The Campus Guide to Delivering For-Credit Online Learning

coursera
for campus

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Introduction

Recently, the world passed the one-year mark of the COVID-19 pandemic, one of the most challenging global crises "since World War II."[1] The impact on education systems has been particularly "staggering."[2] At the peak of the pandemic, school closures affected 1.6 billion students, including more than 200 million in higher education[3] as universities were abruptly required to shift their programs online due to campus closures.

While many experts predict an end to the strictest public health measures in the near future, there is concomitantly a realization that we must transition into a "new normal." For universities, online learning will, in some capacity, "be a part of education for the foreseeable future,"[4] as a result of both pre-existing trends as well as pandemic-related developments in higher education over the past year. **The question becomes: in what ways can universities leverage online learning as a long-term resource?**

To help improve student experiences for the long term, many universities are taking advantage of enhanced synchronous and asynchronous online learning. Additionally, universities are creating their own online content for both educators and students.[5] Among these universities, some are turning to established online education platforms for access to ready-made online courseware.[6] For example, as of December 2020, more than 4,000 academic institutions worldwide partnered with Coursera for Campus to make online learning available to their students. Universities using Coursera for Campus have access to a global catalog of over 4,600 courses and 4,900 Specializations, in addition to tools to author private content and assessments, hands-on learning with Coursera Labs, and the ability to track learner outcomes with Coursera's learning analytics.

Online learning can help students develop skills outside of their degree programs. Online content can also be used as blended or standalone content in for-credit courses and programs. Doing so can improve student learning experiences and outcomes, according to a selection of international universities that have contributed to this publication.

The purpose of The Campus Guide is to shed light on one possible course of action for universities seeking to leverage online learning as a long-term resource—integrating online courses and content in for-credit educational offerings. In these instances, universities award credit from their institution for the online content provided. The findings in this report are based on a collection of 11 interviews with Coursera for Campus customers from around the world conducted between February 22 and March 12, 2021.[7] All observations related to online learning are based on interviewees' experiences with using online courses and content on Coursera specifically.

The first section explains why the interviewed universities are leveraging online content in for-credit offerings. The second section presents the process that interviewed universities deployed to deliver for-credit online learning, as well some best practices to help guide others through this same process. The third section details observed outcomes of deploying online learning using Coursera for Campus and presents use cases from around the world.

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Why Universities Leverage Online Content in For-Credit Offerings

Although interviewed universities have distinct reasons for incorporating online content into their for-credit offerings and partnering with Coursera for Campus, they also tend to have many overlapping goals.

Enrich student learning experiences

This was the most cited reason by far, and is the result of making education more "flexible and adaptable", which several interviewees said their students are demanding today. Additionally, providing students with high-quality content from "top global institutions" and companies on an "established international platform" such as Coursera improves learning experiences.

Improve student learning outcomes within a course/program

Most interviewed universities have adopted outcomes-based education. Interviewees stated that, by using content on Coursera in for-credit online offerings, they are helping students achieve outcomes. These outcomes span both development of cutting-edge technical knowledge and skills as well as transversal "21st century skills," such as critical thinking, problem-solving, learning how to learn, and lifelong learning.

Increase student employability

According to several interviewees, an online certificate from Coursera can help students become more employable in today's market. As one director of an online learning center explained, an employer would likely hire the candidate with certificates when given a choice between two similar candidates—as the certification indicates that the candidate is interested in continuous learning.

Provide students with global content and perspective

Some interviewees expressed the desire for their students to become "global citizens" with "mental models" that are "more open to the world." Students have opportunities to gain an international perspective by accessing content on Coursera that is authored by 200 university and industry educators across the world.

Shift institutional perspective towards online learning

Many interviewees stated that universities across the globe have already started, before the COVID-19 pandemic, to make sometimes "radical changes" to the way they operate in response to economic and societal changes—and that they need to continue. This includes offering more online learning options, because as Gayathri Mageswaran, Head of the School of Digital Transformation at BAC Education Group (BAC) explained, "most education[al] institutions are actually moving towards adopting innovative technology [online education from third-party providers such as Coursera for Campus] to encourage students to engage and learn with people worldwide."
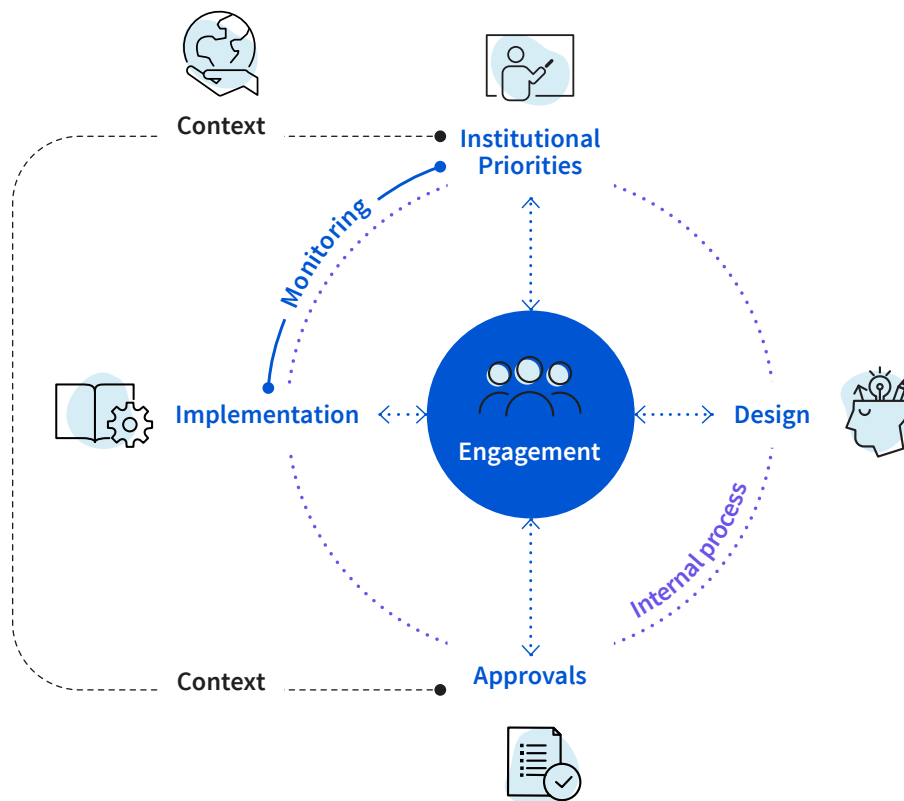
Process
and Best Practices

Process and Best Practices for Incorporating Coursera into For-Credit Offerings

This section describes the overall process for deploying for-credit offerings with Coursera for Campus, including best practices and examples that universities shared. A simplified visualization of the overall process of working with Coursera for Campus to incorporate content into for-credit offerings is shown in Figure 1, below. For the purposes of this publication, this model intentionally takes a high-level approach and focuses on the institutional level only, with the understanding that this approach omits some of the more nuanced processes at the institutional and course levels.

Figure 1

Simplified process of incorporating content on Coursera into for-credit offerings

Context

This represents external factors that affect universities and their internal processes, and, in this case, the process of working with Coursera for Campus to incorporate content on Coursera into for-credit offerings. The COVID-19 pandemic has been the most prominent external factor recently, but there are also many others that are specific to each locality, nation, and/or region.

