

“IT WAS A SELF-TAUGHT COURSE”: THE REDESIGN OF AN UNDERGRADUATE MIS CORE COURSE

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The transition to fully asynchronous teaching during the COVID-19 pandemic created substantial challenges in engaging and satisfying students in undergraduate Management Information Systems courses. This redesign case emphasizes increasing students' engagement and hands-on experience while offering a greater instructor presence. The new version of the course exposes students to a variety of enterprise software such as SAP, Salesforce, and Tableau. In addition, the use of Slack and changing the assessment format led to an increase in student satisfaction. We analyzed student feedback before and after the redesign and found that learners significantly improved their perception of their instructor's social presence. This improvement enhanced engagement and strengthened students' preparation for the real-world experiences.

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INTRODUCTION

The dynamic field of information systems plays a crucial role in modern business education, necessitating courses that effectively engage and equip students with relevant skills. This design case describes the planning and implementation of an updated version of a junior-level college course on information systems (IS). The course, a core component of the curriculum for all business majors, introduces students to the role of information systems in supporting organizational processes through the application of technical resources. Students develop a process-oriented understanding of how organizations deploy, manage, and use information systems in global and distributed organizations, with projects covering enterprise systems, productivity tools, and professional social media.

As a core class for both Business Administration (BADM) and Business Information Systems (BSIS) programs, enrollment in BADM and BSIS programs directly determines the demand for MINS 301. In recent years, the total enrollment for MINS 301 has ranged from 300 to 400 students per semester. The number of students per section varies depending on the mode of instruction (MOI). The class size for in-person sections tends to be smaller, around 36 students per section, while for online sections, it ranges from 55 to 80 students per section. This underscores the need for a scalable course design that can adapt to fluctuations in enrollment, support



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various MOIs, and fit within various semester lengths (summer, winter, special sessions), such as 3-week, 6-week, and 8-week formats, in addition to the standard 17-week regular semester format. In Fall 2024, three faculty members, assisted by a student assistant, taught five sections of MINS 301 offered in the standard 17-week semester format, hosting a total of approximately 330 students, using a combination of online and in-person MOIs.

The course originally featured both face-to-face and online formats, enabling flexibility and diverse learning opportunities. However, the onset of the COVID-19 pandemic necessitated a shift to a fully online format, leading to notable challenges.

Before the pandemic, the course combined face-to-face lectures with asynchronous materials, offering students both live interaction and the flexibility of self-paced learning. While this hybrid approach had its advantages, the sudden shift to a fully online format prompted by pandemic-related restrictions on in-person teaching and institutional preferences for asynchronous instruction led to a noticeable drop in student engagement and satisfaction. Many students expressed feelings of disconnection and frustration, as the instructors increasingly relied on publisher-provided materials to deliver the course. With its structure centered around readings, pre-recorded lectures, and high-stakes exams (a midterm and a final), instructors struggled to maintain student interest and cultivate a sense of community within the course.

The primary instructional goals of the course redesign were to increase student engagement and enhance their sense of connectedness, all while maintaining the asynchronous format necessitated by ongoing uncertainties. We aimed to address these shortcomings through the redesign by moving away from the heavy dependence on traditional textbook materials and high-stakes testing. Instead, the course would incorporate more interactive and practical elements to better reflect current industry practices and student needs.

By shifting the focus towards hands-on experience with enterprise platforms and integrating more contemporary, real-world content, we redesigned the course to offer a more engaging and relevant educational experience. The following sections detail the context, design process, results, discussion, and future work, providing a comprehensive overview of the redesign and its impact on student learning and engagement.

