



## Equipping faculty to engage learners:

How skill insights support career-relevant instruction

Written by **Remie Verougstraete**

Designed by **Laurel Gieselmann**



# Table of Contents

<i>Introduction</i>	2
<hr/>	
<b><i>Part One: The Call for Career-Relevant Instruction</i></b>	
<hr/>	
<i>The role of faculty</i>	4
<hr/>	
<i>Of skills and scholars: why faculty should embrace career-relevant education</i>	5
<hr/>	
<i>Addressing philosophical objections to the focus on career-relevance</i>	6
<hr/>	
<i>Addressing practical concerns</i>	7
<hr/>	
<i>Highlighting the benefits</i>	7
<hr/>	
<i>Shaping the future</i>	8
<hr/>	
<b><i>Part Two: Strategic Skill Insights to Equip Faculty</i></b>	
<hr/>	
<i>1) The work-relevant skills in their course descriptions and syllabi</i>	9
<hr/>	
<i>2) How the skills they teach relate to market demand</i>	11
<hr/>	
<i>3) Growth trends for relevant skills</i>	13
<hr/>	
<i>Putting insight into action</i>	15
<hr/>	
<i>Conclusion</i>	16
<hr/>	



## INTRODUCTION

# “How might we better prepare faculty and students for success in future work and learning?”

» That question concludes Dr. Steven C. Taylor’s preface to “[Beyond Classroom Borders](#),” a white paper published in 2020 by the American Council on Education (ACE), co-authored by Taylor and Catherine Haras.

It’s a crucial question, and one that has only become more urgent over the past year. The answer advanced by the authors is summarized neatly in the paper’s subtitle: “Linking learning and work through career-relevant instruction.”

As they flesh out what this looks like in practice, Taylor and Haras emphasize the essential but often-neglected role that faculty should play in helping learners prepare for life (and work) beyond the classroom. It’s an emphasis we borrow and build upon in this paper while pivoting to focus on how institutions can leverage skill-based labor market insights to equip faculty for success in this critical area.

After all, while faculty possess deep subject matter expertise in their academic discipline, that is not the same as understanding how this knowledge applies to the professional aspirations and goals that motivate most of their students. For example, faculty may not be able to definitively answer questions like: *What career pathways are most relevant for my students? Which job roles use the skills students learn in my course? What employers are hiring for those roles?* Without clarity in these areas, effective career-relevant instruction will be hard to come by.

To help faculty answer these questions, we propose a collaborative approach that uses work-relevant skills to connect what is taught in the classroom to what is sought in the marketplace. Obtaining that insight efficiently, and leveraging it effectively, is the subject of this paper.



# We address the topic in two parts: “Why?” and “How?”

» In part one, we explain **why** faculty should embrace the move towards career-relevance generally, and a skillified curriculum in particular. This includes addressing possible objections or misunderstandings, while highlighting the tangible benefits (for faculty and learners alike) of highlighting work-relevant skills in course content.

» In part two, we’ll show **how** skillifying curriculum illuminates the connection between course content and career relevance. In particular, we highlight three specific skill-based insights and suggest ways that faculty can use this information to design and deliver work-relevant instruction.

---

By the end, you’ll have a clear understanding of the tools and strategies that your institution can use to help faculty close the gap between learning and work — and ultimately, increase student success in the classroom, and beyond.



## PART ONE

# The call for career-relevant instruction

» The call for post-secondary educators to close the gap between classroom and career comes from multiple voices.

On the employer side, there's the much-discussed "skills gap" (that disconnect between the skills they need to hire and the skills job-seekers, including new grads, have to offer). This gap has very real costs in terms of lost productivity and increased expenses to find, or train, qualified workers. Since these businesses are often the lifeblood of a regional economy (providing products or services to buy, and wages so that residents can buy them), their ability to recruit skilled graduates and operate efficiently concerns the broader community – especially the post-secondary institutions charged with preparing students to live and work in that community.

And it's not just employers. Students themselves have made clear that they place a premium on educational pathways that give them onramps into the workplace. This is seen in recent surveys that demonstrate the strong correlation between student satisfaction and the career relevance of their education. Yet, only 7% of learners say their schools are "excellent" at connecting education to meaningful

careers. A more encouraging 28% rate their institution as "Very Good." But a 65% majority of students say their institution is "Fair" or worse in this critical area.