Institutional Priorities

This involves the identification and/or communication of the needs of universities and the goals that they define for themselves. As seen during the pandemic, external factors can significantly influence the priorities of institutions, which then affect internal processes.

Design

The design step contains multiple sub-processes, including choosing an overall approach to content on Coursera, detailed mapping of content to universities' own curriculum, and designing assessments. Depending on the institution and/or the particular situation, design can overlap substantially with the approvals step.

Approvals

This step encompasses both the internal and external approval processes that universities undergo to obtain authorization to incorporate content on Coursera into for-credit courses and programs. These approval processes, especially external ones, are affected by the broader context; for example, accreditation bodies standards or government regulations.

Implementation

After the design and (in most cases) approval processes, universities turn to the actual implementation of their new courses and programs that incorporate content on Coursera. Most interviewed universities started with pilot tests, often with the intention of scaling up. Implementation is monitored, and lessons learned are used to make necessary adjustments.

Engagement

The engagement of students, faculty members, heads of departments, deans, and staff is crucial to success.

This model is meant only as an aid for universities in working with Coursera for Campus, and does not make any claims or statements beyond this purpose.

Context

The COVID-19 global pandemic disrupted on-campus learning worldwide, but it has also accelerated changes that universities had already put in motion in response to external factors. Some of the most influential of these factors as identified by interviewees and other experts are briefly summarized here.

Digital transformation

Digital transformation is the result of the digitalization of economies and societies, which is contributing to change in every aspect of people's lives, businesses, and society.[8] An ecosystem of technologies such as 5G, artificial intelligence, and blockchain underpin digital transformation and will evolve to drive future changes.[9] Digital transformation has a direct impact on universities, which are expected to undergo their own digital transformations, as well as an indirect impact, through the expectations and needs of employers, students, and graduates.

Shift towards online teaching and learning

Universities have considered digital transformation as both "useful and fundamental,"[10] and a way to "achieve greater access, global reach, personalized instruction, and rapid improvements in pedagogical practices."[11] Post-pandemic, however, there is increasing recognition that digital transformation and the adoption of online teaching and learning is a matter of survival for many universities today[12] — serving as a way to mitigate risks, continue enrollment, and assist students through any crisis or "future calamity."[13]

Evolving skill needs

Digital transformation and an exponential rate of technological change have led to significantly reduced product lifecycles, faster innovation cycles, and intense competition.[14] Businesses and economies need to continually innovate to remain competitive, and knowledge-intensive human capital has become a crucial factor in the ability to do this.[15] The skills required by employers in their employees are not static, however, and are evolving at an increasingly rapid pace alongside technology and innovation. For example, the World Economic Forum predicts that 42% on average of the core skills within existing jobs are expected to change by 2022.[16] Technology and data science skills are the fastest to "decay," with half-lives of less than 10 years, followed by business and leadership skills, which have a half-life of more than 15 years.[17]

As a result, students are seeking out opportunities to develop job-relevant skills. Lifelong learning will be especially important, along with "21st century" or "future" skills[18] such as communication, critical thinking, digital skills, and problem-solving. As some interviewees pointed out, however, developing these skills will require innovative teaching and learning methods on the part of universities.

Institutional Priorities

Interviewed universities all cited at least one of the above factors as impacting their priorities (needs and goals), which in turn led them to partner with Coursera for Campus. The influence of context is combined with other factors as well, such as a university's defined purpose, mission, or characterization. A university that defines itself as "traditional," for example, will have different priorities than one that defines itself as "disruptive" and/or "innovative." The latter is the case for Manipal Global Education Services (MaGE), according to Adarsh Lathika, Head, Strategic Partnerships and Alliances, who said, "We have always, as a group, been known to try out new things, experiment and innovate. We keep thinking about the future, with a 10-year, 15-year, and 20-year horizons." This orientation towards the future led the team to adopt the development of lifelong learning skills, and transdisciplinary skills as key goals, which were one of the priorities that led them to partner with Coursera in 2017.

Other factors influencing how a university defines its priorities include availability of resources, skill levels (e.g., digital skills) of faculty members and staff, and support and engagement of faculty members and staff, among others. However an institution's priorities are influenced, it is important to have these explicitly defined when transitioning to for-credit online learning, according to multiple interviewees. Dr. Edward Roekaert Embrechts of Universidad Peruana de Ciencias Aplicadas (UPC), for example, described the beginning of the university's relationship with Coursera for Campus, saying that he and his team asked themselves, "How can we let Coursera know what we need?" They then held "several weekly meetings trying to portray our needs" to ensure that the Coursera for Campus partnership would meet their expectations.

As Beth Wokabi from Africa Nazerene University (ANU) succinctly put it, "The need[s] will dictate the direction that each individual institution will take," which affects how the other steps in the process shown in the model in Figure 1, page 6, are carried out. As this is a circular process, the lessons learned from implementing the integration of content on Coursera into for-credit offerings can, in turn, lead to the re-examining of a university's priorities, as they relate to Coursera for Campus.

Best Practices

- Identify priorities by reflecting on the future of online education for your institution.

- Keep students' needs in mind when defining priorities.

- Communicate priorities as explicitly as possible to ensure they are addressed successfully.

Design

The design step, which consists of several sub-processes, is perhaps the most pivotal step to ensuring the successful integration of content on Coursera into courses and programs. As with any curriculum design/redesign, it can require a good deal of attention. Dr. Timur F. Umarov, Vice-Rector of Academic Affairs at the International IT University (IITU), stated: "I think the…biggest responsibility of the university is to think through all the processes and details before you integrate Coursera into your curriculum."

Similar to their priorities, the design of solutions have some commonalities while still remaining unique to each institution. While the following elements of the design phase are listed in an order below, this is not necessarily the order that all institutions followed during the design step. These were often overlapping, and for many, it was an iterative process.

Strategic Approach

There are two principal use cases for incorporating content on Coursera into for-credit offerings. In the first, the blended learning use case, content on Coursera is used to complement or substitute individual course content. In the second, the standalone use case, Coursera courses are used to complement or substitute curriculum at the program level. A university can decide to deploy one or both use cases according to their priorities. Many of the universities included in this publication use both to varying degrees.

For example, SVKM's NMIMS (NMIMS) incorporates entire Coursera courses into their engineering degree programs as part of a supplemental 20 credits that students could earn on top of the 150 credits required for an engineering degree. The selected Coursera courses focus principally on cutting-edge technologies, such as artificial intelligence. Because developments in these technologies occur so rapidly, it is sometimes difficult for universities to find faculty members with cutting-edge expertise. Giving students access to Coursera courses developed by industry partners, such as IBM, helps NMIMS students learn about and experience these technologies first-hand. This approach also facilitated the approval step because the accrediting body for the university had explicitly stated in the latest version of their standards that institutions can offer supplemental credits to students and that these can be provided online.

T.A. Pai Management Institute (TAPMI), took a job-ready skills approach in integrating Coursera into their academic curriculum. In collaboration with TAPMI's Campus Placements office, faculty identified Coursera courses aligned with career choices for students to complete as part of their summer internships in order to receive credit for the internships.

Best Practices

- Determine if there are any government regulations or accreditation requirements that would prevent your institution from a particular approach.

- Work backward from your institution's priorities to determine the best approach for your institution.

- Communicate your approach, the reasoning behind it, and expected benefits clearly to faculty members.

- Communicate your approach to students as well to ensure they understand the added value of accessing online content through your university and not on their own.