PRECIPITATING CHALLENGES

The initial design of the junior-level information systems course, a core requirement for all business majors, had both strengths and notable areas for improvement. We initially offered the course in both face-to-face and online formats

to provide flexibility, allowing students to choose between real-time interaction and self-paced learning. However, when we moved the course entirely online, paired with the high enrollment in each course section, it compounded challenges for students and faculty. For years, class size has been a central concern among educators, who have long believed it plays a crucial role in shaping student learning and engagement (Akerhielm, 1995; Schanzenbach, 2014; Toth & Montagna, 2002). The argument suggests that as class sizes expand, educators find it increasingly difficult to maintain high-quality and frequent student-teacher interactions, resulting in diminished learning experiences for students (Hewitt & Brett, 2007; Orellana, 2006). In high-enrollment courses, educators face greater challenges in providing individualized attention, cultivating active participation, and responding to diverse student needs, all of which are integral to fostering deep learning and sustained engagement (Russell & Curtis, 2013; Saiz, 2014). This perceived reduction in personal connection and instructional support highlights why class size continues to be viewed as a pivotal factor in academic success. Delivering high-enrollment courses online compounds these challenges (Braga et al., 2015; Deming et al., 2015; Jordan, 2014; Rath et al., 2010; Trammell & LaForge, 2017), where the transactional distance and lack of face-to-face interaction further reduce opportunities for personalized guidance and timely feedback (Lowenthal et al., 2019). In these environments, students often experience a heightened sense of isolation, with limited opportunities for real-time engagement with instructors or peers, making it even more difficult to foster meaningful learning and engagement. Online courses demand more self-directed learning, and with large class sizes, it becomes nearly impossible for instructors to monitor individual progress, facilitate in-depth discussions, or provide tailored support—all of which are essential for student success.

In addition to faculty concerns associated with high-enrollment online courses, we collected student feedback from the university's end-of-course evaluations across 23 offerings between Spring 2019 and Spring 2022, which revealed several significant challenges that aligned with our own experiences as course designers and instructors. Upon reviewing this feedback and reflecting on our teaching, we identified two key areas needing improvement: course content and instructional strategies. We made these areas the focal points of our course redesign.

COURSE CONTENT

Lack of Exposure to Enterprise Software

As faculty, we quickly recognized a significant gap in the course design: the lack of exposure to enterprise software, which is a fundamental aspect of modern information systems education. We found this absence concerning because it left students underprepared for the practical, hands-on

skills they would need in their future careers, particularly in navigating the key tools and platforms that are widely used in industry. Enterprise software, such as ERP systems, CRM platforms, and data analytics tools, forms the backbone of most business operations today. Without adequate familiarity with these technologies, students risked entering the workforce with theoretical knowledge but without the practical experience necessary to confidently apply what they had learned (Glaveski, 2019).

This deficiency not only hindered their ability to bridge the gap between classroom learning and real-world application but also put them at a disadvantage in a competitive job market. Employers are increasingly seeking candidates with direct experience on these platforms, valuing technical proficiency alongside critical thinking and problem-solving abilities. When we failed to integrate these systems into the course, we missed an opportunity to enhance students' technical competence and better prepare them for the rapidly evolving demands of industry. In response, we sought to incorporate enterprise software tools directly into the curriculum, ensuring that students gained both familiarity and proficiency with the platforms they would encounter in their careers (Tan et al., 2022).

Merger into a Single Course

One of the most significant structural challenges we encountered as faculty was the need to merge the previously separate versions of the course, one tailored exclusively for information systems (IS) majors and the other designed for non-majors, into a single, unified course. The original separation allowed us to cater to the distinct needs of each group. For IS majors, we were able to delve deeply into more complex technical concepts and prepare them for advanced courses and future industry demands. Meanwhile, the version for non-majors focused on delivering foundational knowledge, tailored to students who would require a broad understanding of information systems in their respective fields, but not the same depth of technical expertise. The merger of these two versions into one comprehensive course presented a complex challenge for us. The classroom now encompassed a wide range of students with diverse academic backgrounds, varying levels of prior knowledge, and differing professional aspirations. Some students were highly invested in learning the intricate technicalities of the field, while others simply needed to grasp the fundamentals to apply to broader business contexts. This diversity in interests and expertise made it difficult for us to design a curriculum that could simultaneously engage and challenge all students, while also ensuring that the learning objectives were met for both majors and non-majors.

