

Preparing Tomorrow's Workforce

The Global Learning Imperative for Career and Technical Education Programs at Community and Technical Colleges



 **Asia Society** | Center for Global Education

 AMERICAN ASSOCIATION OF COMMUNITY COLLEGES

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State Leaders Connecting Learning to Work

LONGVIEW FOUNDATION

The Center for Global Education at Asia Society produced this report in partnership with Advance CTE, Association for Career and Technical Education, American Association of Community Colleges, and Longview Foundation for World Affairs and International Understanding.

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About

The Center for Global Education at Asia Society partners with education leaders and institutions from the United States, Asia, and around the world to tackle one of the most critical education challenges today: how to educate all students for employability and citizenship in a global era. Our mission is to develop global competence in students and educators as the foundation for understanding between people in the Asia-Pacific region and throughout the world. We accomplish this by working with educators, school districts, and community programs to ensure students have the necessary tools and support for our shared global future. For more information, visit AsiaSociety.org/Education.

Advance CTE was established in 1920 to represent the state and territory heads of secondary, postsecondary, and adult career and technical education (CTE) across the nation. Its mission is to support visionary state leadership, cultivate best practices, and speak with a collective voice to advance high-quality CTE policies, programs, and pathways that ensure career success for each learner.

The **Association for Career and Technical Education** (ACTE) is the largest national education association dedicated to the advancement of education that prepares youth and adults for careers. It's our mission to provide educational leadership in developing a competitive workforce.

The **American Association of Community Colleges** (AACC) is the premiere advocacy organization for the nation's community colleges, the largest and most diverse sector of U.S. higher education. Its mission is "Building a Nation of Learners by Advancing America's Community Colleges."

The **Longview Foundation** seeks to build a more peaceful, just, and sustainable world by equipping youth with a global perspective and understanding of political, social, and environmental issues worldwide.

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Global Competence Is Part of Preparing Workers for Careers

The jobs of tomorrow will require a vastly different skill set from the jobs of today within an increasingly diverse and complex world. As automation and technological advances change the nature of work, and as global diversity and economic growth change the characteristics of the employee and consumer base, the skills of global competence will be in greater demand. Across the United States and internationally, economic and education organizations, together with employers, are calling for employees with these skills.

Global competence is vital for career readiness. Economic and education organizations concur that global competence is needed to prepare current and future employees for the future of work. The World Economic Forum recommends that developing global citizenship values should be an integral component in a “future-ready” curricula (World Economic Forum, 2017). Concurrently, the National Association of Colleges and Employers (NACE Center for Career Development and Talent Acquisition, 2019) lists cultural fluency as one of eight career-ready competencies, and Forbes contributor Bernard Marr lists diversity and cultural intelligence as a top 10 vital skill for future work (Marr, 2019). A study from Deloitte and the Global Business Coalition for Education lists cultural awareness as an employability skill people will need to succeed in the future workplace (Deloitte & Global Business Coalition for Education, 2018).

Defining Global Competence

Together, Asia Society and the Council of Chief State School Officers developed the following four domains of global competence (Mansilla & Jackson, 2011), which were later adopted by the U.S. Department of Education (U.S. Department of Education, 2012):

Investigate the World. Global competence starts by being interested in learning about the world and how it works. Students ask and explore questions that are globally significant. They can respond to these questions by identifying, collecting, and analyzing credible information from a variety of local, national, and international sources, including those in multiple languages. They can connect the local to the global.

Weigh Perspectives. Globally competent students recognize that they have a particular perspective, and that others may or may not share it. When needed, they can compare and contrast their perspective with others, and integrate various viewpoints to construct a new one.

Communicate Ideas. Globally competent students understand that audiences differ on the basis of culture, geography, faith, ideology, wealth, and other factors. They can effectively communicate, verbally and nonverbally, with wide-ranging audiences and collaborate on diverse teams. Because it is increasingly the world's common language for commerce and communication, globally competent students are proficient in English as well as in at least one other world language. They are technology and media literate within a global communications environment.

Take Action. Globally competent students see themselves as capable of making a difference. Alone or with others, ethically and creatively, globally competent students can envision and weigh options for action based on evidence and insight; they can assess their potential impact, taking into account varied perspectives and potential consequences for others; and they show courage to act and reflect on their actions.

For more on Career Ready Practices with a Global Perspective, see Appendix. For examples of how community colleges can integrate global competence into their programs, see the examples throughout this paper.

Employers seek applicants with global competence.

Employer surveys indicate that companies seek employees with global competence. For example, a 2015 survey of 400 U.S. executives in the private and nonprofit sectors prepared for the Association of American Colleges and Universities found that 96 percent of employers agreed that students need to be able to solve problems with people with different views from their own, and 78 percent agreed that students need intercultural skills and understanding of societies and countries outside the United States as a condition for career readiness (Hart Research Associates, 2015). In a 2014 survey of more than 2,100 U.S. employers, 93 percent of respondents reported that they valued employees who were able to work effectively with customers, clients, and businesses from a range of different countries and cultures (Damari et al., 2017).

Further, companies across the globe are placing more emphasis on employability skills in general as key to future job security, as automation is less likely to be able to replicate these skills compared with technical and physical tasks. A global survey from PwC Research finds that 91 percent of CEOs agree soft skill development is just as important as technical skill development in their employees (PwC, 2018). Key skills identified as important to future work include: leadership, communication, collaboration, critical thinking, creativity, and emotional intelligence (Charlton, 2019; World Economic Forum, 2016; Marr, 2019; Hart Research Associates, 2015).

Several of these key skills are inextricably linked to global competence, as they require social skills and understanding of the needs and perspectives of others regardless of age, gender, race, religion, and sexual orientation—all skills aligned to Asia Society's four domains of global competence (see box). For example, a study from Columbia University ties cultural competency to creativity (Lu et al., 2017). Study findings show that students with close intercultural relationships among peers deepen their cultural learning, which, in turn, leads them to think from different perspectives and understand diverse viewpoints, allowing creative thinking to flourish. Findings from multiple other studies also show that the ability to collaborate and work on diverse teams is critical to innovation and smarter decision making (Rock & Grant, 2016).

