

Establishing a Research-Focused Liberal Arts College in China: Duke Kunshan University

Haiyan Gao & Yijun Gu

Duke Kunshan University (DKU), a new liberal arts and science university in China, with Duke University and Wuhan University as academic partners, is an experiment in twenty-first-century characteristics and global challenges. DKU's undergraduate degree program features an innovative, integrated, and interdisciplinary curriculum focused on cross-disciplinary challenges and research experiences. Its interdisciplinary research centers and graduate programs help attract international faculty and students, while its residential setting promotes diverse, rich, and meaningful interactions beyond the classroom. The shared vision for DKU among students, parents, faculty, staff, partner universities, and other stakeholders helps ensure the university's success. And the phenomenal achievements of the first cohort of graduates from the inaugural class of 2022 is evidence that the DKU experiment is working, despite many challenges.

Located thirty-seven miles west of Shanghai, Duke Kunshan University (DKU) was established through a partnership between Duke University in the United States and Wuhan University in China. A nonprofit, joint venture university, DKU was accredited by China's Ministry of Education in September 2013. In August 2014, it welcomed its inaugural class of graduate students and students for a nondegree undergraduate Global Learning Semester program. Following these developments, DKU started designing a new liberal arts curriculum and launched a four-year undergraduate degree program in August 2018. The goal of this program was to renew and strengthen the liberal arts and sciences tradition, characterized by a profound integrative and innovative curriculum in response to the opportunities and challenges of the globalized twenty-first century.

This century has witnessed increasingly complex problems across the boundaries of traditional disciplines and emerging fields. And the process of globalization has rendered all students in need of global consciousness and competencies. These rapidly changing dynamics – whether in the social and political realms, or in the fields of science, the environment, and health – recall the new opportuni-

ties for liberal arts education that emphasize empathy, transferable intellectual ability, and demonstrated capacity to apply knowledge and skills in real-world settings. A bold adventure, DKU provides a new type of liberal arts education in China: that of a liberal arts campus embodied in an interdisciplinary research university.

In the United States, while liberal arts colleges support the tradition of engaging students in research, research is not a primary focus for these colleges. Building a liberal arts university that is also a research university is itself a new experiment, so the success of DKU may provide valuable experiences and lessons for well-established liberal arts colleges.

Although the DKU model is rooted in the cultivation of humanism (a core value of liberal arts education), it significantly emphasizes the unity of multiple disciplines, knowledge creation, and applied learning, considering the fundamental changes occurring in both contemporary and future society. To fulfill these principles, the undergraduate program features an integrated, interdisciplinary, and research-oriented curriculum, with a strong focus on promoting global consciousness, cross-cultural understanding, and pioneering research in service to society.

The mission of DKU not only integrates education and research, it also breaks the boundaries of these specialties by fostering collaboration across their course units. The education pedagogy emphasizes the importance of educational breadth, free inquiry, and deep engagement. For example, college divisions collaborate with research centers to serve as integrated education hubs. The curriculum is also characterized by an interdisciplinary framework built upon divisional foundation courses, advanced work in disciplinary and interdisciplinary fields, fieldwork-based features, and a Signature Work Project that effectively connects coursework with practices, internships, and other experiential activities that further strengthen the creation and integration of knowledge, practice, and individual interest.

This model provides a broad range of multidisciplinary learning and cognitive approaches, with a focus on specific areas that reflect the contemporary challenges human beings face. Integration is the key feature in the entire academic design, considering profound changes in disciplines that have taken place in the past few decades. For example, in the division of the natural sciences, biology and life sciences have become increasingly quantified, traditional boundaries between disciplines have become more blurred, and new interdisciplinary fields have emerged, such as data science, biophysics, and biomathematics. Traditional courses, therefore, cannot properly meet modern demands. For these reasons, DKU relies on interdisciplinary learning, problem-solving approaches, and the research strength of Duke, Wuhan, and itself to meet emerging demands. Under this philosophy, the undergraduate college is organized into three divisions: natural and applied

sciences, social sciences, and humanities and arts. These divisions have no departments, focusing instead on integrating two strands of learning: disciplinary and interdisciplinary studies. Faculty members from the three divisions work on a significant proportion of courses that bring together cognate disciplinary knowledge, and form teams to deliver the courses collectively. Thus, key features of DKU's undergraduate program are flexibility and interdisciplinarity. DKU courses have unique, innovative characteristics that emphasize shared knowledge and experience, integrated and in-depth learning, and flexible course combinations that offer students sufficient choices for learning and experience.

