheres to high quality standards, it also means CTD can offer academic credit for high school courses taken online, and in CTD’s summer programs. To learn more about CTD’s accreditation and what accreditation means, visit ctd.northwestern.edu/accreditation.

Policies and Disclaimers

Students associated with Center for Talent Development are held to all responsibilities of members of the Northwestern University community. Northwestern University and Center for Talent Development reserve the right to change without notice any statement in this brochure concerning, but not limited to, rules, policies, tuition, fees, courses, and faculty.

Northwestern University does not discriminate or permit discrimination by any member of its community against any individual on the basis of race, color, religion, national origin, sex, pregnancy, sexual orientation, gender identity, gender expression, parental status, marital status, age, disability, citizenship status, veteran status, genetic information or any other classification protected by law in matters of admissions, employment, housing, services, or in the educational programs or activities it operates. Read the full Non-discrimination Statement online at https://www.northwestern.edu/central-opportunity-access/policies/non-discrimination-statement.html.

Program participants will receive notifications of other programs and services provided by CTD. We hope you enjoy hearing about other opportunities. If you do not wish to receive e-mail messages promoting programs or services from CTD, contact us at ctd@northwestern.edu to request that your name be removed from our e-mail lists.

For more information on policies, visit ctd.northwestern.edu/policies.
She had a fabulous time and learned a huge amount about a variety of science topics clustered around a creative theme. It was as though the course had been written for her.

CTD PARENT

This program has been a game changer for our daughter. It has helped with self-esteem and is a way for her to be challenged without the anxiety of grades or test results.

CTD PARENT

I fit in with people who cared about their academic experience as much as I did. This was a new feeling...it was an amazing experience that definitely changed me.

CTD STUDENT

She had a fabulous time and learned a huge amount about a variety of science topics clustered around a creative theme. It was as though the course had been written for her.

CTD STUDENT

One of the aims of our program is to give students freedom, to give them independence of thought—to enable them to be critical thinkers where they can say ‘These are the types of things I’m interested in. These are the types of questions I want to ask.’

CTD INSTRUCTOR

We were encouraged to collaborate and problem solve...we weren’t just meant to absorb information and memorize it for tests; we were using information to make projects.

CTD STUDENT

We were encouraged to collaborate and problem solve...we weren’t just meant to absorb information and memorize it for tests; we were using information to make projects.

CTD STUDENT
The teachers, course content, and exposure to other students was rich beyond measure.  

CTD PARENT