## THE ROLE OF FACULTY

» What can be done? Certainly, career services teams have a vital role to play. But, faculty themselves have a unique ability (and responsibility) to help learners see the work-relevance of their course content.

After all, while career services may be overlooked and underutilized, professors are harder to avoid. The work they do (shaping curriculum, delivering instruction, and often providing highly influential mentorship and guidance) is at the very center of the college experience. Indeed, the sheer amount of time they spend with students gives them a unique advantage in this regard.

As Taylor and Haras point out, "students are likely to spend more time with faculty than with academic support professionals on campus, thus giving faculty the most influence over a student's trajectory during, and post-college." - Beyond Classroom Borders, p. 3

Institutions should certainly look for ways to funnel students toward resources like career services. But nothing quite takes the place of engaged and informed faculty who embed those career connections directly into the classroom experience.



## THE ROLE OF SKILLS

» Before going further, it's important to note the indispensable part that work-relevant skills play in making the abstract idea of “work-relevant education” into a concrete reality. This is owing to skills' unique role as a common language used by job-seekers, employers, and increasingly, educators. Because of this, the foundational concept of this white paper is the idea of skillifying

curriculum by translating academic offerings into the shared language of work-relevant skills.

We've written extensively about the applications and benefits of skillifying curriculum in our ebook, “Skills Required,” and refer you there for more in-depth exploration. At present, we will focus specifically on how skillifying curriculum unlocks actionable insight that helps faculty engage learners.

## OF SKILLS AND SCHOLARS: WHY FACULTY SHOULD EMBRACE CAREER-RELEVANT EDUCATION

» Some faculty already embrace the idea of emphasizing work-relevant skills in the classroom. For example, the American Psychological Association website features resources from The Skillful Psychology Student Working Group – a team of nine current and former professors committed to helping psychology students apply their skills outside the academy. And this past year, faculty at the University of British Columbia led efforts to create “rich transcripts” that articulate specific skills in addition to course titles and summary statistics on completed assignments.

At the same time, some faculty members may have a number of

(understandable) concerns about what work-integrated learning means for them, and whether it will add to their already-full plate of responsibilities. At best it may look like “scope creep” and a distraction from their primary calling as educators. At worst, it may seem to undermine the true nature and purpose of higher education.

To build consensus and secure faculty buy-in, administration and academic leaders should 1) address both philosophical and practical concerns directly and 2) highlight the benefits of career-relevant instruction for faculty.



## ADDRESSING PHILOSOPHICAL OBJECTIONS TO THE FOCUS ON CAREER-RELEVANCE

» As noted above, some faculty may feel that an overemphasis on skills and work-relevance undermines or sells short the true purpose of higher education. Depending on how (or whether) career preparation factors into your institution's mission statement, this perceived tension may be more or less acute.

This makes it important to clarify that emphasizing career relevance isn't about reducing education to mere skills transmission or job training. Rather, it is about enriching the educational experience by helping students make more connections between course content and the world of work that most of them will enter post-college.

Taylor and Haras touch on this point as well. Their observations are worth quoting at length:

"This continuing call for greater alignment with career relevancy has been interpreted by many in the academy as a shift away from the liberal arts to vocational and technical education, and thus a reductive view of the rich possibilities of college. The assumption here is that market forces undermine the university's knowledge function. However, market forces are not denying that higher education prepares individuals for success outside of the classroom, rather, they are pushing for greater contextualization of classroom learning to nonacademic settings that build one's repertoire of knowledge, skills, and attitudes to be successful and engaged workers and learners."  
- Beyond Classroom Borders, p. 1

In a [recent opinion piece for Inside Higher Ed](#), Dr. Steven Mintz of UT-Austin sheds light on the same issue from the student perspective:

"We're told again and again that the main reason that students go to college is to get a good job. But look closer at UCLA's 2019 Higher Education Research Institute survey and you will see that while 84 percent went to college for workforce reasons, 75 percent said that they were seeking a general education and an appreciation of ideas, and 50 percent reported hoping to become a more cultured person.