Detailed Mapping

As with any curriculum design/redesign process, mapping courses on Coursera to for-credit content can require a "good amount of rigor and effort." It's also a key opportunity to source buy-in from stakeholders as they begin to see first-hand how content on Coursera could be used for the courses and/or programs for which they are responsible.

To ensure that detailed mapping processes have been successful, the universities included in this publication have worked both with their dedicated Coursera for Campus team and their own deans, heads of department, and faculty members. As a first step in most cases, Coursera for Campus teams used Coursera's CourseMatch tool to provide universities with a list of courses that match, on a scale of 0 to 100%, their program curriculum or course syllabi. This helped narrow down the large Coursera catalog of over 4,600 courses to a manageable number, which, as Dr. Andrés García at the Unibagué in Colombia stated, was an advantage for them during the mapping process.

Interviewed universities then provided this mapped list to faculty members, heads of departments and/or deans, depending on the overall approach to incorporating content on Coursera. When using content on Coursera to complement or substitute content in individual courses, faculty members were the most involved in the very detailed content mapping. As Dr. Nayef Abu-Ageel, Director of the Online Learning Center at Al Hussein Technical University (HTU) explained, the reason for this is because "the faculty [members are] the drivers who really decide [what] is important, [and] if they believe in the process it will succeed."

For example, at BAC, colleagues Dr. Gary Tan (Head, School of Business) and Gayathri Mageswaran (Head, School of Digital Transformation) sat down with other experienced lecturers from their institution in multiple brainstorming sessions on detailed content mapping. During these sessions, they looked at each program and course syllabus, and "read about it, research[ed] it, ask[ed] our [subject matter] experts to help."

At Mapúa University, many faculty members elected to take some of the courses that were identified by Coursera in order to "try out the course and see if it fits." At ANU, Beth Wokabi, Director of the Center for Academic Excellence, also emphasized the importance of faculty members taking the Coursera courses that they incorporate into their courses, saying, "I have realized…that, as a faculty member, if you're going to use Coursera for your student learning you need to enroll in that course, you need to take the course fast…so that you can be…a good judge [and] you can assist students." Some interviewed universities even make this a requirement for faculty.

Best Practices

- Dedicate enough time to the mapping process, like any other curriculum design/redesign.

- Avoid imposing one approach to mapping on everyone; it's not a "one-size-fits-all" exercise and can vary according to factors like subject matter, desired learning outcomes, and year of study.

- Consider creating guiding principles for mapping.

- Provide continuous pedagogical support to faculty members as they go through mapping processes.

- Communicate openly and listen actively when going through the detailed mapping process with colleagues.

- Use learning outcomes as a guide for mapping to help narrow down content.

- If possible, take the online course that you would like to integrate into your course or program.

- Pay attention to any extra workload for students when mapping.

Assessments

This step in the process was often executed in parallel with the detailed mapping process. Most interviewed universities left the design of assessment up to individual faculty members (when content is incorporated into individual courses) or departments and selected faculty members (when entire courses are used in programs), although some had some general guidelines regarding assessment.

For example, at IITU, only the first attempts by students at the Coursera course continuous assessments are counted, in order to best measure student performance and learning, as well as obtain a more standard distribution of grades. At other universities, the percentage of the final course grade based on Coursera assessments was set at the institutional level. The vast majority of universities interviewed did not use Coursera assessments only but added to or replaced them with their own, which were most often based on their specific learning outcomes.

Best Practices

- Provide a range of suggested assessment options to assist faculty members in designing their own assessments.

- Design assessments so that students also receive continuous feedback from faculty members.

- Use defined learning outcomes as a guide when deciding whether to add to Coursera's built-in assessments.

- Leverage hands-on learning when appropriate to assess students' knowledge and skills, removing some grading requirements from faculty members.

- Consider tailoring assessments of international content to local context so that it is more applicable to students.

Approvals

Obtaining the necessary approvals—both internal and external (e.g., accreditation)—to integrate content on Coursera into for-credit offerings is highly context-specific and can overlap with other steps in the overall process. For the internal approval process, most interviewed universities needed to gain the approval of a body of academic personnel, such as an Academic Council, Learning Committee, or Dean's Council. Often when approaching academic bodies, the individual or team responsible for overseeing the overall process of working with Coursera for Campus would present the partnership, how it works, and how it can benefit students, faculty members, and other internal stakeholders. Some universities were also required to gain approval from their executive board, in which case they would present the business case for partnering with Coursera for Campus.

Regarding external approvals, many accrediting bodies and governments are not yet recognizing the more fundamental incorporation of online learning in higher education. To help elicit changes in standards and policies regarding online education, universities could play an active role in informing regulators and accreditors about the challenges they face when it comes to online education. For example, at ANU, they have been "giving…regulators updates on what [they are] doing to make learning accessible, quality learning accessible, for [their] students," and that this has had an impact, as regulators "[are] trying to catch up" in the wake of the global pandemic.

Most universities interviewed have a high level of autonomy, but many avoided making changes that would require pre-approval ("substantive change") from accreditation bodies, at least in the initial stage of their partnership with Coursera for Campus. Those who will be undergoing reaccreditation and will be reporting their incorporation of content on Coursera in their for-credit offerings, however, articulated that working with Coursera for Campus would have a positive effect on the accreditation renewal process. At Unibagué, for example, Dr. Alfonso Reyes, President, said, "for accreditation, I think [incorporating content on Coursera into courses] is going to be a value-added project in the university." And at ANU, where they are currently carrying out a self-assessment for reaccreditation, Prof. Rodney Reed stated, "I think all in all, they (the accreditation body) will probably be impressed by it (incorporating content on Coursera into courses)."

On the government policy level, some interviewees mentioned policies specifically addressing online education, which have given more freedom to universities to integrate online education into their curriculum over the past few years. These policies have influenced the way these universities deliver online education more generally and how they work with Coursera for Campus specifically.

Universities are finding methods to incorporate content on Coursera into their courses and programs in innovative ways that fulfill government requirements. For example, at Budapest Metropolitan University (METU), they are required to abide by the "Hungarian High[er] Education Act in which the minimum number of contact hours are prescribed by study types." So, they are focusing on incorporating content on Coursera into "short-cycle programs" and using entire Coursera courses to provide credit in their "adult training provision". According to a poll conducted, they "found that [their] part-time students much more prefer online and online asynchronous solutions than those studying full time."

Best Practices

Internal approval

- **Prepare a detailed plan of action and financial analysis to showcase cost-effectiveness.**

- **Demonstrate the benefits of working with Coursera for Campus to students and faculty members in order to gain support during approval processes.**

External approval

- **Stay updated on government regulations and accreditation standards regarding online education.**

- **Consider sharing your experiences regarding transitioning to online education to potentially help regulators and accreditors update their regulations and standards.**

- **Demonstrate how your institution is using online learning to promote lifelong learning skills among students, a key category for some accrediting bodies.**

- **Communicate the added value of online learning for students.**

Implementation

The implementation step entails putting the designed plan into practice. Most interviewed universities have started or are starting implementation as a pilot and intend to use the lessons learned to adjust needs, goals, and design. To do so, it is important to sufficiently monitor progress.

To ensure the sustainable success of implementation, several interviewed universities used voluntary "champions" or early adopters, who served as "mentors and key architects" of universities' strategies.[20] At Mapúa, for example, a group of faculty members volunteered to be the first ones to use the content in their courses. Unibagué began with a group of 12 faculty members, and as Dr. Alfonso Reyes explains, "This group that started the pilot project, [the] 12 professors, are going to be crucial in role to scale [that] up…because they are in the position of sharing with the other colleagues, professors, and staff the outcomes of the process."