Duke Kunshan University experimented with a pioneering Global Learning Semester (GLS) program before the full launch of its undergraduate degree program. To begin, GLS brought together undergraduate students from more than twenty partner universities in China and foreign universities like Duke and Shiv Nadar University in India in a semester-long liberal arts program at DKU. This program offered courses taught by faculty from Duke, DKU, Wuhan, and other distinguished institutions, innovated in various areas that were later adopted by the undergraduate degree program. Research hubs at DKU proactively provided interdisciplinary research opportunities to GLS students as well. While experimenting with GLS, DKU was designing its undergraduate education in parallel, not simply to mimic traditional practices but rather to emphasize the seven “animating principles” expressed in its curriculum and overall goals: rooted globalism, purposeful life, collaborative problem solving, independence and creativity, research and practice, lucid communication, and wise leadership.¹ These principles are embedded in the undergraduate degree program through the following innovative features.

First, a semester is divided into two intensive seven-week sessions, with some courses flexibly adapted to fourteen weeks in length. The seven-week model allows focused and immersed studies, though students can move quickly to other topics. This structure also facilitates better research and teaching partnerships with visiting faculty. Second, DKU made a big leap in designing a twenty-first-century liberal arts curriculum that pushes the boundaries of integration and interdisciplinarity. The curriculum is composed of common core courses, divisional foundation courses, and interdisciplinary and disciplinary courses. The common core course series, focusing on big questions and critical challenges, helps students develop shared knowledge and experience, so they are prepared to engage, debate, and grow. Student engagement in the series draws from and integrates humanistic and scientific knowledge in three common core courses: *China in the World* (year one), *Global Challenges in Science, Technology and Health* (year two), and *Ethics, Citizenship and the Examined Life* (year three). *China in the World* focuses on historical and contemporary exchanges between China and oth-

er regions and countries. The course invites students to think about the commercial, intellectual, and scientific engagement of China in the world, and the world in China, from an interdisciplinary perspective. Student feedback has been excellent, noting eye-opening experiences and refreshing exchanges of views via the broad perspectives and distinct cultural backgrounds offered. Global Challenges in Science, Technology and Health not only animates DKU's mission to prepare students to work collaboratively and wisely to confront global challenges with imagination, empathy, and rigor, it also helps students develop common sense and critical thinking in the arenas of science and technology. And finally, Ethics, Citizenship and the Examined Life balances traditional and contemporary analyses of moral self-cultivation with examinations of personal obligations that extend beyond the self: that is, to communities, religions, political parties, nations, and humanity.

The divisional foundation courses serve as an integrated base for interdisciplinary studies. For example, Integrated Science Series, a divisional foundation course in the natural sciences, adopts team-design and team-teaching of physics, chemistry, and biology. This approach helps students broaden their horizons, grasp cutting-edge questions about and methodologies of science disciplines, and understand the close relationship among these domains. Following their common exposure to integrated sciences, students choose a major that has both disciplinary and interdisciplinary components. Integration of disciplines also runs through the curriculum design for the social sciences, as well as the humanities and arts. Thus, the overall design considers and promotes both intersection and integration between the natural sciences, social sciences, and the humanities and arts. In this curriculum framework, students and teachers form horizontal and vertical learning communities for knowledge interaction. Interdisciplinary *horizontal* communities span multiple disciplines and address each topic from different subject areas, perspectives, and approaches. Disciplinary *vertical* communities align with traditional disciplines and provide in-depth study and exposure in discipline-specific methods. Students can adapt their study approaches to participate in both communities at different stages.

Additionally, signature work and experiential education serve as key components of capstone projects for DKU students. Signature Work projects differ from traditional thesis projects in many ways and emphasize crafting a three-year journey that fosters students' holistic development. One feature of these projects is students' involvement to choose their own research beginning sophomore year and continuing to graduation. Throughout this period, advisors and faculty members support students as they develop pathways that include thematically linked courses, along with cocurricular and experiential activities. These pathways allow students to create substantial scholarly or creative products of importance to themselves and society. Their structural designs also shape students' curriculum,

leading to tailored methods of learning that are student-centered and, thus, driven by their needs and interests.