Lone Star College: Globalizing Learning Through Faculty Professional Development

Lone Star College (LSC) in the greater Houston metropolitan area—one of the largest community colleges in the nation—is fully committed to an internationally focused education. Beginning in 2005, LSC created the Faculty International Exploration (FIE) Award to globalize its campuses through offering intensive global education and training to faculty. After completing a rigorous application process, award recipients travel abroad and do research or gather information and materials to help them globalize their courses or develop study abroad programs. FIE faculty also share their work with colleagues on campus and at conferences as a requirement of the program (American Association of Community Colleges, 2016).

- 2016–17 award recipient, Tony Fuller, planned a project to identify and explore appropriate and successful best international business practices and etiquette in three major, business-centered cities across India. The study would allow the school's Business Speech courses to obtain International Studies Designation by restructuring the courses to emphasize international elements in Business Speech and help students understand current best business practices and etiquette in India (Lone Star College, 2019).
- 2015–16 award recipient, Valerie Jefferson, planned a project to globalize a first-year general education course for students by partnering with GoEco, LSC-Jakarta, and Jakarta community partners to develop a specialized course that focuses on knowledge of self, diversity, college connectedness, service learning, and career exploration in the global marketplace. Students will have the opportunity to be introduced to teaching through exposure to schools in Texas, Thailand, and Indonesia (Lone Star College, 2019).

The Changing Skills Needed for Successful Graduates

Given the role that community and technical colleges play in preparing millions of learners for participation in the global economy, institutional leaders and faculty must prepare their CTE program graduates for the future of work as the United States grows more diverse and as work tasks rely more heavily on employability skills. Global competence is and will continue to be a valuable skill set across all industries.

Community and technical colleges will need to prepare all students to be able to participate in an increasingly diverse workforce. Non-Hispanic whites now make up less than half of the U.S. population under the age of 15, according to 2018 U.S. Census Bureau estimates (United States Census Bureau, 2019b; Frey, 2019). 2019 U.S. Census Bureau estimates show that 13.7 percent of the U.S. population is foreign born (United States Census Bureau, 2019a), up from 11.1 percent in 2000 (Malone, Baluja, Costanzo, & Davis, 2003). Almost every country in the world is represented by the 44 million immigrants living in the United States today (Radford, 2019). These demographic changes mean that the world is diversifying within our own backyards and will only continue to do so as the majority-white population ages and increasingly diverse generations take their place. The skills of global competence will be needed to facilitate weighing perspectives and communicating ideas effectively among diverse populations at home and at work. Already, the populations of community and technical college students reflect this diversity.

Community and technical colleges will need to continue to prepare all students for the changing nature of work that is becoming more reliant on employability skills. The nature of work and the skills required to complete work activities are undergoing rapid change (Manyika et al., 2017; Lobaugh, Stephens, & Simpson, 2019). According to the World Economic Forum, automation, artificial intelligence, robotics, and other technological advances are transforming the activities that make up a majority of the jobs in the current workforce (World Economic Forum, 2018). The McKinsey & Company research organization, McKinsey Global Institute (MGI), finds that about 60 percent of current jobs include about one-third of work activities that can be automated by 2030 (Manyika et al., 2017).

However, reports exploring the possibilities of what future work will look like propose that technology will likely not displace the majority of workers (Manyika et al., 2017), but will change the activities that make up the work that they do (Pring et al., 2018), and consequently, the skills needed to complete these tasks. Technological advances will not eliminate jobs; rather, they will automate routine and physical tasks and require a greater reliance on employability skills that cannot be as easily written into a computer program, such as critical thinking, empathy, problem solving, and managing and motivating people. As such, cultural competencies will be critical in the evolving workforce to create a more understanding and inclusive society. For example, Cognizant, one of the world's leading professional services companies, proposes that hypothetical future work could include jobs that will require some degree of cultural intelligence/fluency as well as technical proficiency, such as machine personality designer and algorithm bias auditor (Pring et al., 2018).

Further, consumers are changing, forcing companies to be more responsive to the cultural factors that influence shopping preferences. *Deloitte Insights* finds that 30 percent of U.S. consumers are millennial—44 percent of whom are nonwhite, compared with only 25 percent of baby boomers classified as nonwhite (Lobaugh, Stephens, & Simpson, 2019). The diversity of the U.S. consumer base will continue to grow as younger, more diverse generations age into adulthood. *Deloitte Insights* finds that these younger consumers exhibit shopping and consumption preferences based on cultural experiences, economic constraints, and an increasing array of choices that differ greatly from the past. Companies need to have an understanding of these cultural differences to tailor products and services developed for new generations of more diverse consumers.

Community and Technical College CTE Programs Play a Key Role in Helping Workers Build the Skills of Global Competence Needed for Success

Community and technical colleges already play an integral role in preparing large sectors of the workforce. In particular, CTE programs at these institutions prepare and retrain current and future workers for careers in high-demand industries that will continue to grow and that require globally competent employees. Incorporating global learning into the curriculum of community and technical college CTE programs is a necessary step to augmenting students' skills and equipping them to be more advantageous recruits and lifelong learners in the marketplace.

Community and technical colleges reach an important large and diverse pool of current and future workers.

Community and technical colleges currently educate 41 percent of all students in higher education, totaling approximately 7 million credit-seeking undergraduates and 12 million students total (American Association of Community Colleges, 2019). These institutions serve a diverse population: Approximately half are over age 22 (54 percent), and 9 percent are non-U.S. citizens (American Association of Community Colleges, 2019). Also, 55 percent of low-income students and approximately half of black and Hispanic students in higher education begin their higher education careers at community colleges (Community College Research Center, 2019). Further, many have work and family obligations. Sixty percent of community and technical college students work full or part time, and 15 percent are single parents (American Association of Community Colleges, 2019). Community and technical colleges also have a wide geographical reach with 60 percent of campuses located in rural areas (American Association of Community Colleges, 2017).