Reliance on Publisher-Provided Materials

Aligning with our own experiences, one of the most significant issues students raised about the course was the

overwhelming reliance on publisher-provided materials, which led to widespread dissatisfaction; for example, one student shared, "This class is incredibly dense in regards to terms, definitions, lists, and descriptions. Some weeks, I found myself just clicking on any answer because I was simply overriding this question and just wanted to be done." We relied heavily on textbook readings, pre-recorded lectures, and high-stakes exams to structure the course content. While this traditional structure allowed for an organized presentation of the content, it quickly became outdated, unable to keep pace with the rapid advancements in the field of information systems. As a result, students felt underprepared for industry's evolving demands and technologies, voicing that the course did not equip them with the practical skills needed for their future careers.

Several students shared their frustration with the lack of original content from the instructor. One student noted, "I don't even understand why we have a professor for this course. McGraw-Hill provides [the instructor] all the material and literally does the grading for [the instructor]. Other students echoed this sentiment, with one student commenting, "I'd like to see future sections of this course implement more of a role for the professor in the class because otherwise, it's just an extremely unfulfilling course for a much higher price tag than most other courses due to the expensive McGraw-Hill Connect subscription." Similarly, another student recommended, "Remake and teach material. I don't think I've seen a single piece of original work created by the instructor."

Lack of Alignment with Disciplinary Standards

While considering the impact of an over-reliance on publisher-provided materials, we realized that the course content was no longer aligned with recent disciplinary curriculum standards efforts. In particular, a comprehensive framework for undergraduate information systems education is outlined in the IS2020 A Competency Model for Undergraduate Programs in Information Systems, developed by the Joint ACM/AIS IS2020 Task Force. This model ensures that programs remain relevant and aligned with industry standards. Now we recognize that trusting publishers to guarantee such alignment was clearly a mistake.

INSTRUCTIONAL STRATEGIES

Lack of Relevant Engagement

In an online learning environment, meaningful engagement is essential for maintaining motivation and fostering deep learning. However, the course's reliance on static resources like textbook readings and pre-recorded lectures offered limited opportunities for active participation. As a result, students found themselves passively consuming information, with few chances to apply their learning through discussions, problem-solving, or critical analysis. One student encapsulated this frustration by saying, "Talk about real-world

situations and companies that deal with the material that we are learning in class. Understanding how the software and concepts work in the business world would help us understand everything more." Another discouraged student shared, "I would like to know more about the real-world application... Didn't learn much in this class."

Our continued reliance on publisher-provided materials further exacerbated the problem, stripping the course of opportunities for relevant engagement with real-world problems of practice. Because we did not include interactive elements such as discussions, collaborative projects, or peer interaction, students struggled to meaningfully connect with the content. As one student shared, "Class felt pre-planned, with a lack of interaction." This disengagement spilled over into their interactions with peers, eroding the sense of community that is vital to a rich and effective educational experience. The overall lack of relevant engagement led to disconnection and demotivation, underscoring the need for a more interactive and involved approach to course design.

Lack of Instructor Presence

When the university shifted to an exclusively asynchronous online format during the COVID-19 pandemic, the change exacerbated many of the existing challenges within the course, especially the lack of instructor presence. Many students voiced dissatisfaction with the limited interaction they had with the instructor. One student noted, "I have never met the instructor; the class is online. [The instructor] sends a reminder email once a week." Another student expressed frustration, stating, "I paid to teach this class to myself." And another student offered, "Actually teach. It is ridiculous that literally the only time we hear [the instructor's] voice is when [they have] done a two-second video as reminders of an assignment being due."

Because the instructors did not engage meaningfully, students felt isolated and unsupported. As one student remarked, "The instructor could show more interest in the course and be more involved rather than only providing assignments and reading for students to comprehend all the course material." Other students pointed out the absence of personalized communication, suggesting "Communicate more with follow up emails since this class is fully online" and "I think it would've been nice if [the instructor] checked in and made sure we were doing okay every once in a while since this class is asynchronous."

Students also articulated a strong desire for the course to feel more tailored and actively led by the instructor. One student commented, "Provide your own material. Show expertise on the subject matter. If I am expected as a student to do original work every single week, I also expect my instructors to provide original assignments." Our heavy reliance on pre-packaged materials further diminished the perceived role of the instructor.

Instead of engaging with students, facilitating discussions, or providing personalized insights, the instructor's role became largely administrative. One student encapsulated the impact of this absence of instructor presence by describing the course as a "self-taught" environment, adding, "It was a self-taught class, and what made it harder was the lack of communication. It didn't provide any environment for actually learning the concepts and terms."