I see no reason not to give students what they want: a leg up economically but also a truly transformative educational experience."

Understood rightly, career-relevant instruction is about enabling this both/and approach ([what UMBC president Dr. Freeman Hrabowski calls \*the genius of the "and"\*](#)). It's an approach that empowers institutions, and faculty in particular, to educate students liberally while also equipping learners with the technical skills they need to secure gainful employment and contribute to their community's economic prosperity.



## ADDRESSING PRACTICAL CONCERNS

» On a more practical level, it's good to ensure (both in reality and perception) that faculty are not expected to suddenly become part-time institutional researchers or career advisors in addition to their teaching, mentoring, and research load. Achieving work-relevant education is a team effort. As Taylor and Haras point out, "there is a collaborative approach that leverages the strengths and knowledge of faculty and student success professionals to integrate career exploration and planning into students' classroom experience."  
- Beyond Classroom Borders, Preface

While the details will vary based on institution size, budget, and resources, the general idea is that central departments (like IR, Center for Teaching and Learning, etc.) could proactively provide faculty with relevant labor market data, specific to their discipline or course (see part two of this white paper for more on how to do this). At that point, it would be the role of faculty to ask questions of the data, and determine where and how this information could inform course design or instructional practice.

Even for the teams tasked with providing these insights to faculty, the administrative lift need not be prohibitive. We'll get into the details in part two, but for now, it's worth noting that the technology now exists to automate much of the work involved in surfacing work-relevant skills taught in academic courses, as well as the

more advanced task of understanding how skills taught in a course relate to broader labor market conditions.

Once skill insights are generated, some or all of the data can be presented to faculty in a way that enables them to assess how it might inform changes to curriculum, what skills they emphasize and cultivate through high-impact practices, or simply how to more explicitly call out career-relevant content in lectures and assigned readings.

Ultimately, faculty shouldn't perceive (or experience) the shift towards career-relevance as a distraction from their central task. With the right tools and support, it should instead enhance the critical work they already do.

## HIGHLIGHTING THE BENEFITS

» Besides responding to concerns, administration should also make the positive case for skillification by highlighting the significant benefits it entails for professors and their students.

Like we mentioned in the introduction, survey data demonstrates a close link between the work-relevance of an educational experience and students' satisfaction with that education. For institutions focused on equity, it's important to note that studies have also shown this connection to be especially significant for low-income learners.



As Taylor and Haras point out:

“The literature on students in secondary education settings confirms, if not anticipates, the importance of career relevance in teaching practice, particularly for low-income students—and suggests that career planning has a substantial effect on the ultimate value students place on school (Rose and Akos 2014). Studies conducted by Destin and Oyersman (2010) as cited in Rose and Akos (2014) confirm that when students make real connections between their current education and realistic but hopeful futures, their level of academic effort increases.” - Beyond Classroom Borders, page 10

Furthermore, this boost to student engagement can trigger a positive feedback loop. As students find more value in their courses, they have less reason to stop out, boosting retention. As more students complete their (work-aligned, skill-enriched) program of study, they can enter the workforce with a confident understanding of how their educational experiences translate to the workplace. These successful employment outcomes become a powerful tool for student advising, helping other students plan, prepare for, and navigate their college-to-career pathway. And, at a time when education consumers are increasingly ROI-conscious, they can also be a powerful tool for attracting and enrolling prospective students.

Students get value from their education. Institutions get strong enrollment and retention. Everybody wins.

## SHAPING THE FUTURE

» Faculty play a prominent role in students' lives — one that often transcends the mere transmission of discipline-specific knowledge. Whether faculty welcome the role or not, students look to them not just for knowledge, but also guidance regarding how they can apply that knowledge beyond campus. When faculty embrace this role with the help of relevant job-market insights (which will be our focus in part two), they can have a dramatic effect on the current experience and future trajectory of their students.