DKU's undertaking is not without challenges, however. The first challenge comes from acquiring approval to offer such an innovative curriculum. To launch its undergraduate program in the 2018–2019 academic year, DKU needed to get the first set of academic majors approved by China's Ministry of Education (MOE) in the spring of 2017. Applications for the MOE's approval for an academic subject already on the list of majors takes about eight to nine months. For new majors, it typically takes more than a year. Although all DKU majors are new in terms of cross-disciplinary combinations, the approval process for new majors was not applicable here. We faced an interesting dilemma in finding a way to conform our innovative, interdisciplinary majors to the traditional disciplinary majors accepted by the MOE. This tested the collective ingenuity and teamwork of faculty and staff at DKU, Duke, and Wuhan Universities, who creatively matched new majors to those already on the MOE's list so they could be approved with their innovative designs intact. Our painstaking effort paid off when the initial round of all eight majors was approved by the MOE in the spring of 2017. In the summers of 2017 and 2018, we applied for additional majors using the same strategy.²

Another challenge concerns certain MOE requirements for courses with students from Greater China (that is, Mainland China, Hong Kong, Macau, and Taiwan). *China in the World*, a hugely successful common core course that we discussed before, does not fully meet the MOE requirement that calls for additional courses to cover Chinese history, law, society, and culture. This presented several challenges in course design and implementation. After brainstorm and workshop sessions between DKU and Wuhan, a team of Wuhan faculty from multiple schools did an outstanding job in designing two courses focused on Chinese history, society, and culture that debuted in 2019 to excellent student feedback. While this was a challenging situation for DKU, it was not unique to the institution as other joint venture universities in China must meet the same requirement.

One last challenge rises from implementing a new curriculum. Take, for example, the integrated science foundational course series. Developing and implementing an integrated science curriculum has always been challenging, so the faculty committee, who designed the courses, studied the examples of Princeton University and Virginia Tech. In the Princeton case, when it came to students' science and math backgrounds, such courses were offered to a small fraction of students, while at Virginia Tech, the courses were offered to a much larger and somewhat homogeneous student population. DKU's integrated science curriculum was more like the Princeton version in its design. However, the goal was to offer these divisional foundational courses to all DKU students who were interested in science. The series, which originally consisted of four courses, went through iterations by an expanded team of DKU, Duke, and Wuhan faculty during on-the-ground implementation

in the 2018–2019 academic year. Two things we learned quickly during implementation, which required further adjustments and adaptation, were that the student population at DKU was diverse and that students came from high schools in over thirty countries. Therefore, they had varied backgrounds in high school math and science. Another complication was the unique seven-week module that made practical implementation of such an integrated science course series extremely challenging for faculty, and especially for students, as there are only so many laboratory experiments one can reasonably schedule in seven weeks. This can leave students unintentionally shortchanged when it comes to the hands-on experience they need to comprehend theoretical concepts. Thus, the changes made to the integrated science curriculum during the 2018–2019 academic year shifted the original four-course sequence into a hybrid form of two integrated science courses of biology, chemistry, and physics, with three additional courses tailored toward each of these subjects, respectively. This revised curriculum was implemented immediately and worked well. Students still had adequate exposure to the integrated biology, chemistry, and physics experience, while simultaneously having their interest in a particular scientific discipline better met by this hybrid form.

As a small, newly established liberal arts and research university, DKU's undergraduate curriculum does not aim to cover all areas of study. Instead, it focuses on selective disciplinary and interdisciplinary concentrations that students combine to declare their majors. The flexibility students have in combining concentrations reflects the breadth of contemporary research and the depths of their scholarly interests.

The concentrations split into two strands: one with an emphasis on disciplinary focus and another emphasizing interdisciplinary approaches. Disciplinary and interdisciplinary concentrations can also merge to form a student's major, and there are more than forty combinations that can fulfill a degree. Environmental science, global health, applied math and computational science, behavioral science, and media and arts are a few examples of interdisciplinary approaches. Furthermore, students can combine concentrations – for instance, environmental science with chemistry, biology, or public policy – to continue different paths that expand or deepen their chosen program. Meanwhile, the boundaries between academic divisions are also blurred, so that fields like computation and design mix with social policy and digital media. These concentrations closely correlate with the graduate programs and research strength of DKU, Duke, and Wuhan. Undergraduate students benefit from the opportunity to vertically integrate their learning with graduate students and researchers through fully supported and guided collaborative learning in graduate courses, and involvement in research centers.