Reliance of High-Stake Summative Assessment Methods

Another critical challenge identified by students was our over-reliance on high-stakes summative assessment methods, particularly multiple-choice exams. These assessments created an environment of intense pressure and anxiety, which many students felt did not accurately reflect their understanding or ability to apply the material in meaningful ways. Because we relied on high-stakes exams that prioritized rote memorization over critical thinking and practical skills, the approach conflicted with the course's overarching goal of fostering deep learning and industry-relevant competencies.

One student voiced frustration, stating, "Making an exam with 100 questions and having students memorize terms isn't an efficient way to learn anything, especially if it is important for future courses." This sentiment reflected the growing dissatisfaction with an assessment strategy that focused more on surface-level recall than on students' ability to engage deeply with the material. As a result, students felt that the course did not equip them to tackle real-world challenges, which require not just knowledge retention but the ability to analyze, synthesize, and apply information in dynamic contexts.

Furthermore, our reliance on these high-stakes exams undermined opportunities for formative assessments that could have provided students with continuous feedback and a more accurate reflection of their progress. Instead of building on their skills throughout the course, we primarily judged students based on their performance in a few critical testing moments. One student shared, "The class only has two exams with many topics and material. There is a study guide, but it does not prepare you for the exam. There should be a practice test." Other students expressed their difficulty with high-stakes, summative assessments: "Hard tests that I did not feel prepared for" and "Maybe have multiple exams. I feel that studying chapters 1-6 for a midterm can be overwhelming. If it were structured like that, I would probably get a higher grade in the class." This approach not only heightened stress but also limited the instructor's ability to identify and address learning gaps in a timely manner. We recognized the need for a shift towards more varied, lower-stakes assessments—such as practical assignments, reflective activities, and peer evaluations. These issues not only impact student

engagement and satisfaction but also undermined the development of the critical skills and deep understanding that are essential for success with information systems. In response, we embarked on a comprehensive course redesign to tackle these shortcomings head-on. Our goal with the redesign was to create a more interactive, student-centered learning experience—one that would better align with real-world applications, increase instructor presence, and prioritize authentic, formative assessments over traditional high-stakes testing.

REDESIGN DECISIONS

In this section, we describe the key changes we implemented and how they reshaped the learning environment to support our students' academic success and professional readiness more effectively.

Course Content

We made the creation of a new conceptual model for the course content a major component of the redesign. During the last half century, a common way of categorizing computer technology has been to divide it into hardware, software, and data (Jessup & Valacich, 2008; Kroenke, 2011; Laudon & Laudon, 1988). In recent years, the lines between these three categories have blurred significantly. Object-oriented computing attempts to merge data and software, and the development of modern operating systems, the ubiquitous adoption of internet technologies, and the revolution in mobile computing make the original distinctions between hardware, software, and data largely irrelevant (Bourgeois et al., 2019; Reynolds & Stair, 2020).

Moving away from the traditional framework of hardware, software, and data, we restructured the course around the more contemporary categories of platforms, tools, and media (see Figure 1). This shift allowed us to better encapsulate the current state of the information systems field and provide students with a more relevant and practical understanding of the material.

In this course, our goal is to expose students to all three types of IT resources commonly deployed in modern organizations. In the platform area, we will cover some of the major enterprise platforms, including Salesforce, SAP, and Tableau. In the tools area, we will focus on productivity tools and specifically Microsoft Excel. In the media area, we will explore