The community and technical college CTE landscape is adapting to meet the demands of future work. CTE programs within community and technical colleges afford a clear opportunity to provide a global perspective and approach that favors real-world application and problem-based inquiry. Research shows that the CTE landscape is changing to meet the demand to prepare workers for twenty-first-century careers that increase earnings for program completers and are projected to see strong job growth over the next decade.

National and international education and economic organizations such as the National School Boards Association and the World Economic Forum are calling for policy agendas that include raising the status of CTE programs and changing the education landscape to prepare students to be career ready as well as college ready by focusing equal attention on skills alongside academic outcomes (National School Boards Association, 2019; World Economic Forum, 2017). In recent years, secondary and postsecondary CTE programs have raised the bar and improved the quality of their curriculum in response to industry demands, shifting the perceptions of these programs away from that of tracking low-performing students into less rigorous programs of study and low-skill labor (Knowles, 2015).

Community and Technical College CTE Programs at-a-Glance

Career and technical education (formerly known as vocational education) consists of programs of study directly aligned with employment and industry needs. Data from the National Center for Education Statistics at the Institute of Education Sciences finds that subbaccalaureate occupational education—that is, associate degrees and postsecondary certificates below the bachelor's level in CTE fields of study—accounts for 74 percent of subbaccalaureate education, with two-year public institutions being the largest supplier of such degrees (65 percent). In fact, one out of every four undergraduates in the United States is enrolled in a subbaccalaureate occupational education program at a two-year public institution—or community college CTE program—and the pace of growth in two-year public institutions outpaces enrollment in four-year institutions. Projections indicate that the trend of demand for two-year degree programs is expected to continue to outpace growth in four-year institutions until at least 2026–27 (Zhang & Oymak, 2018).

Today, high-quality secondary and postsecondary CTE programs combine skills-based education with academic rigor, project-based learning, and career pathway and apprenticeship programs that prepare students for twenty-first-century careers. Policy and resources are increasingly providing support to CTE programs as they transition to meet employer demands. In 2018, Congress approved the 2019 fiscal year appropriations bill that increased investment in secondary and postsecondary CTE programs at public two-year institutions by \$70 million. In 2018, the Association for Career and Technical Education (ACTE) released the High Quality CTE Framework, a project of the High Quality CTE Initiative (Imperatore & Hyslop, 2018). The framework is a comprehensive, research-based tool comprising 12 elements and 92 criteria designed to be used by secondary and postsecondary institutions for self-evaluation, program improvement, and collaboration.

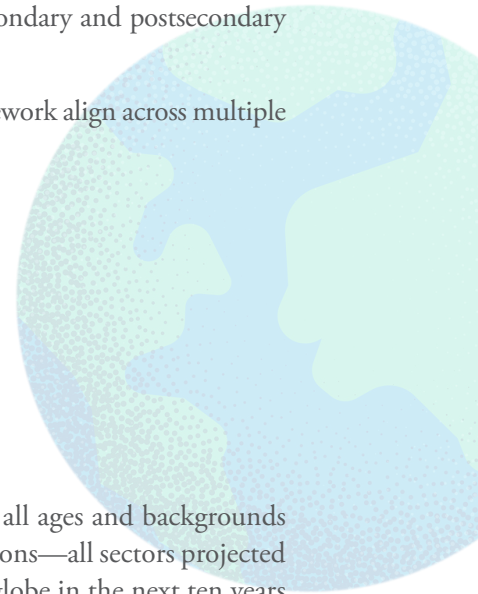
Asia Society's four pillars of global competence and the ACTE High Quality CTE Framework align across multiple elements, including:

- Delivering engaging instruction
- Providing access and equity
- Delivering standards-aligned content
- Assessing student mastery of knowledge and skills
- Preparing staff through ongoing, rigorous professional development
- Offering student career development opportunities

Postsecondary CTE programs provide lifelong education and training to students of all ages and backgrounds that is needed to fill jobs in business, finance, technology, media, and telecommunications—all sectors projected to see significant talent shortages in developed and developing economies across the globe in the next ten years (Korn Ferry, 2018). Also, many CTE career pathways—that is, career fields within the National Career Cluster Framework developed by Advance CTE (2017)—are projected to see strong job growth over the next decade. MGI estimates that, globally, health care and other jobs related to the aging population could grow by 50 million to 85 million by 2030; IT service jobs could grow by 20–50 million; and up to 80 million jobs could be created in architecture and construction (Manyika et al., 2017).

The large reach of community and technical colleges and their CTE programs means that the workforce training they provide is crucial to the American economy as they prepare diverse and underserved populations who will fill key roles in the workforce. To enhance the preparation and competitiveness of their graduates, community and technical colleges must transform and include a global education component within CTE programs to keep up with economic and employment changes. Community and technical colleges have an imperative to ensure that all students have the future-ready skills to compete for and retain gainful employment and learn the valuable skills that will ensure they can adapt to the evolving nature of work in an increasingly automated world, able to perform the jobs of the future in culturally diverse communities.

Further, after years of employers increasingly seeking job candidates with four-year degrees as a requirement for employment, following the Great Recession of 2007–2009 trends indicate movement back toward a more even playing field for associate-degree-holding job candidates. Reports show that a growing number of employers, including Apple, Google, Bank of America, and IBM (Connley, 2018), are beginning to strip the four-year-degree requirement from job descriptions in a variety of fields such as sales associate and engineer (Lanahan, 2019), thereby further enhancing the opportunities available to associate-degree graduates.