Some universities are also using student "champions" to help maintain the motivation of students and their interest in content on Coursera. At Manipal Academy of Higher Education Dubai (MAHE Dubai), for example, they appoint certain students as "Coursera ambassadors." As Dr. Bhakti More, Associate Professor, School of Design and Architecture, explained, these Coursera ambassadors act as "advocates to encourage other students to take online courses." Doing this is key, because keeping students motivated to complete coursework or entire courses independently online requires finding a balance between the flexibility of independent online learning and structure of time limits and other rules. Consistent follow-up can also help keep students motivated and progressing, as well as a support system for students who may "have difficulty [with] asynchronous online learning."

Finally, most interviewed universities have a dedicated team that oversees the entire process of incorporating content on Coursera into for-credit offerings. For example, UPC is working with a small team of six people, and IITU is working with a team of 10 people. While these teams are important during all steps of the process, they are crucial to the implementation step, as they can oversee programs being put into practice, monitor the process, and collect and centralize feedback.

Best Practices

- Start with a pilot test to build support and learn from the process.

- Identify and enlist the aid of faculty members or others who can act as "champions" that can be central to building support and scaling up.

- Find a balance between flexibility and structure (such as time limits) for students.

- Ensure that a support system is in place for students who might have difficulties, and follow up with them regularly.

- Build group cohesion among faculty members and organize regular check-ins.

- Have a dedicated team to monitor implementation and to collect and centralize feedback.

- Develop a microsite to share internally how online learning is being implemented.[19]

Engagement

Throughout all of the steps discussed above, universities greatly emphasized the need to engage internal stakeholders (especially faculty members and students), in order to gain their support for incorporating content on Coursera into for-credit courses and programs. Engagement is a reciprocal exchange between faculty members, students, staff, leadership, etc., and those within the university who are overseeing the overall process of incorporating content on Coursera (or managing certain steps).
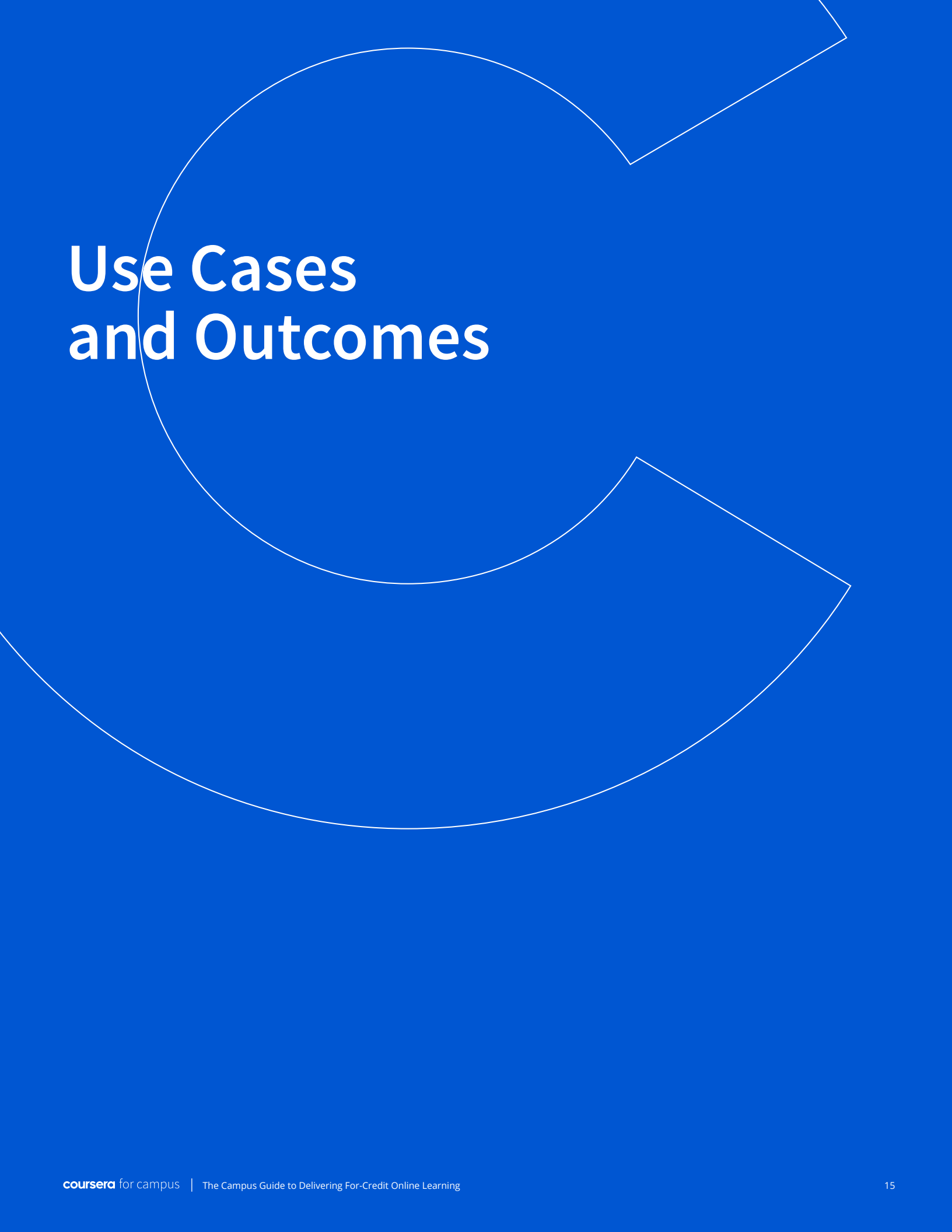
A good place to begin, according to Dr. Edward Roekaert, Rector at UPC, is with purpose. As he explains, "if…people at the university…understand the purpose behind the initiative you get people on board, it's not hard to sell. The problems normally arise when you…don't describe the purpose behind the initiative, when you [don't] describe…how this can benefit students, can benefit alumni, can benefit faculty, can benefit staff. [Once you do this] they all start saying okay this sounds good."

To help engage faculty members specifically, many university teams overseeing the Coursera for Campus partnership would meet regularly with them, especially during the design and approval steps. At ANU, for example, they held faculty workshops to explain why the university would like to partner with Coursera for Campus, and how this "can be an opportunity" for faculty members. Mapúa also held regular meetings with decision makers and faculty members for the same purpose, and to determine how to incorporate content on Coursera in order to benefit students.

Some universities highlighted the importance of engaging students as well. To engage with students, as with faculty members, interviewed universities met and had discussions with them. IITU, for example, held "regular meetings even during weekends [that involved] students, student governments, and student representatives [in this] major decision-making process."

Best Practices

- Clearly communicate the purpose and goals of partnering with Coursera for Campus.

- Hold regular check-ins with internal stakeholders like students and faculty during the entire process.

- Present online content to faculty members (or let them take some courses on their own).

- Incentivize students to engage in online learning.