To quote once more from Taylor and Haras:

“Because of the outsized influence that faculty have as role models, they are still in the best position to help students explore values, interests, skills, and future goals through relevant instructional experiences. These experiences are powerful; they can help inform future decisions students make about next-level learning and careers.” - Beyond Classroom Borders, page 9



## PART TWO

# Strategic skill insights to equip faculty

» As we saw in part one, there are compelling reasons for faculty to embrace and prioritize career-relevant instruction. Closing the gap between learning and work can lead to increased student engagement and, in turn, greater student success in the classroom and beyond. As a result, programs attract more students and alumni are more likely to say their education was worth the cost.

In part two, we'll focus on the place of skill-based labor market insights for helping faculty illuminate connections between what they teach and what the job market values. You can think of this section as “applied skillification.” In particular, we suggest three specific data points that institutions can share with faculty to help them design and deliver work-relevant instruction.

### 1) THE WORK-RELEVANT SKILLS IN THEIR COURSE DESCRIPTIONS AND SYLLABI

» It may seem ridiculous to suggest you can support faculty with insight into their own course documents (which they probably wrote). But

consider that many faculty members are career academics. The language of the labor market is not their native tongue. Consequently, a little data goes a long way in helping them validate the career-relevance of what they're teaching and ensuring that relevance is accurately reflected in their course descriptions and syllabi.

To give faculty a running start on this analysis, institutions can compare the language used in curriculum documents with the language used by employers and job-seekers in millions of online job postings and professional profiles. While that may sound like a lot of work (the kind of administrative burden we advocated *not* laying on faculty in section one), tools like Skillabi make it easy to do this comparison quickly, easily, and at scale.

For example, as Director of Institutional Research and Assessment for Texas A&M University—Central Texas, Paul Turcotte recently used Skillabi to create “marketable skill” resources for faculty. He shared his observations of the process:

“It's a great way to get an objective, outside perspective of the skills that are being presented in your syllabus. It does a good job bringing forward that list of skills that are actually articulated in those documents, and then connecting them to the overall program structure.”



**Basic AutoCad** ← Course title Edit  
 DET 125 / Course / 4 Credits

**Description** ← Course description  
 This course begins with the basics and gives students hands-on experience using personal computers to create engineering drawings with AutoCAD software. The student will be required to complete a number of assigned projects on the system. Topics include: basic components of a CAD system, an overview of... Show All

**Skills 31** ← Work-relevant skills surfaced from description

- Engineering Drawings
- Adobe InDesign
- Microsoft Windows
- Creo Elements/Pro (Computer-Aided Design Software)
- Computer Numerical Control (CNC)
- Dimensioning
- Corrective And Preventive Action (CAPA)
- Rendering
- Civil Engineering
- Elementary Algebra
- Drawing
- Geographic Information Systems
- Autodesk Revit
- Show All

**Groups 0**  
 Not associated with any groups

Skillabi surfaces the work-relevant skills in course descriptions and syllabi.

» This “objective perspective” supports faculty in at least two ways:

- 1) It validates the job-relevant skill terms already present in course documents. This also lays the groundwork for even more valuable insights regarding employer demand for those skills (more on this, below).
- 2) It identifies where skills are absent from curriculum or are described in ways that don’t reflect the terminology used in employer job postings.

These data points should spark conversation among faculty and academic leadership around the skills that are taught, the skills that are not, and what changes, if any, should be made to curriculum or course descriptions. More importantly, it is the first step towards equipping faculty to surface these career-relevant connections to learners in their classroom.



## 2) HOW THE SKILLS THEY TEACH RELATE TO MARKET DEMAND

» Identifying skill terms is a good start, but the real insight comes from seeing where those same skills surface in the labor market. This is, after all, one of the main benefits of skillifying curriculum in the first place: achieving a direct, apples-to-apples comparison between your academic programs and the world of work.

Keeping in mind that the objective here is equipping faculty to engage students, it makes sense to focus on the data points most relevant for the future job-seekers sitting in your faculty's classrooms and lecture halls.

• ***Which employers in your region are posting jobs that ask for the skills you teach?***

• ***What other skills appear in those postings?***

• ***What are the most common job titles associated with these skills?***

• ***What kind of salary do those job postings advertise?***

Anchoring answers to these questions in the specific skills taught by your institution (the ones surfaced from course documents, as described earlier) offers key advantages to faculty who want to highlight the full relevance and job market value of the courses they teach.