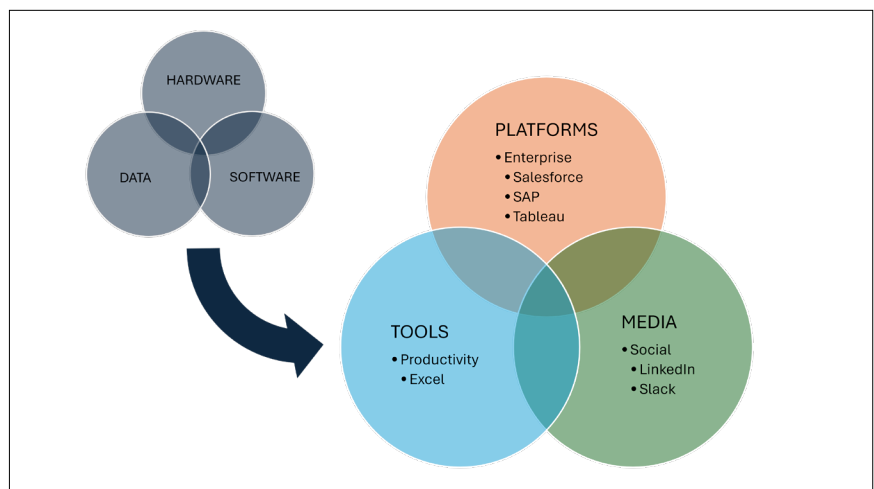


FIGURE 1. Shift from traditional view to focus on Platforms, Tools, and Media.

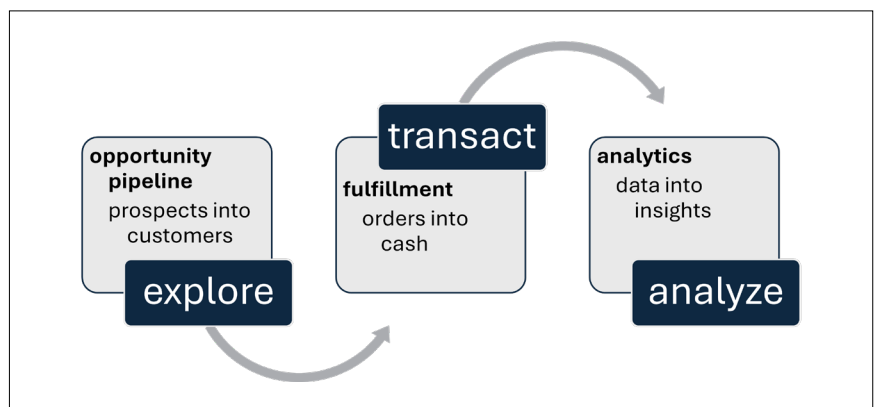


FIGURE 2. Opportunity to Insight Mega Cycle.

professional social media, while also exploring identity and organizational roles, using LinkedIn and Slack.

We shifted the redesign focus towards business processes, emphasizing the practical application of information systems in real-world business contexts.

To create a unified and coherent learning experience, we integrated several MIS-specific topics that were not adequately covered in its previous version. These topics included a deeper understanding of and hands-on experience with ERP systems, information literacy and data visualization, and using professional communication platforms for building and presenting their career identity. We paired each topic with a series of hands-on activities and tools that aimed to enhance students' experiential learning.

For example, to provide hands-on experience with ERP systems, we incorporated multiple business processes using SAP, namely sales, shipping, billing, and order fulfillment, as well as several Salesforce modules. To teach data visualization and enable students to analyze and present data effectively, we incorporated Tableau in the course. To develop students' professional communication skills, enhance their

career readiness, and presentation of their capabilities, we incorporated Slack and LinkedIn activities in the course.

We structured the redesigned course around the “opportunity-to-insight” megacycle (see Figure 2), which served as an overarching theme to illustrate the real-world applications and value of the course content.

This cycle begins with the exploration or scanning of the environment for opportunities to fulfill the organization’s mission, whether it be profitability or the creation of meaningful change. Some of these opportunities are realized in the form of concrete transactions that may involve the fulfillment of an order or the provision of a service. Finally, we analyzed data about these transactions to gain insights that lead to new opportunities.

For the course redesign, we wanted to focus on three distinct components or sub-cycles of the opportunity-to-insight cycle using enterprise platforms. In Salesforce, we wanted students to examine the development of leads, the qualifying and conversion of these leads into opportunities and accounts, and the establishment and management of the customer relationship. Using SAP, we wanted students to trace the flows of information that make up the fulfillment process in which orders are converted into cash. Finally, with Tableau, we wanted students to explore the analysis of data that is generated by these transactions to reveal insights about the organization and its context.