What Community and Technical Colleges Can Do to Enhance the Implementation of Global Learning in CTE Programs

Community and technical colleges have a history of collaborating with government agencies to establish connections to employers that attract foreign business. As business industry partners, community and technical colleges can be responsive to emerging economic drivers. As such, community and technical colleges have already been gradually integrating global perspectives in response to workforce demands. However, current internationalization efforts mainly exist in broad commitments and plans with some integration into curriculum and faculty professional development primarily among liberal arts and general education programs of study. This section offers examples of ways in which community and technical colleges have begun to develop and deliver intentional, comprehensive global learning opportunities that can be adapted to CTE programs.

Community and technical colleges are increasingly internationalizing in response to employer demands. Many community and technical colleges are hearing the need for global competence as a necessary workforce skill and are increasingly responding to employer needs as a result. Studies show that more and more community college programs are beginning to internationalize their campuses and are incorporating international, global, or intercultural components into course content, pedagogy, resources, and assessments.

A 2017 report from the American Council on Education, which has been tracking trends in the internationalization of higher education for almost two decades, shows that colleges and universities are increasingly prioritizing global education by having an international focus in their mission statements, strategic plans, program activities, classroom curricula, and faculty professional development. However, internationalization of classroom curricula and professional development remains a lesser priority, especially in CTE programs, compared with establishing institutional commitments, recruitment of international students, and establishment of study abroad programs. The study shows that associate-degree programs are experiencing the greatest increases in internationalization since 2011 across all measured areas compared with baccalaureate and graduate programs—though levels of internationalization generally remain lower overall (Helms, Brajkovic, & Struthers, 2017). Similarly, a study from Michigan State University that tracks the internationalization of business programs finds that, according to self-reporting from community college leaders, community colleges across the United States have internationalized 11 percent of their programs in 2019, up from 7.1 percent five years ago. Community college leaders project that between 17.6 and 24.1 percent of their programs will be internationalized in the next five and ten years, respectively (IBEX, 2019).

Nevertheless, because the content of liberal arts programs such as History, Biology, and English Composition often already naturally contains global elements, these programs are typically the first targets at the beginning of a comprehensive campus-wide effort to intentionally internationalize. Yet, global learning can also be infused into any CTE course content as a means of teaching students problem-solving skills, creative thinking, and emotional intelligence—among other vital twenty-first-century employability and technical skills. Organizations such as the Center for Global Education at Asia Society, the American Council on Education, and the Association for Supervision and Curriculum Development are embracing a global mission and providing curricula, tools, and

Internationalizing Across an Institution

The American Council on Education defines comprehensive internationalization as comprising the following six components:

- Articulated institutional commitment
- Administrative leadership, structure, and staffing
- Curriculum, co-curriculum, and learning outcomes
- Faculty policies and practices
- Student mobility
- Collaboration and partnerships with institutions in other countries (Helms, Brajkovic, & Struthers, 2017)

professional development to assist K-12 and postsecondary educators with integrating global competence into any classroom. Whether it's studying the origins of infectious diseases in Biology, developing business plans for a multinational organization in International Business courses, or collaborating with students in other countries online to discuss the effects of climate change on their communities in Environmental Science or Agriculture, global education brings real-world problems to light and engages students in student-led learning where they can invest themselves in finding solutions to complex global challenges.

A study from the Association of American Colleges and Universities (AACU) finds that a comprehensive global learning curriculum is needed for colleges and universities to adequately prepare graduates for the future workforce. AACU study authors report that global learning can take on various forms within higher education institutions depending on how it is introduced and spread (Nair & Henning, 2017). However, one thing remains clear: global learning is more than a stand-alone experience, such as a foreign language course or study abroad opportunity. It is also not its own program of study available only to a select few students. Rather, study authors explain that, as a distinct learning experience with several possible implementation variations across an institution, a well-implemented global learning curriculum must be comprehensive and deliberately planned, and accessible to all students.

Global learning has begun to develop as a unique feature of American education similar to the way general education emerged in the 1920s and 1930s as a curricular paradigm for education for democracy. —Nair and Henning, 2017, p. 1

For example, institutions such as Ivy Tech Community College of Indiana have developed global learning certificate programs that ensure students who earn the certificate participate in a variety of globally focused classes, events, and experiences that meet criteria aligned with a set of global education outcomes (see box). UNC World View at the University of North Carolina at Chapel Hill has developed the Global Distinction Program across 22 North Carolina community college campuses (see box). The program includes participation in a range of globally focused courses, activities, and dialogues, and rich professional development for faculty. These programs are among a growing number of globally focused, comprehensive credentials that community and technical colleges are offering to boost the skills and employment opportunities of their graduates.

At the classroom level, faculty can internationalize their classrooms by integrating global issues and perspectives into existing content.

Internationalizing a community college course. In Michael Ripoll's fire service courses at the Central Piedmont Community College in Charlotte, North Carolina, students are asked to explore global perspectives on various course topics. Using critical thinking and analytical skills, students are required to write a research paper on fire protection policies and procedures in other countries and compare and contrast them with those in their own community. In Introduction to Fire Prevention, students are asked to compare and contrast experiences of female firefighters in a global city with local experiences. In Principles of Fire Prevention, students compare and contrast policies and practices to encourage and improve fire prevention. In Building Construction, students compare and contrast fire prevention codes worldwide.

Many of Mr. Ripoll's students are career firefighters who interact with citizens from various cultures during emergency responses. Concurrently, Mr. Ripoll sees that the Charlotte Fire Department is becoming a more diverse workforce. He believes that first responders knowing and understanding various cultures and beliefs of coworkers will help promote a cohesive workforce in a profession where teamwork is necessary for the safety of everyone. Mr. Ripoll reported that he was interested in adding a global perspective to his classes because he believes it is important for firefighters to have an understanding of the various cultures within their work communities and among coworkers in order to build fire station morale and trust with the local community of career firefighters.

One example of a student assignment is a research paper concerned with the globalized perspective on women in the fire service. Since more women are joining the fire service in the United States, Mr. Ripoll wants his students to discover and learn how other cultures view women in the fire service, and compare this to the students' perspectives influenced by perceptions in the United States. In one example of a recently completed assignment, a student wrote about female firefighters in Iran operating their own female fire unit because they are not permitted to work on fire units with men. The student documented the struggles and perceptions of the female unit and the cultural issues that arise when they respond to emergencies.