## UNIQUE ADVANTAGES OF A SKILL-BASED APPROACH

» When equipping faculty to answer students' questions about career relevance, there are distinct advantages to using a skill-based approach. For example, comparing skills to skills (the ones you teach vs. the ones employers ask for) can help to overcome the limitations of government taxonomies and crosswalks that pre-determine which occupations are "relevant" for graduates of specific programs.

**And don't get us wrong:** CIP codes, SOC codes, and the crosswalks that connect them are helpful. They continue to play an important part in program management and career advising by providing a standardized structure for analyzing how higher education relates to the labor market. Skills, on the other hand, offer a less structured but more nuanced view of how what students do in class relates to employers' needs.



For example, a professor teaching “Introduction to Philosophy” as part of a General Education program might emphasize to students the broad applicability of a skill like “Critical Thinking,” which is sought after in both healthcare and business roles. What’s more, faculty can back up these

claims with concrete examples of the employers, job titles, and even wages that illustrate this demand. Suddenly, nursing majors and accounting majors alike can see the surprising connections between a philosophy course, and their professional goals.

The screenshot shows a Skillabi interface for the skill "Critical Thinking". At the top, it displays "1097K Job Postings" and "\$62K". Below this, there are three main sections: "Related Job Titles" (Unclassified, Registered Nurses, Medical Surgical Registered Nurses), "Related Companies" (Focus Staff Services LP, Intuit Inc., Lrs Healthcare Group), and "Related Occupations" (Registered Nurses, Accountants and Auditors, Marketing Managers). A blue box highlights "Critical Thinking" and "Related Occupations". A blue arrow points from the text "Taught skill" to the "Critical Thinking" header. Below these sections are "Related Skills" (Active Listening, Adaptability, Complex Problem Solving, Decisiveness, Development Planning, Empathy, Healing, Intellectual Curiosity, Tax Preparation) and "Where This Skill Is Taught".

Skillabi serves up job market insights specific to the skills taught in your institution’s courses.

After all, as we’ve seen in our research on Degrees at Work, academic majors are often only loosely connected with future career paths. What’s more determinative is how individuals apply their skills and knowledge to solve the real-world problems they and their

employers face. The professional possibilities are usually broader than students realize, and this knowledge can help to encourage and shape their academic journey. Skill insights equip faculty to know, and show, these connections.



### 3) GROWTH TRENDS FOR RELEVANT SKILLS

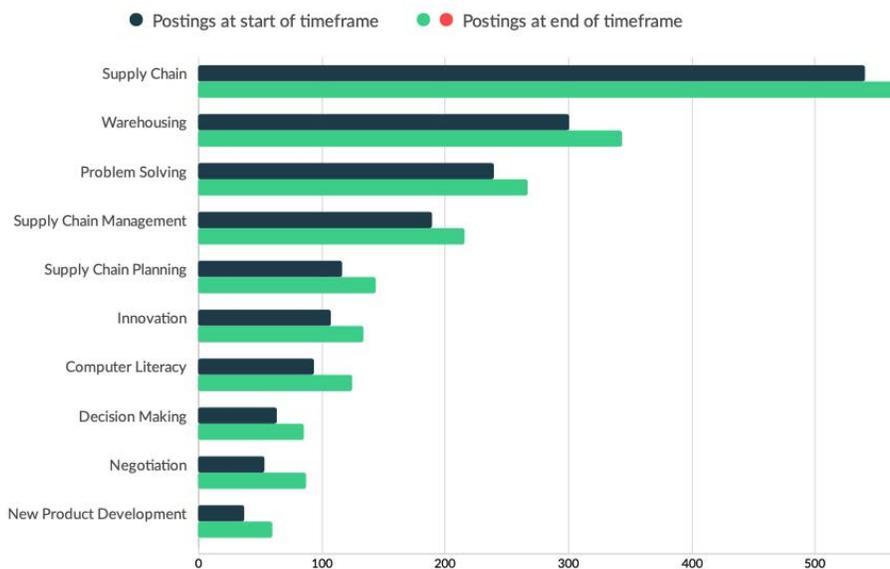
» This last point is all about adding context and perspective to the detailed insights derived from points one and two. We do this by zooming out to consider change over time.