As mentioned in the Precipitation Challenges section, we paid particular attention to aligning the content with the competencies outlined in the IS2020 A Competency Model for Undergraduate Programs in Information Systems, we focused on the competencies described for the Foundations of Information Systems course, which emphasize the application of technical knowledge to organizational processes, as well as the development of analytical and problem-solving skills in a business context. By integrating these competencies into the course, we aimed to provide students with a solid foundation in information systems while ensuring they gain the critical skills needed for success in a global and distributed organizational environment. Through this alignment, we ensured that students were exposed to the latest industry expectations and prepared to apply their knowledge effectively in real-world situations. We have adopted the IS 2020 Competencies for the Foundation Level Course as the course learning goals (see Table 1; Leidig et al., 2021).

Instructional Strategies

We effectively applied the *Rich Environments for Active Learning* (REALs) framework (Dunlap & Grabinger, 1996; Dunlap et al., 2009; Grabinger & Dunlap, 1995)—a learning-design approach we have used successfully in other course design and redesign projects. We grounded our

Classify the components, elements, operations, and impact of IS
Interpret the dimensions, characteristics, and value of quality information
Explain the roles, responsibilities, and characteristics of the IS professional
Recommend techniques for using information and knowledge for business decision making and strategic value
Analyze a business case and critique appropriate IS solutions to common business problems, based on the different components, elements, types, and levels of IS
Critique and recommend Enterprise Systems for a given business problem and processes
Identify techniques for transmitting and securing information in an organization
Demonstrate an ability to solve basic computational and design problems using IS development with appropriate methodologies, software tools and innovative methods for improving processes and organizational change

TABLE 1. Learning Goals adopted from IS 2020, p 97.

design decision in constructivism, situated cognition, experiential learning, and social learning theory. Using the REALs framework, we outlined strategies for the designed learning environments that deeply engage students through meaningful, context-rich experiences in both in-person and online learning spaces (Robinson et al., 2015; Wang et al., 2024). Widely adopted across diverse learning contexts, the framework emphasizes active knowledge construction, social interaction, and the use of diverse resources and perspectives, all while providing scaffolding and support as learners acquire new knowledge and skills (Buckley et al., 2011; Fukuda, 2018; Nansen, 2024; Pang & Goh, 2015; Scholten & Dubois, 2017). This framework aligned closely with our instructional goals for the course, as it promotes student-centered learning through contextualization, collaboration, authentic assessment, and sustained engagement.

Contextual Learning

In alignment with the REALs framework, we recognized the critical importance of situating learning within authentic, real-world contexts—particularly to meet our objective of exposing students to the practical use of enterprise software. A foundational principle of the REALs framework, contextual learning immerses students in real-life scenarios where theoretical knowledge is actively applied to solve practical challenges, thereby closing the gap between abstract academic content and professional practice (Giamellaro, 2017; Perin, 2011; Roth & Jornet, 2013).

To operationalize this principle, we redesigned the course around core business processes and their real-world

	ACTIVITY TITLE	WORKFLOW	LEARNING GOAL ALIGNMENT
EXPLORE	Salesforce Lead Conversion Activity	Students begin by reviewing Salesforce tutorials and a provided lead dataset. They input data into Salesforce, qualify leads, convert them into accounts, and manage opportunities through various stages, documenting interactions and strategies.	Supports the goal to <i>critique and recommend enterprise systems for a given business problem and processes</i> , with a focus on understanding CRM systems as strategic tools for customer relationship management (Figure 3).
TRANSACTION	SAP Integrated Fulfillment Process Exercise	Students sequentially navigate SAP to enter sales orders, verify inventory levels, allocate stock, manage logistics for shipment, and complete billing. They then export transaction data into Excel for further analytical insights.	Aligns with goals to <i>analyze a business case and critique appropriate IS solutions and demonstrate ability to solve basic computational and design problems using IS development with appropriate methodologies</i> , reinforcing enterprise system applications (Figure 4).
ANALYZE	Tableau Business Insight Dashboard Project	Students import structured datasets into Tableau , create visualizations highlighting sales performance, segment customers, and analyze trends. Dashboards are published via Tableau Public for interactive access and feedback.	Addresses the goal to <i>recommend techniques for using information and knowledge for business decision making and strategic value</i> , emphasizing students' ability to interpret and communicate data-driven insights effectively (Figure 5).