Use Cases
and Outcomes

Use Cases and Outcomes of Incorporating Coursera into For-Credit Offerings

The two principal use cases reported by universities incorporating content on Coursera into their for-credit offerings are:

Standalone:
Entire Coursera course(s) provided as for-credit course

Blended learning:
Entire or partial Coursera course(s) or Coursera Labs attached to a university course

Based on an analysis of Coursera for Campus customers, approximately more than 59% are currently leveraging the standalone approach and 35% are leveraging the blended learning approach.[21]

Each interviewed university has its own unique way of aligning its priorities with these two use cases. However, most of the initial outcomes observed by universities are similar, despite the approach they used. These outcomes are not necessarily specific to Coursera, and could potentially be observed by any university as a result of implementing online learning for credit.

Equipping Students with Job-Relevant Skills

Through online learning with Coursera, students are developing cutting-edge skills such as artificial intelligence, digital marketing, and Python programming.[22] Students are also developing important transversal skills such as learning how to learn and the "[application of] theoretical concepts on what is currently happening [in] industry and real-life situations."

Blended learning use case
Mapúa University, The Philippines
Building capacity with blended content

Goals
Because they are located in an area that occasionally experiences extreme weather, Mapúa University (Mapúa) had already practiced quickly moving their courses fully online for days at a time due to campus closures. However, with the onset of the COVID-19 pandemic, they wanted to build their capacity for delivering courses online and additionally provide students with asynchronous learning options. They decided to work with Coursera for Campus to fulfill these goals and to give faculty members and students an "additional tool" to achieve learning outcomes.

Process
After going through an internal approval process, Mapúa used Coursera's CourseMatch tool to develop a list of the most relevant courses. This list was given to faculty members, who had the freedom to decide whether and how they would use content on Coursera in their courses, as well as how they would assess it. Faculty members typically choose one or more courses on Coursera to incorporate into their own and require students to obtain the Coursera certificate.The selection of courses is based on learning outcomes and which course on Coursera could be best integrated. Mapúa has observed that students are building the skills they need to apply theoretical concepts through the use of content on Coursera.

Students take courses on Coursera asynchronously at their own pace with faculty members who act as facilitators. These faculty members either took their selected courses on Coursera or familiarized themselves with content during mapping in order to aid students.

While Mapúa initially limited the incorporation of Coursera courses into those of the School of Electrical, Electronics, and Computer Engineering, they are now integrating content into mathematics, physics, data science, statistics, and some multimedia arts courses. Some required field trips or seminars for students, which cannot be done in-person due to public health restrictions, can also be replaced with relevant Coursera courses. Students complete the course and post the certificate on their LinkedIn profiles to receive credit.

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University Leaders Interviewed:

• **Ericson D. Dimaunahan**
Outcomes-Based Education Director, Center for Teaching and Learning

• **Bonifacio T. Doma, Jr.**
PhD, Executive Vice President, Academic Affairs

Mapúa has observed that students are building the skills they need to apply theoretical concepts through the use of content on Coursera.

Universidad de Ibagué, Colombia

Enriching students' skills by embracing online education

University Leaders Interviewed:

- **Dr. Alfonso Reyes Alvarado**
  President

- **Dr. Andrés Alberto García León**
  Professor, Industrial Engineering

- **Juan José Torrente Rocha**
  MSc, Professor and Director, Department of Psychology

Goals

The Universidad de Ibagué (Unibagué) aims to embrace new ways of approaching teaching and learning. The university intends to enrich students' learning experiences and help them develop 21st century skills, such as independent, self-motivated learning. Dr. Alfonso Reyes believes that online education is an integral part of achieving these goals, stating that "universities, in order to survive and remain pertinent in the years to come, should embrace technology and virtual education." Because Coursera provides a "huge library of pedagogical resources with fantastic materials from all over the world," Unibagué decided to partner with Coursera for Campus to work towards achieving their goals.

Process

Twelve innovative faculty members are currently blending content on Coursera into their courses as they see fit as part of a pilot test. Professor of Psychology Juan José Torrente, for example, is requiring students to take one of the six courses on Coursera that he selected to help develop their project management skills in his Project Formulation course. Mr. Torrente instructs students to complete the course that they feel will help them most with their final project for the course, explaining that "I think it is necessary to guide learning but also to allow the student to be autonomous."

In the above example, Mr. Torrente uses the Coursera course that his students choose as 25% of the course content and uses the assessment in this course as 15% of the overall course grade. Otherwise, assessment of content on Coursera is at the discretion of departments and their faculty members.

After the pilot test, Unibagué intends to explore offering Coursera courses in their entirety for credit "in order to make [their] curriculum much more flexible."

Because Coursera provides a "huge library of pedagogical resources with fantastic materials from all over the world," Unibagué decided to partner with Coursera for Campus to work towards achieving their goals.

Increasing Student Motivation and Autonomy in Learning

Students with access to content on Coursera are oftentimes motivated to independently take courses and Guided Projects on Coursera outside of those required by their universities. Ericson Dimaunahan, Outcomes-Based Education Director at Mapúa University (Mapúa), for example, observed that their students enjoy taking courses on Coursera, especially project-based ones from Coursera Labs. He says they are excited to share their Coursera certifications on their LinkedIn profiles, which has resulted in "students develop[ing] self-regulation and student agency in having this kind of experience…which is a big positive impact."

Standalone use case
Al Hussein Technical University, Jordan
Providing transfer credit for online courses

Goals

In Jordan, the Ministry of Higher Education and Scientific Research has defined a national plan that requires universities to "move forward with blended learning" over the next three years, according to Dr. Nayef Abu-Ageel. Al Hussein Technical University (HTU) also considers moving towards blended education as strategically important for its institution and as valuable for their students to help "change their perspective." They chose to partner with Coursera to deliver online learning to equip students with a "broad range of courses" on an "established international platform."

Process

Although HTU works with Coursera for Campus in three different ways, the principal approach is to offer Coursera courses as a replacement for some HTU courses. Department faculty members and heads were responsible for mapping content on Coursera to their curriculum, which was then approved by the relevant dean. Departments offer one or more courses on Coursera to students as an equivalent HTU course through transfer credit. HTU covers the costs of enrolling in the required Coursera courses and students are only responsible for a transfer fee, which represents an overall cost savings for them.

Student grades are based on Coursera course assessments; however, students are required to give an oral or written report after completing the Coursera course(s) to a faculty member who is familiar with the content on Coursera. If this faculty member concludes that the student understood the material well, then she/he allows for the credit transfer to take place. If the student has not mastered the content to the satisfaction of the faculty member, then the faculty member works with the student to address the issue. HTU also offers students access to content on Coursera directly through their Online Learning Center and has observed that students are motivated to use this access to explore beyond the transfer credit possibilities.

**A Crown Prince Foundation initiative institution
Established 2016
Over 850 students
www.htu.edu.jo**

University Leader Interviewed:

- **Dr. Nayef Abu-Ageel**
  Director, Online Learning Center

HTU considers blended education as strategically important for its institution.

BAC Education Group, Malaysia
Delivering outcomes-based blended online learning

Goals

BAC Education Group (BAC) aims to provide students with access to "the best digital resources in the world" online from world-class universities, enhance student learning outcomes and experience, and encourage independent learning. They identified Coursera for Campus as "one of the best [online content providers]in the market."

Process

Learning outcomes are at the heart of the Group's programs, which are meticulously designed by subject matter experts and faculty members. After faculty members were provided with a list of the most relevant Coursera courses, they used learning outcomes as guides to map content to BAC courses.