As a new type of liberal arts and research university, one important aspect of DKU is its early design and creation of interdisciplinary research centers and grad-

uate degree programs prior to the launch of the four-year undergraduate program. The first research center established at DKU was the Global Health Research Center in 2013, which was in full alignment with Duke and Wuhan Universities' research strength in this area. The research center focuses on noncommunicable diseases, environmental health, health policies and systems, and emerging infectious diseases. The university also launched the Global Health Master's program in 2014.

The Environmental Research Center was the second research hub established at DKU, amid the environmental problems that represent another major challenge facing the world. The center is synergistic with the Global Health Research Center, the International Master of Environmental Policy (iMEP, a graduate degree program offered by Duke University at DKU), and with Duke University's Nicholas School of the Environment, which boasts one of the most highly rated graduate programs in environmental policy and management in the United States.

A few important principles have also been adopted in designing and establishing research centers at DKU: first is addressing pressing global issues, which require interdisciplinary approaches and which have more acute challenges in China; second is building upon the research strength of partner universities, while growing DKU's strength in emerging areas together with these partners; and third is developing DKU's research impact as a small liberal arts and research university through synergies across all research areas, and vertical integration with graduate and undergraduate degree programs.

Two additional, major research centers established at DKU are the Institute of Applied Physical Sciences and Engineering (iAPSE) and the Zu Chongzhi Center for Mathematics and Computational Sciences (ZCCMCS), with data science being a prominent part of both research centers since data and computational science, and the synergy between these sciences, are among the innovative strengths DKU is developing, as well as further expansion into synergies with the social sciences and the humanities. At DKU, collaborations on data science between iAPSE, ZCCMCS, and other university centers – such as the Global Health Research Center, the Environmental Research Center, the Center for the Study of Contemporary China, and the Humanities Research Center – are also robust, with a considerable portion of undergraduate students either working or having worked on projects around this cluster.

These research centers, together with DKU graduate programs, provide important synergies and vertical integration with the undergraduate degree program. The extent to which undergraduate students participate in graduate classes, and their collaborative engagement of independent research, highlights the bold innovation of this program. For instance, ZCCMCS organizes workshops and networking opportunities for students that support academic endeavors like Signature Work Projects; while students from undergraduate, postgraduate, and research programs form close collaborations; and ZCCMCS faculty supervise stu-

dent research projects alongside faculty from the division of natural and applied sciences. A typical project for a student could focus on theoretical neuroscience with guidance from faculty in applied mathematics and biology. In addition to the innovative aspects of this undergraduate program, grants offered by research centers and the college – which facilitate student-student and student-faculty research collaborations – flourish under unified administration at DKU that promotes undergraduate research and entrepreneurship practices.

Despite such progress, there are many challenges associated with building research capabilities and support systems at DKU. On the faculty level, the responsibilities of liberal arts education can conflict with the faculty's research goals, agendas, and general scholarship, as well as the work they do to compete for grants in China that fund research pursuits. On the university level, without support for and promotion of research at DKU, faculty recruitment would be even more challenging. There has also always been more interest at Duke University in innovations of liberal arts education and certain areas of research such as China studies, global health, and environmental studies. On the municipal level, while the city of Kunshan has supported DKU generously, there remains an understandable preference for subject areas like applied science and engineering that promise quick returns on investment. Research collaborations between Duke and DKU faculty are also becoming more difficult because of the increasing tensions in relations between the United States and China, such as the clash of ideologies, competition between the nations, and risks in many science and technology areas. And while Wuhan University has been a loyal partner in the DKU enterprise, it has kept a low profile in its overall engagement in academics and research. As a result of such difficulties on many levels, a major challenge for DKU in the next decade will be sustaining and enhancing its research capabilities after some initial success.

The successful implementation of DKU's innovative yet challenging curriculum is aided substantially by its small and close-knit campus design. Though the university was designed to support a small body of diverse students, it goes beyond that to create an even more closely connected and supportive community of students, staff, and faculty members. At DKU, most students and some faculty members live in accommodations on campus or nearby off campus. In particular, visiting faculty from Duke and Wuhan, who make up about one-third of teachers, live in the same residence quarters as students. This compact campus design nurtures DKU's culture of equal and rich interactions between all members of the community.