TABLE 2. Example Activities & Learning Goals.

Understand Lead Records

The lead record is your workspace for tracking interactions, checking campaign history, and planning future activities as you move your lead through the sales process. On your lead record, you may find the following information.

FIGURE 3. Salesforce Lead Conversion Activity.

applications within the field of information systems (IS). This intentional shift aimed to enhance the relevance and engagement of the learning experience by emphasizing how IS tools and practices are used to address actual business challenges. By foregrounding these applications, we sought to promote student understanding of the direct connection between course content and future career demands—an essential aim of the REALS framework's emphasis on authenticity and relevance.

We introduced the “*opportunity to insight megacycle*,” which is central to this redesign, as a thematic narrative thread that provided continuity and coherence throughout the course. This megacycle illustrates the end-to-end process of leveraging information systems to identify business opportunities, gather and analyze data, and transform that data into actionable insights to support strategic decision-making. Embedding this cycle across the curriculum allowed us to highlight how IS plays an integral role in enabling and

Overview

For this exercise, you will combine what you have learned in the previous SAP exercises through a real life scenario of integrated fulfillment. By now, you should be familiar with how SAP manages the "order-to-cash" cycle through sales to shipping to billing. This exercise integrates and streamlines these important business processes.

Scenario

Imagine that you are walking through the warehouse, and you spot a pallet with some material on it. You do a quick check (using t-code MMBE) and notice that the material isn't listed. In other words, there is 0 in inventory and none on order. However, you are looking at the pallet and notice it is some of your trading goods, and in fact, it is some of the trading goods that a customer was just asking about!

This is great news! The supply chain is backed up, and you were not able to give your customer an available to promise (ATP) date. Now, all you need to do is to enter the materials into inventory. We call this "Inventory from Heaven" What that means is that you don't have to go through the lengthy procurement process to get the materials into inventory.

Process

The process is easy: you will use t-code MIGO, Goods Receipt, Other, movement type 501 to enter 1000 units of the material (you can choose any of the trading goods) into inventory. Once you have the materials in stock, you will create a sales order, ship the materials, bill the customer, collect the payment, and finally generate a report for analysis with Excel.

IMPORTANT: Any time you see "###" in the instructions, DO NOT ENTER "###." Replace these characters with the three digits from your SAP login ID. For example, if your SAP login ID is "learn-555", you will use "555" any time you see "###" in the instructions.

For logging into SAP please refer to [Log on to SAP](#).

Step 1: Add material to inventory

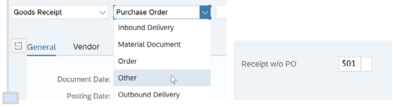
Let's get started by adding the material to inventory.

Step 1.1

Follow the menu path:

Logistics > Materials Management > Inventory Management > Goods Movement > Goods Movement (or use MIGO)

Once you are in the MIGO screen, make sure **Goods Receipt** is selected in the first box, and use the dropdown to select **Other** for the second box. The movement type should change to 501.



Step 1.2

Next, simplify the MIGO screen by closing the Item Detail area:

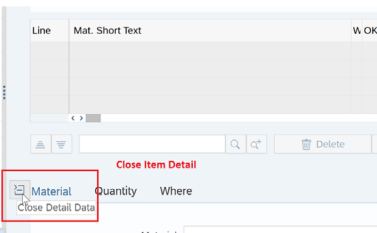


FIGURE 4. SAP Integrated Fulfillment Exercise.

