Career readiness pathway (CR Path): How a degree in psychology answers the stakeholder's call for career ready students.

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Abstract

Both the American Association of Colleges & Universities (AAC&U) and National Association of Colleges and Employers (NACE) have outlined skills, competencies, and experiences that undergraduate students should acquire prior to graduation to become career ready and enjoy both early and sustained career success. We leverage existing work on skills learned in psychology and present the Career Readiness Pathway (CR Path), a framework that presents career readiness as achieved when students have developed career specific knowledge, skills, and abilities (CS-KSA), core competencies (general skills like the NACE eight career readiness competencies), had experiential learning opportunities to apply and master both career specific and core competencies, and benefited from career mentorship. The CR Path is applicable across disciplines, but we focus on the undergraduate psychology degree, arguing it is well designed to help students navigate the Career Readiness Pathway, provide the necessary training that employers seek, and communicate the value of their degree. We make several pedagogical, curricular, and other recommendations to use the CR Path to maximize the value of the undergraduate psychology degree in attaining career readiness.

Keywords: career readiness, experiential learning, early career success, college to career transition, KSAs and core competencies

Career readiness pathway (CR Path): How a degree in psychology answers the stakeholder's call for career ready students.

What is the value of a bachelor's degree in psychology? The popular press denigrates its worth, especially compared to degrees in STEM or more career-oriented fields (e.g., Robinson, 2025). Our argument is that psychology programs do a very good job of preparing students "for success in the workplace and lifelong career management" (NACE, 2024a) and to pursue careers in many fields (e.g., see Del Chario, 2025, regarding traditional and nontraditional careers) – in other words to be career ready. Almost every job requires interaction with another person, and the knowledge, skills, and abilities gained through the curriculum shared by most undergraduate psychology programs and endorsed by the American Psychological Association (APA, 2023). Moreover, it is increasingly important for students to focus on communicating their skills - in their three most recent job reports, NACE (2024, 2025a, 2025b) reported an increasing trend where now almost all employers responded that they at least sometimes use skills-based hiring (as opposed to relying on credentials or screening by grade point average). We argue that the psychology major can be described as providing all the components that comprise the Career Readiness Pathway (CR Path), but that as a field we need to do a better job of demonstrating it and articulating its value.

Important work has been done regarding skills learned in psychology that contribute to students' career readiness, notably Naufel et al.'s (2018) *The skillful psychology student* (SPS). SPS describes skills valued by employers that psychology students can gain including cognitive skills (e.g., analytical thinking), communication skills (e.g., oral communication), personal skills (e.g., self-regulation), and social skills (e.g.,

inclusivity). Recently, Naufel et al. (2025) examined alignment of SPS skills with the APA Guidelines for the Undergraduate Psychology Major V3.0 (American Psychological Association [APA], 2023). While Naufel et al. (2025) called for an update to SPS (e.g., putting more emphasis on resilience and adaptability which are seen as very important in work contexts), SPS continues to be useful for design of syllabi, curriculum, and pedagogy to build skills and communicate to students about them (e.g., Chew et al., 2022; Madson et al., 2025).

Career readiness training is inherent/built into the bachelor's degree: relevant knowledge is taught in the classrooms and skills are honed in practicums and research labs. The fact that Naufel et al.'s (2018) SPS was developed partly based on job ads' inclusion of psychology-specific skills demonstrates that employers value the things our students learn. But psychology faculty seem to take psychology's value for granted. Collectively we are good at teaching the skills and passing along our areas of expertise to prepare our students to embark on careers post-graduation, but we argue that the CR Path provides a way of articulating the importance, versatility, and real-world application of psychology in terms that others outside our discipline can understand, and that teaches our students how to highlight how "career ready" they are.