Several factors contributed to its formation. One was an innovative curriculum that attracts adventurous students with clear expectations, tentative prospects for their life goals, and a readiness to take on challenges. To quote Peter Ballentine, a graduate of the inaugural class of 2022, he found a “kinship with other students

who were [similarly] curious and adventurous.”³ Ballentine was one of many well-rounded and high-performance students constituting DKU’s international and diverse student body, wherein approximately 35 percent of international students were admitted from over ninety countries worldwide.

Another factor of the institution’s specific campus design was to empower certain developmental processes for undergraduate students, such as their personal and cultural maturation, and unification of selfhood and identity.⁴ An ideal liberal arts college should enable students’ growth in these areas as they become members of broader society. This is why students from different backgrounds are encouraged and supported to live together in residential housing at DKU, where they also participate in various social, academic, and cultural activities that bring them together. This form of community plays a vital role in preparing students to responsibly promote a globalized vision, inclusive dialogue, international competitiveness, and thorough understanding of both their own societies and those beyond. It also helps students become active and engaged citizens in local, national, and international affairs.

All these features not only help promote the personal and academic growth of DKU students but, more important, they support students’ wellness and sense of belonging. DKU’s positive response to the COVID-19 pandemic was a testimony to their commitment to student safety. The campus provided a safe place for community life during quarantines, with hybrid classes set up immediately after the pandemic’s outbreak to ensure no interruption of instruction and other activities.

Regardless of these benefits, there are still challenges with attracting international faculty and staff to live on or near DKU’s campus. While the surrounding city of Kunshan boasts the highest GDP among all county-level cities for more than twenty years in China, many prefer to live in the nearby cities of Suzhou and Shanghai for cultural reasons or for their own children’s education. We hope more faculty and staff will live on campus following completion of the Phase 2 campus construction, when more housing becomes available.

To design high-quality educational offerings is one thing, to draw and convince prospective students and their parents is another. Although market studies were conducted prior to launching the undergraduate degree program, which highlighted certain attributes of prospective DKU students, there were gaps and uncertainties between reality, findings from surveys, and insights from focus group discussions. While its partner universities, Duke and Wuhan, are well known, DKU is a new university with a unique curriculum. One could even say DKU is a thoughtfully designed, novel experiment with many innovations. However, as with any experiment, it can fail. Eighteen-year-old students can be fearless, but how does one convince their parents to risk their child’s college education, some of the most informative years of their lives? For a long

time, the Chinese university system addressed this uncertainty by following the Soviet Union–style of highly specialized and job-focused education models.⁵ Although the weakness of such models has been clear to many, being able to find a job after getting a college degree remains important to many parents. What has helped DKU succeed, then, in attracting new students and parents, is its consistent and powerful messaging on the value of liberal arts education and its globally conscious design – one that is mindful of the twenty-first century’s global economy and the attending challenges facing humanity.

This messaging is communicated through open-house events that let high school students and their parents experience the DKU model; many visits by DKU faculty, university leaders, and staff to high schools in Chinese provinces prior to the start of new student recruitment; similar visits to schools in the United States to engage prospective students; and social media campaigns that serve as DKU’s main channel for recruitment from outside of China and the United States. These outreach efforts combined with other selling points – such as the high-quality curriculum that took years of collective effort to design, as well as the clear, consistent, and persistent message on the value of such high-quality educational goods, and the deployment of all available communication tools and resources to connect with students and their parents – have helped the university succeed in attracting future graduates.

In the summer of 2022, Duke Kunshan awarded its inaugural undergraduate class with a graduation ceremony that celebrated the university’s fulfilment of its education goal. Eighty-two percent of the graduating class continued their studies at graduate schools, the majority of whom (70 percent) were admitted by world-leading institutions such as Harvard University, Yale University, the Massachusetts Institute of Technology, Oxford University, and Cambridge University. Four graduates were awarded prestigious Rhodes, Schwarzman, and Yenching Academy scholarships. The remaining 18 percent of graduates pursued work in industries and public sectors worldwide.