Faculty members assign students either entire or partial Coursera courses as a supplement to the Group's courses and act as "reinforcement learning" for students. As content on Coursera is blended into individual courses, faculty members generally use only "a fraction of [the Coursera assessment in] their overall assessment of the course." The exact percentage is the decision of individual faculty members and lecturers. Some faculty members choose to include content on Coursera in the final assessment for the course, although again, this is at their discretion.

When students are asked to take entire Coursera courses as part of a course offered by the group, they are encouraged to complete the graded assessments if they would like to obtain a Coursera certificate. Dr. Gary Tan found that since using content on Coursera through their courses, "students are more self-motivated...to take other courses" outside of those prescribed.

Group of private institutions
Over 5,000 students
www.bac.edu.my

University Leaders Interviewed:

- **Dr. Gary Tan**
  Head, School of Business

- **Gayathri Mageswaran**
  Head, School of Digital Transformation

Since using content on Coursera through their courses, "students are more self-motivated... to take other courses" outside of those prescribed.

Increasing Faculty Member Engagement with Online Education

Despite some hesitation to adopt Coursera for Campus, some universities found that faculty members change their minds once they try or observe the incorporation of content on Coursera into for-credit offerings in practice. For example, Prof. Rodney Reed, Deputy Vice Chancellor of Academic and Student Affairs at Africa Nazarene University (ANU), said the university had given faculty members complete discretion over whether they used content on Coursera in their courses, and in the first semester working with Coursera for Campus, many had opted not to. "However," he added, "now in the second semester, student interest in the Coursera for Campus initiative has been so strong that the interest of many faculty is increasing to the extent that we are now having to allocate carefully the licenses we have."

Blended learning use case

Africa Nazarene University, Kenya
Delivering blended learning for cutting-edge skills development

Goals
During the COVID-19 pandemic, Africa Nazarene University (ANU) sought assistance to continue helping students develop cutting-edge skills in a 100% online environment. Additionally, they were looking for a way to "change...attitudes and outlooks regarding online education."

Process
After deciding to partner with Coursera for Campus to drive skills development, ANU worked with Coursera to match courses to their curriculum. They provided the list of matched courses as well as Coursera licenses to their faculty members, who had complete discretion as to whether they would incorporate content on Coursera into their courses or not. This approach was conscious, as they wanted to let faculty members "ease into" using Coursera for Campus.

Faculty members who blend content on Coursera into their courses can use Coursera assessments for up to 50% of the continuous assessment grade for the course. Beyond this, there are no other regulations regarding assessment that faculty members are required to follow.

"What begins here, transforms the world"
Private institution
Established 1994
Over 4,000 students
www.anu.ac.ke

University Leaders Interviewed:

- **Prof. Rodney Reed**
  Deputy Vice Chancellor, Academic and Student Affairs

- **Beth Wokabi**
  Director, Center for Academic Excellence

ANU was looking for a way to "change attitudes and outlooks regarding online education."

Providing Access to Global Content

Universities are able to provide their students and faculty members with access to content from companies and universities from around the world by incorporating content on Coursera into their for-credit offerings. This "global exposure" is important for students today and helps them develop broader perspectives and enhance their "global citizenship skills."

Standalone use case
International IT University, Kazakhstan
Innovating with online global education

Goals

The International IT University (IITU) has set a goal of making 30% of their content digital. Additionally, it would like to expose students to courses in English from different areas to give them a more "global experience." They decided to partner with Coursera for Campus in order to "offer modern and demanded courses in [the] English language" from "top global institutions and universities."

Process

IITU offers bachelor's degree program students entire Coursera courses for credit toward their degree. After consulting all faculties, university administration, as well as student government; gaining approval from the university board; and informing the Ministry of Education; IITU let each faculty map content on Coursera to their bachelor's degree programs based on their course syllabi. Depending on the IITU course, students are required to take one or more courses on Coursera to receive credit from the university.

Faculty members whose courses are replaced by courses on Coursera are reassigned as mentors for students. Mentors monitor the progress of the students and develop the assessment for the Coursera course(s) required for an IITU course credit.

Students taking courses on Coursera for IITU credit complete Coursera's continuous assessments and are given final summative exams developed by the student mentors. 40% of the overall grade for the IITU credits is based on the final exam, and 60% on Coursera assessments. Of this 60%, half (30% of the total grade) consists of the final grade that students receive from Coursera for the course. The remaining 30% is based on Coursera's continuous assessments. However, in order to more accurately measure student performance and achieve a more standard grade distribution, IITU decided to count only the first attempts at continuous assessments made by students, as these assessments can be taken multiple times in the course.

**Public institution
Established 2009
2,158 students
https://iitu.edu.kz**

**University Leaders
Interviewed:**

• **Dr. Yevgeniya Daineko**
   Vice-Rector, Science and International Affairs

• **Dr. Timur F. Umarov**
   Vice-Rector, Academic Affairs

IITU would like to expose students to courses in English from different areas to give them a more "global experience."

Universidad Peruana de Ciencias Aplicadas, Peru

A staged approach to adopting online learning

Goals

To provide their students with a better learning experience and "guarantee… that [their] profiles will satisfy market needs," the Universidad Peruana de Ciencias Aplicadas (UPC) had already delivered over 20% of their credit hours online using their own content. However, they began looking for better ways to meet their goals after the start of the COVID-19 pandemic. As Dr. Edward Roekaert explained, "we have to find ways in which we take the very best that face-to-face education has to offer, but we also need to be able to leverage some of the benefits of distance learning that we have discovered through this pandemic."

In order to satisfy their students' demands for more flexible and adaptable education, they decided to work with Coursera for Campus, which "provide[s] digital content that has been designed by world-class institutions and organizations [which] provides added value to students." Compared to creating their own digital content, which requires significant investment to "keep it fresh," Coursera for Campus represents a great value proposition for UPC.

Process

A small team worked together throughout the process, planning the incorporation of content on Coursera in three main stages. Stage one, which is being tested in the semester beginning March 2021, entails offering standalone courses on Coursera to students for elective course credits. There are two types of electives being offered:

Specialization electives: These are based on Specializations on Coursera, such as the Python for Everybody Specialization, which includes multiple courses and a hands-on project. Students earn a certification for each course as well as the overall Specialization on Coursera, and are also provided separate assessments by faculty members.

"Portfolio" electives: Each portfolio is based on a broad field such as arts and humanities, and includes around 30 Coursera courses curated by UPC, each requiring about 15–20 hours of students' time. Students must complete at least three courses from the portfolio to pass the UPC elective credit. In these courses students are also accompanied by a faculty member who provides additional assessments.

Stage two entails embedding content on Coursera into UPC mandatory core courses. The university has identified over 120 Coursera courses that will provide content in the 50 different undergraduate degrees they offer. In these courses, faculty members will be teaching either face-to-face or synchronously online, but the students will have an autonomous portion of the course that uses content on Coursera. Stage three will involve identifying courses on Coursera that will become fully online mandatory or core courses. A faculty member will also accompany students taking these courses.

In each of the stages above, faculty members are responsible for creating assessments for students. Although faculty members have the freedom to determine how much weight to give Coursera assessments in overall course grades, they typically use continuous assessment on Coursera for around 60% of the UPC course evaluation. In stage three, assessment given by faculty members will most likely be in the form of a project that students will need to complete.

> UPC decided to work with Coursera for Campus, which "provide[s] digital content that [is] branded… because [it] has been designed by world-class institutions and organizations.