Our manuscript contributes uniquely to the literature on career-readiness skills by proposing a conceptual framework that organizes and communicates the career-readiness value of an undergraduate degree – and show how it can be applied in psychology – to interested stakeholders – faculty, administrators, students, and employers. The framework leverages and builds on previous work on career-readiness skills (e.g., Naufel et al., 2018) by proposing a pathway to skill development. We call this framework the Career Readiness

Pathway (CR-Path) and suggest that career readiness is achieved when students have developed career specific knowledge skills and abilities (CS-KSA), core competencies (general skills like the NACE eight career readiness competencies), had experiential learning opportunities (ELOs) to apply and master both career specific and core competencies, and benefited from career mentorship (CM). The CR-path framework moves beyond listing or aligning specific skills. It provides guidance to help students plan the steps needed to achieve career readiness, and to communicate the value of their degree to potential employers. The pathway can also guide faculty, staff, and administrators in building capacity to provide relevant experiences (e.g., through professional development). We posit that students who successfully walk the CR Path are well prepared to begin the next stage of their career.

CR Path Framework

The CR Path is a framework that is broadly applicable to college students enrolled in any undergraduate degree-seeking program in the country. Following the CR Path will result in career readiness. As suggested above, there are four pillars that support the CR Path. The first pillar is the specialized training that students receive in psychological science's knowledge domain (e.g., Naufel et al., 2018). Traditionally the broad categories of skills and competencies that we are discussing as being part of pillar one are referred to as technical skills or hard skills (Devedzic et. al., 2018). We opted for the broader termed CS-KSA to better encompass the variety of knowledge, skills, and abilities taught in psychology and to acknowledge the equal importance of core competencies (traditionally and occasionally derogatorily referred to as "soft skills") that in part constitute pillar two.

The aforementioned pillar two consists of the core competencies: general skills that are not tied to a specific field, career, program, or discipline, but necessary for transition to and early success in practically any career (Devedzic et al., 2018). The utility and efficacy of non-technical, soft skills, or core skills (Jardim et al., 2022; NACE 2022; Ritter et al., 2018) is well documented, but for the purpose of the CR Path we adopted the Career Readiness Competencies developed by the National Association of Colleges and Employers (NACE, 2022; 2024a) which distilled eight competencies needed to be career ready: Career and Self Development, Communication, Critical Thinking, Equity and Inclusion, Leadership, Professionalism, Teamwork, and Technology (see NACE, 2022 for detailed report on how the competencies were created). Indeed, the most recent APA Guidelines for the Undergraduate Psychology Major contain learning goals and outcomes that align with all eight NACE competencies (American Psychological Association [APA], 2023).

Pillar three on the CR Path is experiential learning opportunities, where students get real-world experience wielding the CS KSAs and core competencies they learn in pillars one and two in a low-stakes environment. Consequences for errors and mistakes are mitigated compared to a traditional job environment and are treated as opportunities for training and learning instead of castigation (Maertz et al., 2014). The chance to practice and perfect their CS KSAs and core competencies in ELOs leads to tangible differences for graduates who take advantage of them. A recent study found that graduates who engaged in ELOs as undergraduates experienced faster than expected career progression, had higher rates of career satisfaction, higher rates of having a mentor in the workplace, higher rates of having a network to draw upon, and an average of $15,000 (about 34%) higher salaries, compared to those that did not engage in ELOs (Kahn & Patil, 2025).

The final pillar on the CR Path is that of Career Mentorship (CM), which allows for students to see how the CS KSAs and core competencies look in "the now" from outside the comfortable but seemingly isolated confines of academia. The professional world typically progresses at a much faster pace than the world of academics and operates in a context that is in sharp contrast to an academic setting where students are only accountable to themselves. Having this connection helps reify the more abstract CS KSAs with real, current examples. Indeed, students find these type of examples nested in real world context (e.g. engaged scholarship) – and the faulty that use them – as more credible (O'Brien & Pizmony-Levy, 2016). Another benefit of CM is it provides a kind of realistic job preview, a concept from the field of Industrial/Organizational Psychology, which helps to set realistic expectations for those with little or no actual experience (Nikolaou & Georgiou, 2018; Wanous, 1973) and leads to fewer thoughts of quitting and higher job survival rates.