Thus, the success of undergraduate research and entrepreneurship at DKU has been demonstrated by the enormous accomplishments seen in its inaugural class that highlight the benefits of facilitating support for students’ early involvement in research and practical projects. For example, one student was part of a research team in chemistry for two years, published two papers as the lead author, presented at the American Physical Society’s research conference in 2021, and secured a full scholarship for a PhD program in physical and engineering biology at Yale.⁶ A considerable number of additional undergraduate students have had work published, or scheduled to be published, in peer-reviewed journals such as the prestigious *Physical Review Letters*, while others charted transformational journeys through the university’s multidisciplinary curriculum.⁷

Moreover, the undergraduate program achieved a relatively balanced declaration of majors across natural and applied science, social science, and the humanities and arts. Considering the pressure facing liberal arts education worldwide through reallocating funds from the arts and humanities to focus solely on STEM fields, the DKU model is telling in its resistance. For the 2022 class, 52 percent of students declared majors in natural science, with 29 percent in basic sciences and 23 percent in data science. A comparable 48 percent of students studied in social science (34 percent) and the humanities and arts (14 percent) combined. The proportion also remains at a stable scale for the class of 2024, with 48 percent in natural and applied science, 37 percent in social science, and 15 percent in the humanities and arts.

The DKU partnership of Duke, Wuhan, and the municipal government of Kunshan City is a strong and interesting one. The original model of DKU, based on Duke's Fuqua School of Business, was completely changed once the broader Duke faculty became interested and engaged. This newer vision resonated and was more aligned with Duke's bold and ambitious global strategy, as well as its roots in liberal arts education and interdisciplinary research. Duke faculty in various schools became interested in the DKU experiment and its interdisciplinary approaches to solving urgent issues in energy, health, and the environment. Having a foot on the ground in China also helped position Duke faculty and students at the frontiers of these challenges in the world's second-most-populous country. At the same time, academic freedom has been an important cornerstone of this partnership for Duke and Duke faculty. But while DKU has been visible to many at Duke, the number of Duke faculty who are actively engaged in DKU remains small.

As a comprehensive university with a relatively long history in China – known for its programs in the social sciences, arts and the humanities, and science and engineering – Wuhan University was a good fit for partnership. Yet despite this suitability, the engagement and overall interest level of Wuhan's faculty in DKU was lower compared with Duke's faculty. As a joint-venture university in China, DKU undergraduate students are expected to receive a DKU degree and a Duke degree by the MOE. Duke's faculty took the lead in driving innovation and experimentation with the new curriculum. Added value did come, however, after the curriculum was socialized with Wuhan faculty for feedback prior to seeking the MOE's approval. From the research side, Wuhan faculty have also shown more interest in collaborating with Duke faculty versus DKU faculty. Nevertheless, this situation is shifting as DKU builds its research capability, and with the completion of a new building to host the Wuhan-Duke Research Institute at DKU.

The city of Kunshan is another interesting partner, with bold, ambitious, and hardworking leadership. By 2000, it had become one of the most prosperous county-level cities in China. In 2022, with a resident population of two million, Kunshan became the first county-level city in China to surpass the five hundred

billion renminbi (RMB) mark for GDP. But Kunshan's long-term aspirations to transform from a manufacturing- to a knowledge-based economy, attract talent from Greater China and beyond, and reclaim ancient cultural glory are beyond these numbers. The city's rejuvenation of Kunqu (also known as Kun Opera, a form of Chinese opera that originated in Kunshan during the fourteenth century) was part of these ambitions, as was the visionary plan of inviting Duke and Wuhan to build the Duke Kunshan University. Still, while Kunshan has been generous, accepting, and supportive of DKU, it has been simultaneously ambivalent since its original interest was not necessarily in the liberal arts. Instead, Kunshan remains more interested in applied and engineering research areas that can help drive the local economy, and ideally in the short term. Furthermore, research requires investment and time for applied research agendas. Therefore, there has been tension at DKU concerning research budgets, research areas, and the time it takes to achieve impactful results. So, while the alignment among the three partners is not perfect, it is perhaps the best anyone can hope for given the vast differences between Duke, Wuhan, and the city of Kunshan.

Despite these challenges, the DKU experiment and its initial success highlight the importance of deep engagement of all stakeholders, especially students, parents, faculty from Duke and Wuhan, Duke University's Board of Trustees, DKU's Board of Trustees and Advisory Board, and the municipal government of Kunshan. In many ways, the inaugural class of students was a self-selected group of pioneering spirits who wanted to take ownership of their education to define their future life and career paths. These students worked side by side with an equally self-selected faculty and staff from around the world. Everyone had a vested interest in the success of DKU, so the next ten to fifteen years will be critically important in solidifying the ongoing success of the university and its culture. While the university matures, a key challenge concerning DKU's faculty and staff will be their continued ability to attract students worldwide who have the same pioneering spirit as the class of 2022. Other important challenges include the continued engagement and interest of faculty from DKU's partner universities, as well as dynamic geopolitical situations, such as China's complicated relationship with the United States.