Supporting Professional Development of Faculty Members

At many of the interviewed universities, faculty members are also using content on Coursera to upgrade or develop their own knowledge and skills, primarily for use in teaching their courses.

Standalone use case
SVKM's NMIMS, India
Supplementing programs to build skills in cutting-edge technologies

**Deemed to be University
Established 2003
Over 17,000 students
www.nmims.edu**

University Leader Interviewed:

• **Dr. Sharad Mhaiskar**
  Pro Vice Chancellor

Goals

SVKM's NMIMS (NMIMS) recognizes that online education is valuable for students not just during university years, but also in industry and a professional context in general, where they will be required to upgrade their skills online, because "there is no time for delivering face-to-face." In India, the All India Council for Technical Education (AICTE) is the accrediting body for engineering and business degree programs. In 2017, they changed the structure of a "model" undergraduate degree program, bringing the total number of credits down from 170–180, to 150–160. The 20 credits that were reduced from the standard degree could still be taken by students however, to earn either an honors degree or an additional minor. These 20 credits would focus on cutting-edge technology and would be provided online.

Already in 2016, the NMIMS Academic Council passed resolutions stating that part of the newly required 150 credits of their programs should be online, and this was reinforced by the AICTE decision.

Process

At NMIMS, the 20 allowed supplemental credits are earned by completing courses on Coursera. These courses and the order in which they are taken were selected by each department and its faculty members after receiving an initial list from Coursera based on NMIMS' syllabi. These credits include 15–16 credits for cutting-edge technology courses and 4–5 for "life skills" courses; for example, "communication skills, how to prepare for an interview, how to learn online–skills that will make a graduate a better professional when they go to industry."

Over the course of their four-year degrees, students take between two and four courses on Coursera for the 20 credits and they are allowed to earn more credits if they would like. During the school year, students can complete the courses on Coursera at their own pace; however, they must finish designated courses sequenced for a semester within a maximum of four months.

To assess students' progress in the Coursera courses, NMIMS appoints one faculty member per student group, who is required to enroll in the same course in order to accompany the

students as they move through the course. Some faculty members use courses on Coursera to develop their skills for their own professional development as well as to carry out assessments.

Every 15 days, students are expected to meet or have a call with this faculty member and give them a summary of what they have learned. The faculty member also gives students a small project to assess progress, which is possible because she/he is going through the same course, and will eventually earn the same certificate. 70% of assessments for Coursera courses come from the assessments that faculty who take the course along with students create, and the other 30% is from Coursera.

Some faculty members use courses on Coursera to develop their skills for their own professional development as well.

Additional Uses of Coursera for Campus

While this publication's focus is on how universities use Coursera courses and content in their for-credit offerings, the interviewed institutions are also using Coursera for Campus in additional ways that they consider important for their students, faculty members, alumni, and more.

Alumni lifelong learning

ANU provided Coursera access to alumni for their own upskilling and reskilling. UPC also offers access to alumni (as well as faculty and staff) when students are not in session. At HTU, Coursera for Campus access is offered through the institution's "upskilling center," which provides lifelong learning opportunities to job-seeking graduates.

Faculty member reskilling and upskilling

With Coursera for Campus, faculty members are also able to learn continuously and gain cutting-edge skills related to cutting-edge technologies. At several of the interviewed universities, faculty members who act as facilitators or mentors for students taking Coursera courses are required to take the courses themselves. At NMIMS, for example, in order to engage faculty members in the process of implementing Coursera for Campus at the institution, faculty members were also required to complete Guided Projects to both update their skills and be well-positioned to assist students completing them.

Engaging students beyond required courses

Students are also encouraged to build skills and knowledge outside of their principal field of study. Nearly all of the universities interviewed mentioned the goal of developing "21st century skills" in their students. Human skills such as communication, critical thinking, and perhaps most importantly, learning how to learn, are a fundamental part of these 21st century skills as individuals will be required to upskill and reskill throughout their entire lives to remain competitive in the labor market. By giving students access to courses and projects on a multitude of subjects, universities can foster the innate drive to learn about new subjects and the capacities to do so, too. For example, HTU's Online Learning Center has made around 100 Coursera licenses available to students to use in any way they would like, and they have seen high levels of interest in these licenses. Talisis is also encouraging students to explore content on Coursera outside their field of study "to develop new and different skills from what they are currently majoring in," according to Salvador Kalifa Perez, Director Transformación Digital.

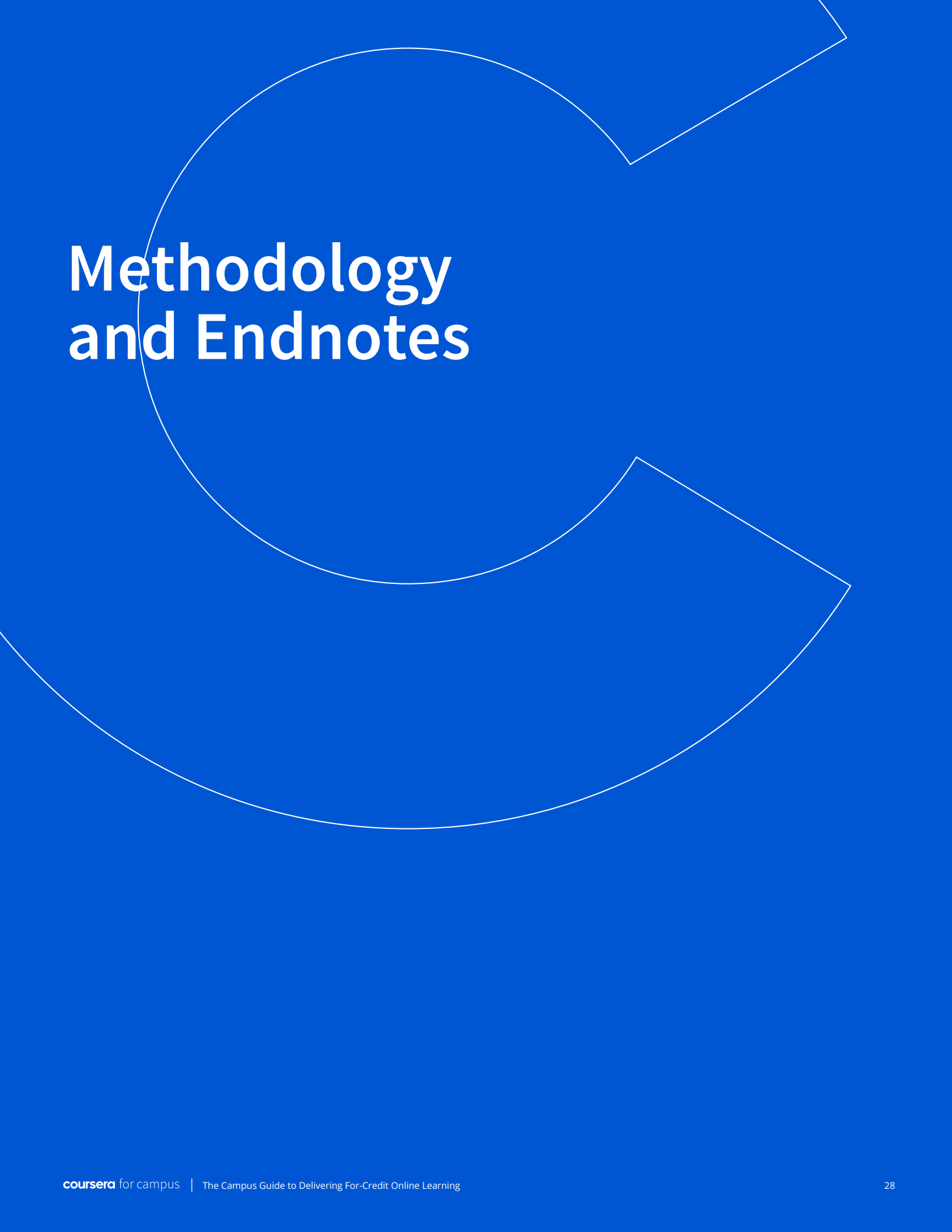### Private authoring with Coursera for Campus

ANU is using Coursera's private authoring capabilities to develop its own online courses, focusing on required courses that often have a large number of students. These courses would typically require splitting the students up into smaller groups and assigning a faculty member to each of these groups. Therefore, Coursera for Campus is beneficial in this case in terms of "economy of scale and saving some resources to apply in other places."