Theoretically, CM can promote career success through a number of pathways, including an increase in human capital – enhancing KSAs which leads to improved job performance and other career benefits (Ramaswami & Dreher, 2010). The increase in KSAs (or "knowledge transfer"; Wikström et al., 2023) may happen due to mentors providing challenging assignments, coaching mentees on how to meet role requirements, and modeling effective work behaviors (Ramaswami & Dreher, 2010). Evidence supporting a relatively small increase in KSAs has been provided in a 2008 meta-analysis (Eby et al., 2008) and in later primary research (Bello & Mansor, 2013). We are not aware of evidence for CM's effect specifically on CS KSAs relevant to the psychology major, but we believe it is likely that the existing evidence should generalize.

CR Path Brings Career Readiness to Psychology Undergraduates

The framework of the four pillars outlined in the CR Path has the potential for broad application across virtually any undergraduate degree program offered at a university. Where it has the potential for extra impact in demonstrating the value of that undergraduate program is in an area where a direct career path is not well defined, as in psychology. In this section we showcase how the CR Path can be used in psychology undergraduate programs to highlight how they can make students career ready.

CR Path Pillar One: CS KSAs in Psychology

Many KSAs taught in psychology undergraduate programs are extremely valuable to employers (Naufel et al, 2018; 2025). In a survey commissioned by the American Association of Colleges and Universities (AAC&U; Finley, 2021), executives and hiring managers identified several key KSAs cultivated through the undergraduate study of psychology as highly valuable including locating, evaluating, and using accurate and relevant information in decision making, and analyzing and interpreting data including working with numbers and statistics. Data analysis including statistical software skill has been listed twice on LinkedIn as “up and coming skills” (Anderson, 2024; Castrillon, 2025). Castrillon (2025) also lists AI literacy as the top skill, something that has certainly risen to prominence in the past year. AI is not going anywhere and is likely to impact virtually all job sectors in the near future (PricewaterhouseCoopers, 2025). The capacity to engage in complex problem solving, use critical thinking skills, and evaluate sources of information are all crucial companions of AI literacy, and could help forestall the deleterious effects of mindless AI use (see Lee et al., 2025). Happily, psychology undergraduate students cultivate

all these KSAs (Finley, 2021; also see APA, 2023 for more in-depth descriptions of KSAs and rubrics for assessment).

As psychology studies human behavior and mental processes as well as the psychological, biological, social, and cultural factors that influence that behavior (APA, 2021; 2023), including every applicable KSA from a psychology course would rapidly become unwieldy and exceed this paper's scope. We do, however, want to emphasize that psychology content in areas like persuasion, empathy, working with diverse groups, and avoiding prejudice and bias, can all act as a competitive advantage for any career path that involves working with people. We also note that additional resources are available based on Naufel et al.'s (2018) *The skillful psychology student*, including syllabus inserts and PowerPoint files that can further enumerate examples of CS KSAs.

CR Path Pillar Two: Core Competencies Cultivated in Psychology

NACE recently created and validated an assessment tool for students to use in assessing how well they had mastered each of eight competencies (NACE 2024b). Using this rubric NACE was able to provide information on the "skill gap" between how important employers found a competency, and how proficient they found recently graduated employees to be in that competency.

The three competencies rated as most important by employers also had the large skill gaps (NACE, 2023). Taking the top spot was communication, rated as important by 99.5% of employers with new employee proficiency at 55.2%, resulting in a skill gap of 44.3%. Teamwork came in second place for importance, with a rating of 96.5%. The proficiency rating was actually quite high, the second highest of the eight at 78.1%, resulting in a lower skill gap at 18.4%. Critical thinking, the third highest rated competency

in terms of importance, had a rating of 94.9% and a proficiency rating of 66.1%, a skill gap of 28.8%. In short, instructors and students must remember that efforts to teach particular competencies do not mean that the competencies have been mastered.