From its inception, DKU distinguished itself as an international university located in China, with liberal arts education in a residential college setting, and interdisciplinary research at its core. Yet it remains a joint venture Chinese university. And, as it develops, the maintenance of DKU's unique identity and culture in a Chinese environment will be another interesting experiment to watch. Concern must also be given to yet another one of DKU's major challenges: its financial sustainability. Not a new challenge since high-quality education often requires enormous financial resources. DKU's quality, philosophy, and implementation of its undergraduate

education are no exception, as they closely follow models of high-quality liberal arts colleges in the United States. Furthermore, as discussed previously, high-quality research has been in the university's DNA from the outset, an ambition that requires resources. Yet unlike top liberal arts colleges in the United States, DKU does not have an endowment to support these ambitions, and it is unlikely to generate a sustainable endowment soon, seeing as the inaugural class just graduated in 2022. Adding to its fiscal challenges, it is not clear whether the city of Kunshan will continue to support DKU financially as it has been doing with essentially no strings attached, given factors like the recent impacts of COVID-19 on China's economy.

Lastly, the most important challenge DKU faces as a new institution surfaces through the ever complex relations between the United States and China. In the last fifteen years or so, the relationship between both countries has changed drastically, which unfortunately seems to be going in a negative direction. No encouraging sign is in sight for a better relationship between the two governments, or at least there are no concrete efforts toward improvement. Therefore, progress in the foreseeable future will come through human interaction and dialogue. In this context, what can be more impactful than a university like Duke Kunshan?

The early formation of the DKU concept was marked by a cooperation agreement signed between Duke University and the People's Government of Kunshan in January 2010, during the early days of Barack Obama's presidency. It was a time when there were wide interests in collaborations with China in many sectors of U.S. society, including business and higher education. The number of Chinese students studying in U.S. colleges and universities more than doubled from 157,558 to 350,775 during the period starting with the 2010–2011 academic year and ending with the 2016–2017 academic year.⁸ Even then, the reception of the DKU concept by Duke faculty was varied. Historically, the university did not have a strong presence in Chinese studies compared with other top universities in the United States. Faculty were also concerned about investing financial and human resources in a country where academic freedom was not a guarantee.

Despite these concerns, both the Duke-National University of Singapore Medical School and DKU were defined as important parts of the university's global strategy. The university leadership's commitment, patience, and enormous effort in persuasion garnered sufficient support for DKU. However, we cannot assume that faculty, staff, and stakeholders of Duke would continue to see DKU as a worthwhile risk for the partner university in the coming decades. Despite all its challenges, DKU continues to thrive with the graduation of the class of 2023, the occupancy of twenty-two new buildings constructed during Phase 2 of campus construction, the planning for improvements to the physical campus during Phase 3, and the launch of new academic and research programs including possible PhD programs. In these ways, DKU is and will continue to be a once-in-a-lifetime experiment in global higher education with impacts on many fronts in the twenty-first century.

Liberal arts education at large faces key critiques and direct threats in the United States, such as accusations of being elitist in the twenty-first century.⁹ While outside the United States, new education models are expanding liberal arts education philosophy into one that sees the educational vision as the beacon guiding construction and implementation of all aspects of teaching and learning. DKU has tried to address the existing strengths and weaknesses of liberal arts education by deliberately investigating new program models in the United States, Hong Kong, and worldwide. In line with critiques, it has also created a model that is not simply focused on training leadership or competence. The core value of a DKU education lies, rather, in cultivating the next generation of global citizens to share roots in global responsibility, boundary breaking, and humanitarianism. Against the career preparation trend, DKU's liberal arts education is a return to the intrinsic core value of cultivating humanism, because a twenty-first-century liberal arts education model must attend to the big issues and problems arising out of social changes, and to their benefits for humankind.