Mr. Ripoll wants his students to know that their way of thinking is not the only way, or the only correct way, to view the world. There are other opinions that should be embraced and respected. Every student in the fire service that completes his courses can take what they have learned and immediately apply it to their trade. Each student making a small, positive impact by displaying their understanding for other people's views will collectively make a large positive impact within their communities. Mr. Ripoll reports that students are highly engaged in the global assignments and that they produce some of their best work on them.

Internationalization of a Course

Any course or form of teaching and learning can be internationalized by:

- Revealing how the discipline is taught differently across the world
- Showing how the field/profession is impacted by global issues
- Problem-solving global and international challenges
- Integrating international content
- Turning the class into an international learning community with multiple perspectives, with international voices, with global resources
- Emphasizing the complementarity of global learning outcomes with professional or disciplinary goals (Kahn, 2015)

Conclusion

Global competence is chief among the skills needed for a career-ready education that employers recognize and value in the workplace and that reflects the realities of an increasingly diverse workforce and global marketplace. Community and technical college leaders are beginning to respond to the demands of the workforce of the future by beginning to internationalize course offerings and campus opportunities. However, a majority of these course offerings and programs exist in general education and liberal arts programs of study where CTE degree-seeking students are less likely to have access to global experiences. Therefore, community and technical college administrators and faculty can and should work to increase access to global learning within CTE programs.

CTE programs need access to global learning to enhance the future-ready skills of their graduates. And since CTE programs align well with the global education mission, as they provide a natural platform for real-world application of academic skills directly tied to employment, they are easily adaptable to the inclusion of global competence in the curricula.

Creating community and technical college CTE programs that offer opportunities for students to gain the skills of global competence will generate highly sought-after graduates to fill key jobs in sectors with a strong potential for growth in the next decade. These graduates will accrue the skills necessary to adapt to increasingly diverse demographic shifts, boost the U.S. economy, and solve problems of global significance. Ultimately, global education and CTE programs seek to meet the same objective: to prepare students for the emerging global workforce.



UNC
WORLD VIEW

UNC World View at the University of North Carolina at Chapel Hill is committed to outreach in global education. UNC World View's North Carolina Global Distinction Program mobilizes the resources of UNC at Chapel Hill to collaborate with community colleges across the state in service of creating truly global campuses. It is fast becoming recognized as a national model for university–community college cooperation in global learning. Students from NC Global Distinction Campuses who complete program requirements receive a “Graduated with Global Distinction” notation on their transcripts, signaling their achievement to prospective employers and four-year institutions. Presently, UNC World View partners with more than 22 community college campuses across the state committed to developing and offering global distinction courses and activities.

UNC World View and pan-university departments—including five U.S. Department of Education–funded area studies programs, called National Resource Centers, and UNC libraries—provide support and access to knowledge, networks, and grant funding needed to develop course offerings and support students' global education.

Community college students who attend NC Global Distinction Colleges can earn a “Graduated with Global Distinction” notation on their transcripts by fulfilling the following requirements:

- Completing 15 hours of globally intensive courses
- Participating in eight international activities and dialogues
- Gaining 30 hours of global distinction and a study abroad or domestic intercultural experience
- Completing a capstone presentation related to their two-year global learning experience

The North Carolina Global Distinction Program includes the following supports:

Globally Intensive Courses. UNC World View offers course development grants and coordinates university research visits for community college research teams and individual instructors to create models that infuse global connections, context, and content into courses they teach.

International Activities and Dialogues. UNC World View and its partners help colleges identify speakers, films, webinars, webcasts, and other activities and resources that educate and inspire faculty and students about global regions and issues.

Faculty Professional Development. UNC World View offers year-round professional development in global education, including a fall symposium, regional workshops, global study visits, and a Global Education Leaders Program that help educators broaden their global perspective and develop strategies and action plans for globalizing their classrooms and campuses. In addition, a UNC World View Global Is Local Initiative creates an opportunity for community college faculty and administrators to visit local businesses that are active in the global marketplace.

Working together in a true spirit of collaboration, UNC World View and North Carolina community colleges, with support from industry, equip community college educators with global knowledge, best practices, and resources to prepare students to engage in our interconnected and diverse world.

The Ivy Tech Community College of Indiana: Internationalizing the Curriculum

Developing a Global Studies Certificate Program

As part of the Global Learning Across Indiana initiative, a three-year project to internationalize the Ivy Tech Community College of Indiana curriculum, Ivy Tech partnered with the Center for the Study of Global Change at Indiana University (IU) through a U.S. Department of Education Title VI grant, the Undergraduate International Studies and Foreign Language (UISFL) program. This partnership aligned with Ivy Tech's recently adopted Strategic Plan objective to strengthen cultural diversity, global awareness, and international competitiveness among faculty, staff, and students. The grant proposal focused on internationalizing the community college's curriculum as part of an effort to introduce a less-frequently-taught language, which is the primary intent of the grant.

First, leaders identified faculty and staff to lead the Global Learning Project. Project leaders then began discussing requirements for the Global Studies Certificate, developing specific global learning outcome goals to guide redesign of the Course Outline of Records (CORs) for each course, and development of the new foreign language course—Arabic.

Next, Global Learning Project leaders identified faculty with an interest in internationalizing their courses and identified courses commonly taught across campuses (e.g., English Composition, Psychology, Introduction to Business) that would be a good fit with the Global Studies Certificate program. Once the courses were identified, faculty members were provided access to an online training module with instruction on how to develop a curriculum aligned to the global learning outcomes approved by the curriculum committee composed of representatives from the 18 Ivy Tech campuses statewide. Faculty members teaching similar courses worked as a group to redesign the courses. IU led professional development activities, and a coordinator was hired to help facilitate. Participating faculty met twice every semester and during summer over the three years of the initiative to develop their courses, review their progress, and get feedback.