The skilled psychology graduate (Naufel et al., 2018) mastering the skills taught in undergraduate courses and further developed through the CR Path would address all three of these skill gaps. The same AAC&U survey referenced above (Finley, 2021) also identified the skills of communication in writing and presentations (linked to the communication competency), critical thinking and complex problem solving (linked to the critical thinking competency), and communication/working with people from different cultural backgrounds which could logically improve teamwork. The various courses and assignments used in the psychology degree allow for repeated instruction, opportunities for comprehension, consolidation, and practice of these core competencies.

CR Path Pillar Three: ELOs Abound in Psychology

Experiential Learning Opportunities remain a key component of the undergraduate degree in psychology and are highly valued by undergraduate programs, graduate programs, and employers (APA, 2023; Kahn & Patil, 2025, NACE, 2025b). While there are a variety of ELOs available to students (e.g. internships, faculty research projects, service-learning, volunteer work, etc.; see Schnobrich-Davis et al., 2025), they all serve a common purpose in the CR Path model of practicing and refining CS KSAs. Students frequently have the opportunity to work one-on-one with a mentor to receive advanced instruction, feedback, and correction so they can move the skills and competencies from the nascent, inept cognitive stage described in Fitts and Posner's (1967) three stage model of skill acquisition to the more refined associative stage where a student would integrate the skill

or competency into their personal toolkit and use it more naturally. Continued practice of those same skills and competencies over time will likely move them into the autonomous, expert stage (see Ericsson et al., 1993; Hambrick et al., 2014).

Previously we presented research on the real career benefits for students that engage in ELOs (see Kahn & Patil, 2025) but only about one in five new hires in that survey completed ELOs as undergraduates. Just because an opportunity abounds does not mean it will be fully utilized. For students to engage in something, they must be shown how it will help them accomplish their goals, and the CR Path framework can help do that. Consistent with the CR Path framework, a recent study (Schnobrich-Davis et al., 2025) examined ELOs from students' perspectives where a large part of the campus wide undergraduate sample (almost 20%) were psychology majors. Several findings support the main assertion of the third pillar of the CR Path that ELOs provide a space to practice CS KSAs and core competencies learned in pillars one and two – and from a student's perspective – are valuable to career preparation and lead to career readiness. They also said that ELOs enhanced their job prospects, helped prepare them for careers and graduate school, and improved core competencies and CS KSAs (called technical skills in this study; see Schnobrich-Davis et al., 2025 for the detailed study and complete results). Additionally, one of the most common types of ELO available to psychology majors is research experience which is considered very important for admission into graduate school (Landrum & Clark, 2005).

Pillar three is a current strength of psychology undergraduate programs, and more overtly focusing on the skill development component and articulation of skill gain by students is both following the APA guidelines and showcasing the utility of the CR Path.

CR Path Pillar Four: CM Needs More Development in Psychology Undergraduate Major

Unlike professionally oriented majors (c.f. nurses, accountants, elementary education teachers), there aren't as many clearly defined routes for psychology undergraduates which lead to mentoring in a student's target career. This makes finding a mentor challenging, particularly if the undergraduate is not planning on pursuing graduate school in psychology or similar discipline (e.g. Master of Social Work). There are not well-established pipelines to particular professions with a bachelor's degree in psychology in the same way that there are with some graduate degrees (e.g., clinical psychology). In data provided by the National Science Foundation, in 2019, 3.7 million people held a bachelor's degree in psychology (APA, 2021c). Of those, 2.1 million (about 57%) did not earn a higher degree. The most common destination for these bachelor's degree holders were positions in social work (11%) or counseling (7%); administrative (9%), management (7%), service (6%), personnel (4%), or sales and marketing (3%); and preschool or elementary teaching (5%; APA, 2021b). These commonly held positions account for only 52% of careers pursued by psychology majors with an undergraduate degree – further evidence of the broad range of careers pursued, which obfuscates clear career pathways that are well established in other disciplines (e.g., nursing or accounting).