Conveying the vision of education to all participants is crucial to the fulfilment of that vision. DKU has put enormous efforts into exchanging its vision with students, parents, staff, faculty members, partners, and other stakeholders. Consequently, students continue to accommodate new modules of teaching, new research techniques, and new methods of study while also proactively creating new learning paradigms. Parents share the vision with each other and spread the message of DKU.¹⁰ In faculty recruitment, orientations, and training workshops, DKU stresses its educational vision, collaborative teaching, and interdisciplinarity – thereby promoting the DKU model in teaching and in research. It has been an exciting journey for this newly established university to be acknowledged, appreciated, and supported in such ways. We imagine the innovative designs happening at DKU, and the lessons learned, are not unique to the new university. Perhaps they could be creatively absorbed by other liberal arts education initiatives worldwide.

AUTHORS' NOTE

The authors would like to thank Lingling Wang, Registrar at Duke Kunshan University, for providing information on DKU majors.

ABOUT THE AUTHORS

Haiyan Gao is the Henry W. Newson Distinguished Professor of Physics at Duke University. She served as the founding Vice Chancellor for Academic Affairs at the

Duke Kunshan University from 2015 to 2019, and also served as the Associate Laboratory Director for Nuclear and Particle Physics at the Brookhaven National Laboratory from 2021 to 2024. She has published in such journals as *Nature*, *Review of Modern Physics*, and *Physics Review Letters*.

Yijun Gu served as the Senior Coordinator of Academic Affairs at Duke Kunshan University from 2018 to 2021. Prior to this role, she worked as Assistant to the Vice Chancellor for Academic Affairs at DKU from 2015 to 2018, and as the Political Science Editor of *Social Sciences* at the Shanghai Academy of Social Science from 2013 to 2015.

ENDNOTES

- ¹ “Duke Kunshan University Dual-Degree Program (K-IDST),” Duke University, <https://undergraduate.bulletins.duke.edu/allprograms/dukekunshanprogram> (accessed February 27, 2024).
- ² “Majors,” Duke Kunshan University Office of Undergraduate Studies, <https://ugstudies.dukekunshan.edu.cn/academics/majors> (accessed February 27, 2024).
- ³ John Butcher, “Nothing Compares to DKU,” Duke Kunshan University, May 11, 2022, <https://news.dukekunshan.edu.cn/people-story/nothing-compares-dku>.
- ⁴ Petru Golban, *A History of the Bildungsroman: From Ancient Beginnings to Romanticism* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2018).
- ⁵ Qiang Zha, “How Should Liberal Arts Education Evolve in the Twenty First Century? An Exploration of Universities in China and Beyond,” *Educational Philosophy and Theory* 54 (12) (2022): 2082–2096, <https://doi.org/10.1080/00131857.2021.1984228>; and Isak Frumin and Daria Platonova, “The Socialist Model of Higher Education: The Dream Faces Reality,” *Dædalus* 153 (2) (Spring 2024): 178–193, <https://www.amacad.org/publication/socialist-model-higher-education-dream-faces-reality>.
- ⁶ Yike Guo and Ken Cheng, “Undergrad First-Author Draws Inspiration from Newton’s Study Plan,” Duke Kunshan University, July 19, 2022, <https://news.dukekunshan.edu.cn/people-story/yue-yu-from-dku-to-yale>.
- ⁷ Duke Kunshan University, “Ground-Breaking Study Reveals Physics of Frustrated Photons,” June 27, 2022, <https://news.dukekunshan.edu.cn/research-news/ground-breaking-study-reveals-physics-of-frustrated-photons>; Duke Kunshan University, “Finding Her Path: From Philosophy to the Business World,” July 28, 2022, <https://news.dukekunshan.edu.cn/people-story/finding-her-path-from-philosophy-to-the-business-world>; and Butcher, “Nothing Compares to DKU.”
- ⁸ C. Textor, “Number of College and University Students from China in the United States from Academic Year 2011/12 to 2021/22,” Statista, September 29, 2023.
- ⁹ Scott Doidge, John Doyle, and Trevor Hogan, “The University in the Global Age: Reconceptualizing the Humanities and Social Sciences for the Twenty-First Century,” *Educational Philosophy and Theory* 52 (11) (2020): 1126–1138, <https://doi.org/10.1080/00131857.2020.1752186>.
- ¹⁰ Duke Kunshan University, “The Parents Who Put Their Faith in a New University,” June 2, 2022, <https://news.dukekunshan.edu.cn/people-story/the-parents-who-put-their-faith-in-a-new-university>.