Program Requirements for the Global Studies Certificate

- Attendance at an orientation session to discuss the benefits and requirements of the certificate
- Completion of 15 credits of global-module courses across a minimum of three disciplines from a selection of more than 70 approved internationalized courses
- Development of a global résumé outlining global experiences and providing letters of reference
- Completion of an international project, research, competition, community service, service learning, or travel study experience
- Participation in a global, cultural, or diversity related activity, which may include attending conferences/workshops, completion of the U.S. Institute of Peace Certification, or becoming a member of a professional or community group

Expanding the Global Learning Initiative

The Global Studies Certificate is intended to be a recognition of achievement in addition to completion of a program of study. To date, most participants are general studies and liberal arts students. However, Ivy Tech leaders are currently developing a second global program that builds on the work of the

Global Studies Certificate. The Global Workforce Skills Certificate, currently awaiting approval from the Indiana Commission for Higher Education, is intended to be a stand-alone program of study. The 21-credit certificate program has an explicit workforce component, and program leaders hope that the new certificate program will be more accessible and attractive to CTE students going directly into the workplace. In addition, the newly developed certificate program will include specific course requirements that are common to all students completing the program.

Ivy Tech Community College and IU educators who are collaborating on this project identified four priority components in which students are expected to demonstrate global competency: 1) global economy: Indiana in the world, 2) the global workplace, 3) communicating across borders, and 4) geopolitics.

A curriculum committee of 18 global studies coordinators—one from each Ivy Tech campus—identified the competency components, determined the requirements for certification completion, assessed industry needs, and defined the skills students should attain upon completion of the program. The curriculum committee considered interview data from local business leaders and selected a set of internationalized courses from which students can choose.

Below is a selection of outcomes the curriculum committee determined that graduates of the proposed program must be able to demonstrate upon completion of the program:

- Articulate Indiana’s current and future global connection.
- Demonstrate comprehension of global networks that impact Indiana’s economies and cultures and apply to planning and problem solving.
- Recognize Indiana companies that do business with global suppliers, distributors, and consumers and have international ownership or investments.
- Identify and analyze ways that Indiana citizens require intercultural communication skills to effectively participate in the global economy.
- Increase awareness of economic events and global systems that shape Indiana and other current marketplaces.
- Develop skills for collaborating with diverse others and leading with an intercultural mindset.
- Demonstrate an ability to effectively communicate across cultural, ethnic, national, and linguistic borders.
- Have an understanding of the world’s geopolitics and be aware of current events.
- Have basic understanding of international issues and consider their importance in Indiana.
- Increase understanding of how and why the physical resources, population demographics, and historical events may impact current business, social, and political practices.
- Demonstrate understanding of culture and the importance of considering cultural and historical contexts when giving meaning to events and issues around the world.

In addition to completing an introductory course and five courses across the four competency components, students must complete an internationalized experience and capstone course. For the internationalized experience, students will participate in an extended intercultural experience that will include travel, virtual exploration, internship, externship, and/or interaction with a group or groups culturally different from their own. The program ends with a capstone course in which students must demonstrate global competence mastery through a research project, local internationalized experience, practicum, presentation, and/or global workforce skills portfolio.

References

- Advance CTE. (2017). *Careerclusters*. Retrieved from https://cte.careertech.org/sites/default/files/CareerClustersPathways_0.pdf
- American Association of Community Colleges. (2016). *Case studies in global education*. Washington, DC. Retrieved from https://www.aacc.nche.edu/wpcontent/uploads/2017/09/Inter_Case_Study_2016.pdf
- American Association of Community Colleges. (2017). *The importance of global education*. Washington, DC. Retrieved from https://www.aacc.nche.edu/wp-content/uploads/2017/09/Inter_Case_Study_2016.pdf
- American Association of Community Colleges. (2019). *Fast facts*. Washington, DC. Retrieved from <https://www.aacc.nche.edu/research-trends/fast-facts/>
- Charlton, E. (2019). *These are the 10 most in-demand skills of 2019, according to LinkedIn*. Retrieved from <https://www.weforum.org/agenda/2019/01/the-hard-and-soft-skills-to-futureproof-your-career-according-to-linkedin/>
- Community College Research Center. (2019). *Community college FAQs*. Retrieved from <https://ccrc.tc.columbia.edu/Community-College-FAQs.html>
- Connley, C. (2018). *Google, Apple and 12 other companies that no longer require employees to have a college degree*. Retrieved from <https://www.cnn.com/2018/08/16/15-companies-that-no-longer-require-employees-to-have-a-college-degree.html>
- Damari, R. R., Rivers, W. P., Brecht, R. D., Gardner, P., Pulupa, C., & Robinson, J. (2017). *The demand for multilingual human capital in the U.S. labor market*. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1111/flan.12241>
- Deloitte & Global Business Coalition for Education. (2018). *Preparing tomorrow's workforce for the Fourth Industrial Revolution*. Retrieved from <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/gx-preparing-tomorrow-workforce-for-the-fourth-industrial-revolution.html>
- Frey, W. H. (2019). *Less than half of US children under 15 are white, census shows*. Retrieved from <https://www.brookings.edu/research/less-than-half-of-us-children-under-15-are-white-census-shows/>
- Hart Research Associates. (2015). *Falling short? College learning and career success*. Retrieved from <https://www.aacu.org/leap/public-opinion-research/2015-survey-falling-short>
- Helms, R. M., Brajkovic, L., & Struthers, B. (2017). *Mapping internationalization on U.S. campuses, 2017 edition*. Retrieved from <https://www.acenet.edu/Documents/Mapping-Internationalization-2017.pdf>
- IBEX. (2019). *2019 benchmarking report on international business education at community colleges*. Retrieved from <https://ibc-static.broad.msu.edu/sites/globalinit/ibc/publications/research/pdfs/ibex2019.pdf>
- Imperatore, C., & Hyslop, A. (2018). *2018 ACTE Quality CTE Program of Study Framework*. Retrieved from <https://www.acteonline.org/wp-content/uploads/2019/01/HighQualityCTEFramework2018.pdf>
- Kahn, Hilary E. (2015). *What makes a course internationalized?* Retrieved from <https://international-initiatives.colostate.edu/files/2015/08/CSU-What-Makes-a-Course-Internationalized-and-Global-Pedagogy.pdf>
- Knowles, G. (2015). *Rethinking career and technical education*. Retrieved from <https://www.aypf.org/blog/rethinking-career-and-technical-education/>
- Korn Ferry. (2018). *Future of work: The global talent crunch*. Retrieved from https://dsqapj1lkrkc.cloudfront.net/media/sidebar_downloads/FOWTalentCrunchFinal_Spring2018.pdf
- Lanahan, L. (2019). *What if we hired for skills, not degrees?* Retrieved from <https://hechingerreport.org/what-if-we-hired-for-skills-not-degrees/>
- Lobaugh, K. M., Stephens, B., & Simpson, J. (2019). *The consumer is changing, but perhaps not how you think*. Retrieved from <https://www2.deloitte.com/us/en/insights/industry/retail-distribution/the-consumer-is-changing.html>
- Lone Star College. (2019). *Faculty international explorations*. Retrieved from <http://www.lonestar.edu/fie.htm>