In the absence of obvious career mentorship opportunities, the fourth pillar of the CR Path could be used to motivate students to seek out and make those connections and benefit from CM. Informal mentoring is fairly common (Janssen et al., 2016) so students can expect to have a reasonable chance of success if they seek out such a relationship. The broad range of careers that undergraduate psychology students pursue also gives many options for CM, so students could get a chance to see how the CS KSAs and core

competencies that they have upskilled in ELOs function in the workplace. Career mentorship also leads to forming social networks and networking, which leads to more job opportunities (De Weerdt et al, 2024).

Can CR Path Lead to Increased Degree Satisfaction?

Undergraduate students who have higher levels of degree satisfaction tend to have higher levels of degree performance (Milsom & Coughlin, 2017). Furthermore, higher degree satisfaction is linked to higher levels of degree persistence (Suhre et el., 2007) and higher levels of degree commitment is linked to higher rates of degree completion (Sharma & Yukhymenko-Lescroart, 2018). Could faculty use the CR Path help us reframe the psychology degree in such a way that increases degree satisfaction?

There is some initial evidence that suggests this could be the case. Referring again to the study of early career professionals, Kahn and Patil (2025) found that those employees who had engaged in ELOs as undergrads were more satisfied with their degree overall, and more likely to say that their degree was valuable to their career. Another way the CR Path might increase degree satisfaction could be in much the same way that the concepts of autonomy and significance from the Job Characteristics Model (JCM; Hackman & Oldham, 1979) increase job satisfaction (Fried & Ferris, 1987).

Concepts from the JCM (which focuses on how employees experience their work) can also be applied to how psychology majors experience the major. Under the JCM, task significance focuses on how a worker answers the question “why does my work matter?” (i.e., the impact they perceive their work to have on other people, the organization, or society as a whole; Hackman & Oldham, 1979). In similar fashion, students might consider the significance of their learning in the psychology major. Educating students on the CR

Path could be used to invest mundane but necessary tasks with an extra dose of degree significance or meaning, helping students persist until completion. It might seem annoying to practice a 30-second elevator pitch highlighting your personal strongest KSAs, or to attend the interview workshop hosted by the Psychology Club on a Thursday evening but understanding how all of those fit onto the CR Path culminating in career readiness can make these activities worth the effort.

Autonomy in the JCM is a measure of how much freedom a person has to act in making decisions and solving problems (Hackman & Oldham, 1979). Those with high levels of autonomy also had high levels of job satisfaction (Fried & Ferris, 1987). While not specifically hypothesized in the CR Path, psychology students should be reminded that in the CR Path they are permitted high autonomy in what CS KSAs they learn, how they learn and practice their core competencies, what ELOs they choose, and how they form their career mentorships and personal networks. In these specific ways, it is logical to postulate that the CR Path can lead to degree satisfaction and degree completion.

Recommendations

Communication Strategy: Here is what you are learning and why it matters.

As instructors, we are more skilled at communicating and making connections between abstract or discrete concepts than are our undergraduate students. As we do with the concepts in our courses, part of our job as instructors is to help our students see and make connections. This also applies to the world that our students live in and will be moving into post-graduation. The CR Path as a framework can help give an inherent connection from what we are teaching in our courses and how it will help our students travel the path to career readiness. Said another way, the CR Path is not a checklist, but a

flexible framework where both specific and broad skills are acquired from a variety of learning arenas, tested and honed within controlled experiential environments, and lent credibility by connecting with career mentors. It is not a “one-way” or “one-use” path but should be walked continuously until graduation (or preferably beyond). Below we make several recommendations for integrating the CR Path so that students are familiar with it and can talk to potential employers about how they have arrived at career readiness, with articulated, example-based CS KSAs and Core Competencies to demonstrate along with it. The general theme for the pedagogical recommendations is make it real, relate it to the real world, and repeat it!