Knowing the historical trajectory of demand for certain skills, while not a crystal ball, can help faculty (and students) anticipate shifts in the job market. As the great Gretzky would say, it helps them “skate to where the puck is going.”

For example, if a particular skill is prevalent in postings but is less common now than it was 12 months

ago, it’s likely still worth teaching... though you might want to monitor what other skills or technologies could be emerging to replace (or complement) it.

Likewise, if a skill is rare in job postings but shows noticeable growth over the past year, you don’t necessarily need to drop everything and overhaul your curriculum to specialize in it. But faculty might consider researching further, talking to employer partners about it, and otherwise laying the groundwork for potential changes in the future.



Analyst shows the top skills by percentage growth for job postings in a particular region. Shown here: Skills in job postings for Logisticians and Project Management Specialists in Texas from Mar 2020 – Feb 2021.



Of course, trends don't have to be positive or negative to be meaningful. There's a lot to be said for durable demand. If a skill's prevalence in job postings persists over time, it can give faculty and students confidence that the skill is not a mere flash in the pan.

For example, [UW Tacoma's Professional Development Center](#) used Emsi data to demonstrate professional opportunities for graduates of their [Practical Risk Management](#) certificate

program. In an [information session for prospective learners](#), program development manager Saralyn Smith shared her findings that the state of Washington saw over 40,000 unique job postings since 2016 (an average of 10K per year) that asked for "risk management" skills (excluding specialized cybersecurity roles, which she filtered out to ensure the postings data was relevant for program completers).



Watch a clip of UW Tacoma's information session highlighting demand for risk management skills.

While this presentation was for prospective learners, it's easy to see how similar data could be leveraged to engage current students as well.

As a brief aside, note that skills data is also a great launching pad for more comprehensive labor market research. For example, using [Analyst](#), you can start by searching job postings for a

specific skill term, but then connect that research back to occupations, industries, or related licenses and qualifications (as in the UW Tacoma example). This broader analysis is beyond the scope of our article, but it's worth pointing out that for faculty who want to see how deep the rabbit hole goes...it goes pretty deep.



# Putting insight into action

» Once you've got the data in hand, it's time to collaborate with faculty on how to best leverage these insights. We've already touched on a few ways to do this, but here are several more suggestions for how faculty can put the data to work:

**Make taught skills explicit** in course documents and course descriptions. This formalizes and reinforces the connection between coursework and career goals. (It also lays the groundwork for enriching transcripts with skills data, if your institution pursues that kind of initiative in the future).

**Design assignments** that help learners develop and demonstrate high-demand skills that are associated with high-wage jobs.

**Incorporate work-relevant skills** into grading rubrics to help learners consciously develop and assess their proficiency in key areas.

**Talk to industry contacts (or establish new ones)** to verify trends. Job postings data can tell us that a skill is less prevalent than it was two years ago, but it can't tell us why. This is where relationships with regional employers are invaluable. (Many of the most successful programs we've seen at both community colleges and universities involve close collaboration with industry partners).

**Show employer partners** how the skills you teach align with their needs. Explore partnership opportunities (including internships or co-op experiences) that could help fill skill gaps.

**Call out career connections** in lectures. Sharing a few example job titles or employers at the start of class can be a simple, low-effort way to alert students to the career relevance and labor market value of topics about to be covered.



## CONCLUSION

# Sharing data for maximum impact

» As we explained in part one, labor market data may sound like the exclusive purview of institutional research or career services departments, but there are good reasons for circulating these insights to those who have the most face-time, and often the most influence, with learners: the faculty who instruct them.

In other words, delivering career relevant education is a team sport. When institutions proactively provide relevant data, faculty (and ultimately students) are set up for greater success in effectively integrating learning and work.

If you enjoyed this white paper, explore how skill insights can benefit your institution.

[Skillabi](#) surfaces the work-relevant skills in your course documents and shows how they align to labor market demand. [SkillsMatch](#) helps students inventory their skills and find curricular recommendations to achieve their goals. Or, read [Skills Required](#) to learn more about meeting the needs of learners and employers in a skill-based economy.