- Lu, J. G., Hafenbrack, A. C., Eastwick, P. W., Wang, D. J., Maddux, W. W., & Galinsky, A. D. (2017). "Going Out" of the box: Close intercultural friendships and romantic relationships spark creativity, workplace innovation, and entrepreneurship. *Journal of Applied Psychology*, *102*(7), 1091–1108. Retrieved from https://www.researchgate.net/publication/313916209_Going_Out_of_the_box_Close_intercultural_friendships_and_romantic_relationships_spark_creativity_workplace_innovation_and_entrepreneurship
- Malone, N., Baluja, K. F., Costanzo, J. M., & Davis, C. J. (2003). *The foreign-born population: 2000*. Retrieved from <https://www.census.gov/prod/2003pubs/c2kbr-34.pdf>
- Mansilla, V. B., & Jackson, A. (2011). *Educating for global competence: Preparing our youth to engage the world*. New York. Retrieved from <http://asiasociety.org/files/book-globalcompetence.pdf>
- Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., Ko, R., & Sanghvi, S. (2017). *Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages*. Retrieved from <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>
- Marr, B. (2019). *The 10 vital skills you will need for the future of work*. Retrieved from <https://www.forbes.com/sites/bernardmarr/2019/04/29/the-10-vital-skills-you-will-need-for-the-future-of-work/#465687f73f5b>
- NACE Center for Career Development and Talent Acquisition. (2019). *Career readiness defined*. Retrieved from <https://www.naceweb.org/career-readiness/competencies/career-readiness-defined/>
- Nair, I., & Henning, M. (2017). *Models of global learning*. Retrieved from <https://secure.aacu.org/imis/ItemDetail?iProductCode=E-GLMODELS>
- National School Boards Association. (2019). *Six LifeReady skills for career, college and success in life: A report of the Commission to Close the Skills Gap*. Alexandria, VA. Retrieved from <https://www.nsba.org/-/media/NSBA/File/nsba-report-of-the-commission-to-close-the-skills-gap-2019.pdf?la=en&hash=0573C0365E3F5FE7B9ACF9BF374328E62DBB57EE>
- Pring, B., Brown, R. H., Davis, E., Bahl, M., Cook, M., Styr, C., & Dickerson, D. (2018). *21 more jobs of the future: A guide to getting and staying employed through 2029*. Retrieved from <https://www.cognizant.com/whitepapers/21-more-jobs-of-the-future-a-guide-to-getting-and-staying-employed-through-2029-codex3928.pdf>
- PwC. (2018). *The talent challenge: Rebalancing skills for the digital age*. Retrieved from <https://www.pwc.com/gx/en/ceo-survey/2018/deep-dives/pwc-ceo-survey-talent.pdf>
- Radford, J. (2019). *Key findings about U.S. immigrants*. Retrieved from <https://www.pewresearch.org/fact-tank/2019/06/17/key-findings-about-u-s-immigrants/>
- Rock, D., & Grant, H. (2016). *Why diverse teams are smarter*. Retrieved from <https://hbr.org/2016/11/why-diverse-teams-are-smarter>
- U.S. Department of Education. (2012). *Succeeding globally through international education and engagement*. Washington, DC. Retrieved from <https://www2.ed.gov/about/inits/ed/international/international-strategy-2012-16.pdf>
- United States Census Bureau. (2019a). *2018 American Community Survey 1-Year Estimates*. Retrieved from <https://www.census.gov/programs-surveys/acs/>
- United States Census Bureau. (2019b). *Population estimates show aging across race groups differs*. Retrieved from <https://www.census.gov/newsroom/press-releases/2019/estimates-characteristics.html>
- World Economic Forum. (2016). *The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution*. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf
- World Economic Forum. (2017). *Realizing human potential in the fourth industrial revolution: An agenda for leaders to shape the future of education, gender and work*. Retrieved from http://www3.weforum.org/docs/WEF_EGW_Whitepaper.pdf
- World Economic Forum. (2018). *Eight futures of work: Scenarios and their implications (white paper)*. Retrieved from http://www3.weforum.org/docs/WEF_FOW_Eight_Futures.pdf
- Zhang, J., & Oymak, C. (2018). Participants in subbaccalaureate occupational education: 2012. *Stats in Brief (NCES 2018-149)*, 20. Retrieved from <https://nces.ed.gov/pubs2018/2018149.pdf>

Career Ready Practices: Reflecting Global Readiness

Career Ready Practices (CRP) describe the career-ready skills that all students should possess if they are to be successful in the careers of their choice. Developed by a diverse group of educators, administrators, business/industry leaders, and researchers under the guidance of Advance CTE (formerly National Association of State Directors of Career Technical Education Consortium, Silver Spring, MD), these practices are not exclusive to any specific career pathway, CTE program of study, discipline, or level of education. Rather, educators should teach and reinforce the Career Ready Practices in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through their educational pathway. This also means the Career Ready Practices are closely tied to global readiness, and provide an additional way to consider how to equip every student with global competence.