By giving students access to courses and projects on a multitude of subjects, universities can foster the innate drive to learn about new subjects and the capacities to do so, too.

Conclusion

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Online learning is likely to become a more important tool at the disposal of higher education institutions going forward. For universities looking to leverage online learning as a long-term resource, incorporating online content into for-credit offerings is a key strategy to consider. Thanks to the rich insights provided by the innovative universities that contributed to this publication, other institutions can confidently approach the process for delivering for-credit online learning. In doing so, they too can experience the observed outcomes included in The Campus Guide.

Methodology and Endnotes

Build a Powerful Cutting-Edge Curriculum with Coursera

Entire courses on Coursera can be incorporated into a curriculum program as seen in this example of a bachelor's degree in computer science with a specialization in artificial intelligence (AI).Coursera courses from top universities and companies worldwide can be used to help develop core skills, as well as keep students (and faculty) up-to-date in their field through cutting-edge content.

60-80% University faculty-led

20-40% coursera

B.Tech in Computer Science with AI Specialization

	Core Subjects				Emerging Skills	
Semester 1	Physics	Engineering Graphics	Calculus & Linear Algebra	Intro to Electronics *Georgia Institute of Technology*	Intro to AI	IBM
Semester 2	Chemistry	Probability & Statistics	Learn to Program *University of Toronto*	Communication	Major AI Application	Google
Semester 3	Data Communication	Data Structures & Algorithms *University of California*	Digital Electronics	Discrete Mathematics	Machine Learning	Duke UNIVERSITY
Semester 4	Computer Architecture *Princeton University*	Computer Networks	Operating Systems	Algorithm Design	Workflow of an ML Project	DeepLearning.AI
Semester 5	Database Management System	Formal Language & Automata Theory	OOP in Java *Duke University*	Software Engineering I	Intro to Deep Learning	UNIVERSITY OF MICHIGAN
Semester 6	Software Engineering II	Software & Computer Design	Elective 1	Elective 2	Neural Networks	DeepLearning.AI
Semester 7	Colloquium: Sentimental Analysis on COVID-19 Tweets using Python Guided Project				Optimization Algorithms	UNIVERSITY of WASHINGTON
Semester 8	Colloquium: Object Detection with Amazon Sagemaker Guided Project				AI Project	coursera project network

Incorporate World-Class Content with Coursera

Within a course, such as this introduction to programming with Python, content on Coursera can be incorporated as a synchronous or asynchronous supplement to regular content. Coursera Labs can additionally provide invaluable hands-on practice for students.

	In-Class Content	Content on Coursera	
Course Prerequires	**Pre-Course** • Relationship between computers and programs • Basic principles of computers • Modern computer systems	**Programming for Everybody (Getting started with Python)** *University of Michigan* → **Weeks 1 and 3**	UNIVERSITY OF MICHIGAN
Week 1 **Week 2**	**Module 1: Introduction** • Installing Python • File systems • Using the Python interpreter • Introduction to binary computation • Input / Output		
Week 3 **Week 4**	**Module 2: Data types and control structures** • Operators (unary, arithmetic, etc.) • Data types, variables, expressions, and statements • Assignment statements • Strings and string operations • Control structures: loops and decision	**Learn to Program: The Fundamentals** *University of Toronto* → **Weeks 1 and 4**	UNIVERSITY OF TORONTO
Week 5 **Week 6**	**Module 3: Modularization and classes** • Standard modules • Packages • Defining classes • Defining functions • Functions and arguments (signature)		
Week 7 **Week 8**	**Module 4: Exceptions and data structures** • Data structures (array, list, dictionary) • Error processing • Exception raising and handling	**Python Data Structures** *University of Michigan* → **Weeks 4 and 5**	UNIVERSITY OF MICHIGAN
Week 9 **Week 10**	**Module 5: Object oriented design** • Programming types • Object Oriented Programming (OOP) • Object Oriented Design • Inheritance and polymorphism		
Week 11	**Module 6: Python in practice**	**Python 101: Develop Your First Python Program** *Coursera Guided Project*	coursera project network
Week 12	**Final exam**		

Methodology

Information presented in this publication is the result of 11 interviews with representatives from 13 institutions from around the world, conducted between February 22, 2021, and March 12, 2021. Data collected from interviews was analyzed and synthesized by the author, who claims full responsibility for its use in this publication.

A full list of interviewees, organized alphabetically by institution, follows.

Africa Nazarene University, Kenya

Prof. Rodney Reed, Deputy Vice Chancellor, Academic and Student Affairs

Beth Wokabi, Director, Center for Academic Excellence

Al Hussein Technical University, Jordan

Dr. Nayef Abu-Ageel, Director, Online Learning Center

BAC Education, Malaysia

Dr. Gary Tan, Head, School of Business

Gayathri Mageswaran, Head, School of Digital Transformation

Budapest Metropolitan University, Hungary

István Vilmos Kovács, Vice Rector for International Relations

Prof. Dr. Bálint Bachmann, DLA Rector, University Professor

Ágnes Tóth, President, CEO

International IT University, Kazakhstan

Dr. Yevgeniya Daineko, Vice-Rector, Science and International Affairs

Dr. Timur F. Umarov, Vice-Rector, Academic Affairs

Manipal Academy of Higher Education Dubai, United Arab Emirates

Dr. Bhakti More, Associate Professor, School of Design and Architecture

Dr. Sangeetha Vinod, Deputy Registrar, School of Business, MAHE Dubai

Manipal Global Education Services

Adarsh Lathika, Head, Strategic Partnerships and Alliances

Mapúa University, The Philippines

Ericson D. Dimaunahan, Outcomes-Based Education Director, Center for Teaching and Learning

Bonifacio T. Doma, Jr., PhD, Executive Vice President, Academic Affairs

SVKM's NMIMS, India

Dr. Sharad Mhaiskar, Pro Vice Chancellor

Talisis, Mexico

Salvador Kalifa Perez, Director Transformación Digital

T.A. Pai Management Institute

Jeevan J. Arakal, Associate Professor, Chairperson – PGDM and Co-Chair Executive Education Programmes and VEL

Universidad de Ibagué, Colombia

Dr. Alfonso Reyes Alvarado, President

Dr. Andrés Alberto García León, Professor, Industrial Engineering

Juan José Torrente Rocha, MSc, Professor and Director, Department of Psychology

Universidad Peruana de Ciencias Aplicadas, Peru

Dr. Edward Roekaert Embrechts, Rector

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coursera for campus