Pedagogical Recommendations

Sharing the Pathway Early and Often

We have ample evidence that saying something once is insufficient for learning to occur. For novel concepts, particularly complex ideas and frameworks, multiple exposures are absolutely essential to long term retention (Bego et al, 2024; Latimeir, Peyre, & Raymus, 2021). We recommend using a simple graphic (see Figure 1 for an example) to introduce the CR Path as a framework, and then putting it on the LMS, in the syllabus, and showing it in PowerPoints. Explanation and repeated exposure should help familiarize students in psychology courses with the CR Path and its four pillars. We posit that success using the CR Path framework comes from faculty, staff, and administrators and even students understanding the framework and communicating how different components of student learning fall within it.

Key KSAs on Syllabi

As course instructors, there are many, many things that we want our students to gain from each of our classes. In our experience as educators with more than 45 years combined teaching at the university level, it can be difficult for students to clearly articulate what it is they have learned in a given class period, let alone over the course of the semester. The current APA guidelines (2023) recommend having course learning outcomes available to students. We note that syllabus inserts are available based on *The Skillful Psychology Student* (STP-CABE Joint Working Group, 2023) and these resources might serve instructors' purpose – but we also encourage instructors to use APA's (2023) learning outcomes as guides to create a few specific KSAs with language that students can mimic when communicating what it is she/he/they have learned with interested stakeholders. We suggest placing a definition of knowledge, skills, and abilities on the first page of the syllabus followed by the key KSAs for the course (see Figure 2 for an example). We recommend reminding students how these KSAs in the course are linked to the CR Path, and how they can be cultivated and solidified.

We HAVE the Experience: Experiential Learning in Action

Our final pedagogical recommendation is to remember that we as instructors have many KSAs that we have developed over years of professional experience. Earlier in the paper we discussed the many benefits for students who engage in ELOs (Kahn & Patil, 2025). We recommend sharing experiences (where relevant) in your course about your own experiential learning opportunities (including from jobs you might have held while in college), reminding students using the CR Path about the role of ELOs in their career readiness, and advertising current ELOs that are available in your departments, colleges, and universities.

In all of these pedagogical recommendations, we reiterate the importance of clearly communicating which KSAs are being taught, how they are being applied, how students are progressing in their development and practice of those KSAs and competencies in their ELOs, and how they can meaningfully communicate what they have learned and how they have learned it to any others who want to know.

Curricular and Other Recommendations

Capstone Courses and ELOs

An important way to integrate the CR Path into a major's curriculum is with a capstone course, as a final step in sharing the CR Path early and often. The American Association of Colleges and Universities recommends capstone courses as a high-impact practice (AAC&U, 2025). And within psychology, APA (2023) notes that "A well-designed capstone course may be especially effective at helping students integrate what they have learned and facilitate making meaningful connections to a variety of career paths (p. 33)." We recommend considering either implementing or modifying a capstone course that focuses significantly on career readiness.

Other high-impact practices can help to solidify the CR Path for students, including ELOs. Many institutions and departments offer such opportunities, and we noted earlier the documented benefits (e.g., Kahn & Patil, 2025; Maertz et al., 2014). We recommend considering whether curricular revisions (e.g., an internship course) can help to make clear or expand the availability of ELOs.