The first paragraph below each CRP is a formal part of the CRP and published by Advance CTE. The second paragraph labeled ***Global Readiness*** is an addition by the Asia Society to more clearly communicate the specifics of preparing students for a global economy and community.

Career Ready Practices

1. Act as a responsible and contributing citizen and employee.

Career-ready individuals understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community, and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.

Global Readiness

From a global perspective, career-ready individuals understand they are members of a global community and act in ways that improve both their local and global communities and workplaces. They can identify, create, and act on opportunities for personal and collaborative action across disciplines, industries, and/or borders to address a situation, event, issue, or phenomenon in a way that is likely to improve conditions.

2. Apply appropriate academic and technical skills.

Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.

Global Readiness

Individuals ready for careers in a global economy actively seek opportunities to expand their understanding of diverse cultures in order to appropriately apply academic and technical skills in international contexts. They can skillfully apply appropriate technological resources to communicate and collaborate expertly with diverse individuals and groups and apply their global competency skills readily and in all appropriate contexts.

3. Attend to personal health and financial well-being.

Career-ready individuals understand the relationship between personal health, workplace performance, and personal well-being; they act on that understanding to regularly practice healthy diet, exercise, and mental health activities. Career-ready individuals also take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success.

Global Readiness

Career-ready individuals are able to explain how differences in contexts and cultures can influence health and financial well-being, which can in turn influence diverse perspectives and interpretations of situations, events, issues, and phenomena.

4. Communicate clearly, effectively, and with reason.

Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.

Global Readiness

Globally competent, career-ready individuals demonstrate a precise understanding of the unique perspectives of diverse audiences and how those perspectives impact their interpretation of communicated information. Global career-ready individuals apply this understanding to meet the communication needs of their audience—whether it be team members, clients, coworkers, family, or community members.

5. Consider the environmental, social, and economic impacts of decisions.

Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organizations, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment, and profitability of the organization.

Global Readiness

On the global level, career-ready individuals understand that their decisions will impact not just their local context, but a global environment, economy, and society. They reflect on the effectiveness and cultural appropriateness of their actions and advocate for improvements in our interdependent world. They can honestly and realistically evaluate results of short- and long-term actions, and describe implications, issues, shortfalls, and/or remedies for future actions and advocacy.

6. Demonstrate creativity and innovation.

Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks, or problems, and they discern which ideas

and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

Global Readiness

Global career-ready individuals are able to individually and collaboratively execute a plan that is culturally responsive, innovative, and sustainable, and results in the improvement of a local, regional, and/or global situation.

7. Employ valid and reliable research strategies.

Career-ready individuals are discerning in accepting and using new information to make decisions, change practices, or inform strategies. They use a reliable research process to search for new information. They evaluate the validity of sources when considering the use and adoption of external information or practices. They use an informed process to test new ideas, information, and practices in their workplace situation.

Global Readiness

When using research strategies, career-ready individuals also display global competence by selecting and using a variety of international and domestic sources in multiple formats or media to identify and assess the most important evidence that addresses a global question. They can develop a clear and specific position based on evidence that considers multiple perspectives and draws defensible, logical conclusions in response to a global question.

8. Utilize critical thinking to make sense of problems and persevere in solving them.

Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem. They thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

Global Readiness

In addition, globally competent career-ready individuals can recognize and describe the significance of a problem or situation to the global community. They incorporate diverse cultural, economic, and environmental considerations into their assessment of options and plan of action to address problems. They consider the potential for impact by evaluating previous approaches, varied perspectives, and possible consequences, both intended and unintended.

9. Model integrity, ethical leadership, and effective management.

Career-ready individuals consistently act in ways that align to personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the direction and actions of a team or organization, and they apply insights into human behavior to change others' actions, attitudes, and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morale, and organizational culture.

Global Readiness

From a global perspective, career-ready individuals provide a comprehensive analysis of how varying perspectives influence human interactions, and how this affects people's understandings of a situation, event, issue, or phenomenon. They can act in a way that is likely to improve conditions.

10. Plan education and career path aligned to personal goals.

Career-ready individuals take personal ownership of their own educational and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience, and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the educational and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

Global Readiness

Career-ready individuals are culturally competent. They identify and incorporate global perspectives and skills in their education and career plans. They practice culturally appropriate behaviors, make some mistakes, receive feedback, and question their own assumptions when interacting with diverse cultures. They have a global mindset that allows them to work with and lead diverse colleagues as they conduct business with people from diverse backgrounds and have a more informed view of the opportunities and options afforded through a global economy.

11. Use technology to enhance productivity.

Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring and using new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks—personal and organizational—of technology applications, and they take actions to prevent or mitigate these risks.

Global Readiness

To enhance productivity, career-ready individuals weigh cultural considerations when employing technology. They apply appropriate technological resources to analyze and predict regional, national, and global demographic and economic trends to support product and service availability.

12. Work productively in teams while using cultural/global competence.

Career-ready individuals positively contribute to every team, whether formal or informal. They apply an awareness of cultural differences to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Global Readiness

Global career-ready individuals can initiate investigations of the world by framing questions, analyzing and synthesizing evidence, and drawing reasonable conclusions about global issues. They can think critically and creatively about global challenges, and can recognize, articulate, and apply an understanding of different perspectives, including their own. They have the ability to communicate and collaborate effectively in diverse teams, whether formal or informal, and can translate their ideas, concerns, and findings into responsible actions—individual or group—to improve conditions.