Professional Development in Collaboration with Administrators and Staff

Mowreader (2025) noted college faculty members' lack of comfort with discussing student career readiness – as a group, in many disciplines we feel underprepared to help

students along the CR Path. NACE (2024a) reported that many faculty surveyed said they need professional development to support students. The recommendations we have made so far focus on pedagogy and curriculum and are largely under the control of the individual faculty member. But professional development would benefit from collaboration with administrators and staff (see Gatta et al., 2024). We recommend that faculty (a) work with administrators to develop support for professional development and (b) collaborate with offices focusing on career services, experiential learning, excellence in teaching and learning, or other appropriate functions. Professional development can help faculty integrate the CR Path into the curriculum and also provide more clear advising on career readiness.

In conclusion, we argue that the CR Path framework can help students to understand and talk about their learning in ways that promote career readiness. For example, students can use NACE (2022) competencies and/or Naufel et al.'s (2018) CS KSAs on resumes and talk about how they developed those skills through ELOs in employment interviews. We also encourage further work on demonstrating that hiring managers respond to the use of using these competencies and CS KSAs

Challenges and Limitations

We acknowledge some challenges and limitations to implementation of the CR-path. Figure 1 portrays the CR-path as a straightforward sequence of steps, but reality will be different for many students. For example, ELO opportunities may be more available to students with clear career goals (easier to identify an appropriate ELO, for example), and less easy to access for students whose goals are unclear. We also acknowledge that a variety of barriers can exist for students interested in pursuing ELOs, such as the need to spend

time working for pay or transportation issues (Hora et al., 2021; Shaw & Bergson, 2022) or saying they simply don't have enough time or information about completing ELOs (Schnobrich-Davis et al., 2025). We noted earlier that career mentorship is an area that needs attention and development in the psychology major. Additionally, we noted that AI is not going anywhere and is likely to increase its impact on all job sectors in the near future (PricewaterhouseCoopers, 2025). As such AI is likely to impact career preparation in yet unknown ways that we are unable to address in this article. These are important limitations to students in pursuing the CR-path. We have made some recommendations (e.g., explaining the pathway to students through coursework including capstones, to encourage prioritizing ELOs; professional development to enable faculty to support students through the pathway). But these recommendations are not a complete solution, and we recognize the ongoing challenge.

Next Steps

The CR-path represents an important step forward regarding psychology students' career readiness, building on existing work (e.g., Naufel, 2018). We see several important next steps. First, faculty and staff can use the framework to guide curriculum and other experiences focused on building CS-KSAs. Some of our earlier recommendations are relevant here, such as faculty-staff collaboration on professional development. Future work might also draw from past literature on how *The Skillful Psychology Student* has been used for curriculum development etc. (e.g., Chew et al., 2022).

A next step for students would be to work on assessing and highlighting their skills in communications to employers NACE (2025b) highlights types of communications employers report using for skills-based information, such as interviews and skills-based

resumes and cover letters. A tentative recommendation is that students might use journaling (see Buscaglia, 2024) and existing self-assessment tools to track their progress on the CR-path and see where additional experiences might be useful (Ciarocco & Strohmetz' 2018 Employability Skills Self-Efficacy Survey could be a useful assessment tool). We also suggest that students seek out practice in drafting resumes and cover letters that highlight their skills (e.g,, Shuttlesworth & Rose, 2017), e.g., through a capstone course.

A third next step is work addressing the challenges and limitations we acknowledged earlier, for example expanding on ELOs for students with particular kinds of career goals (e.g., clinical) or without a specific career goal. Lastly, evaluation research to examine the usefulness of the CR-path. Data might help us to understand student perceptions of the framework's usefulness, e.g., the value of including KSAs in syllabi or of the extent to which various types of experience (coursework, ELOs, capstones) build CS-KSAs.

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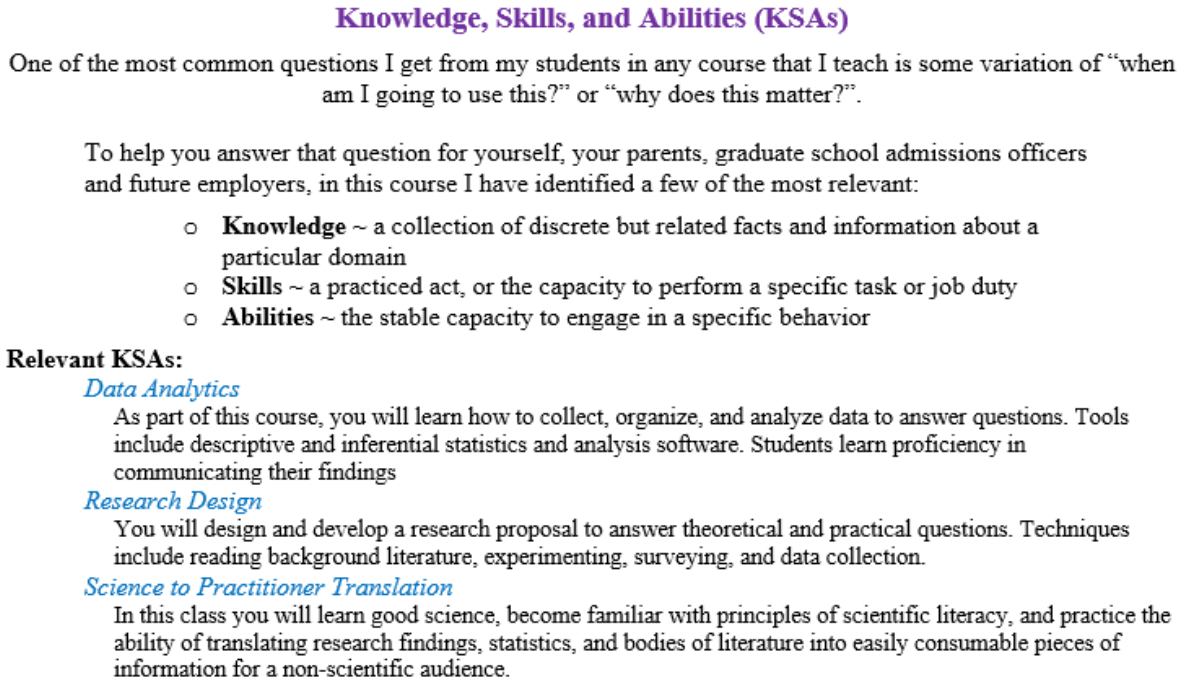
Figure 1

Sample Illustration to Introduce the CR Path.

Note: The pillars are laid out graphically to represent a path leading to Career Readiness. This is meant as an explanatory aide, not as a flowchart nor sequential model.

Figure 2

Sample Syllabus Insert for Describing Key KSAs in a Course.



Knowledge, Skills, and Abilities (KSAs)

One of the most common questions I get from my students in any course that I teach is some variation of "when am I going to use this?" or "why does this matter?".

To help you answer that question for yourself, your parents, graduate school admissions officers and future employers, in this course I have identified a few of the most relevant:

- **Knowledge** ~ a collection of discrete but related facts and information about a particular domain
- **Skills** ~ a practiced act, or the capacity to perform a specific task or job duty
- **Abilities** ~ the stable capacity to engage in a specific behavior

Relevant KSAs:

Data Analytics

As part of this course, you will learn how to collect, organize, and analyze data to answer questions. Tools include descriptive and inferential statistics and analysis software. Students learn proficiency in communicating their findings

Research Design

You will design and develop a research proposal to answer theoretical and practical questions. Techniques include reading background literature, experimenting, surveying, and data collection.

Science to Practitioner Translation

In this class you will learn good science, become familiar with principles of scientific literacy, and practice the ability of translating research findings, statistics, and bodies of literature into easily consumable pieces of information for a non-scientific audience.

Note: Definitions for knowledge, skills, and abilities come from Spector (2021)

[i] Disclosure: Microsoft (2025) Co-pilot was used to check the APA style formatting on some references and less common in-text citations in this manuscript.