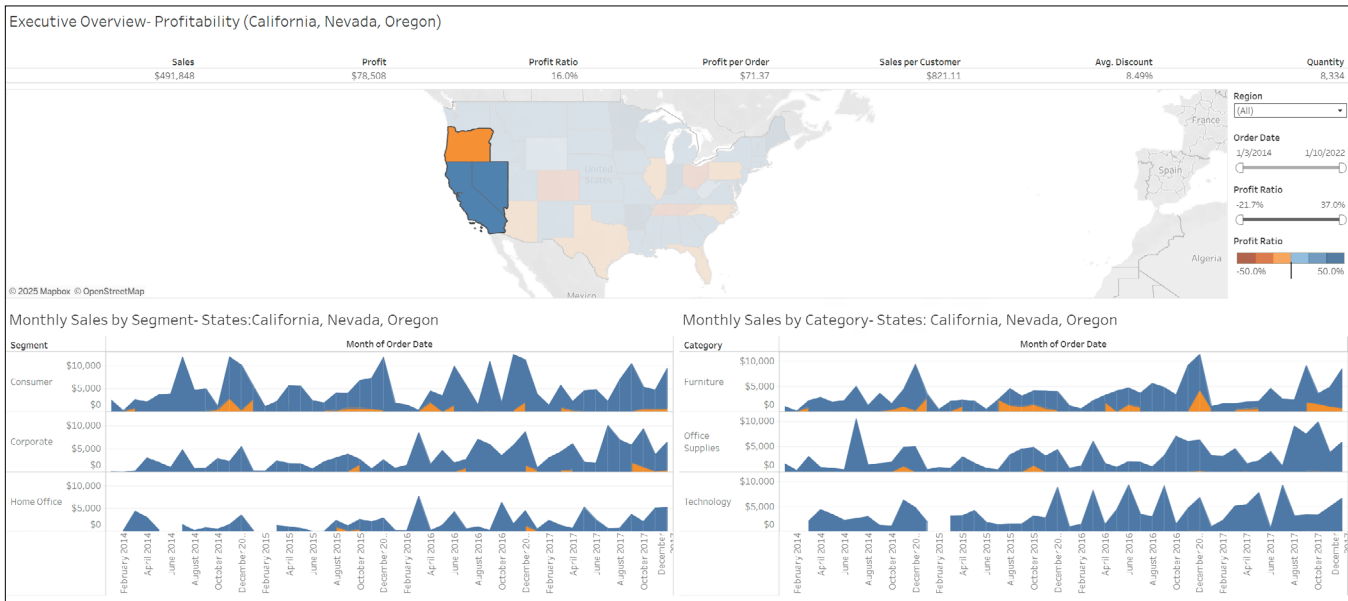


FIGURE 5. Tableau Business Insight Dashboard Project.

enhancing business operations, and encouraged students to think critically about the application of theory to practice.

In keeping with the REALS framework's emphasis on authentic tasks and assessment, we redesigned course assignments and projects to reflect the stages of the

opportunity to insight megacycle. We required students to identify real-world business opportunities, analyze relevant data using enterprise tools, and present their insights in formats that mirror professional practice. These assessment strategies reinforced the practical application of course content while fostering students' ability to think strategically

and make evidence-based decisions, skills highly valued in the workplace (see Table 2; Figures 3, 4, and 5).

Additionally, by embedding contextual learning deeply into the course structure, we aimed to enhance cognitive presence within the online learning environment, another key goal of the REALs framework. We believed that by engaging students in tasks that mirrored real-world professional experiences, we would deepen their learning, foster critical thinking, and contribute to a more meaningful and immersive online learning experience.

Aligned with the REALs framework, which emphasizes the importance of collaboration, dialogue, and shared meaning-making, we prioritized social learning as a core design principle in the course redesign. According to social learning theory, knowledge is constructed through interaction with others, where individuals build upon each other's ideas, challenge assumptions, and co-construct understanding within authentic social contexts (Bandura, 1977; de Felice et al., 2022; van der Stap et al., 2024). To support this principle, we integrated Slack as a central platform for communication,

aiming to create a vibrant, interactive learning community that mirrors the collaborative environments students may encounter in their future workplaces.

Social Interaction

Aligned with the REALs framework, which emphasizes the importance of collaboration, dialogue, and shared meaning-making, we prioritized social learning as a core design principle in the course redesign. According to social learning theory, knowledge is constructed through interaction with others, where individuals build upon each other's ideas, challenge assumptions, and co-construct understanding within authentic social contexts (Bandura, 1977; de Felice et al., 2022; van der Stap et al., 2024). To support this principle, we integrated Slack as a central platform for communication, aiming to create a vibrant, interactive learning community that mirrors the collaborative environments students may encounter in their future workplaces.

Recognizing the importance of social presence in online learning, our goal was to encourage students to actively participate in both formal and informal discussions, engage

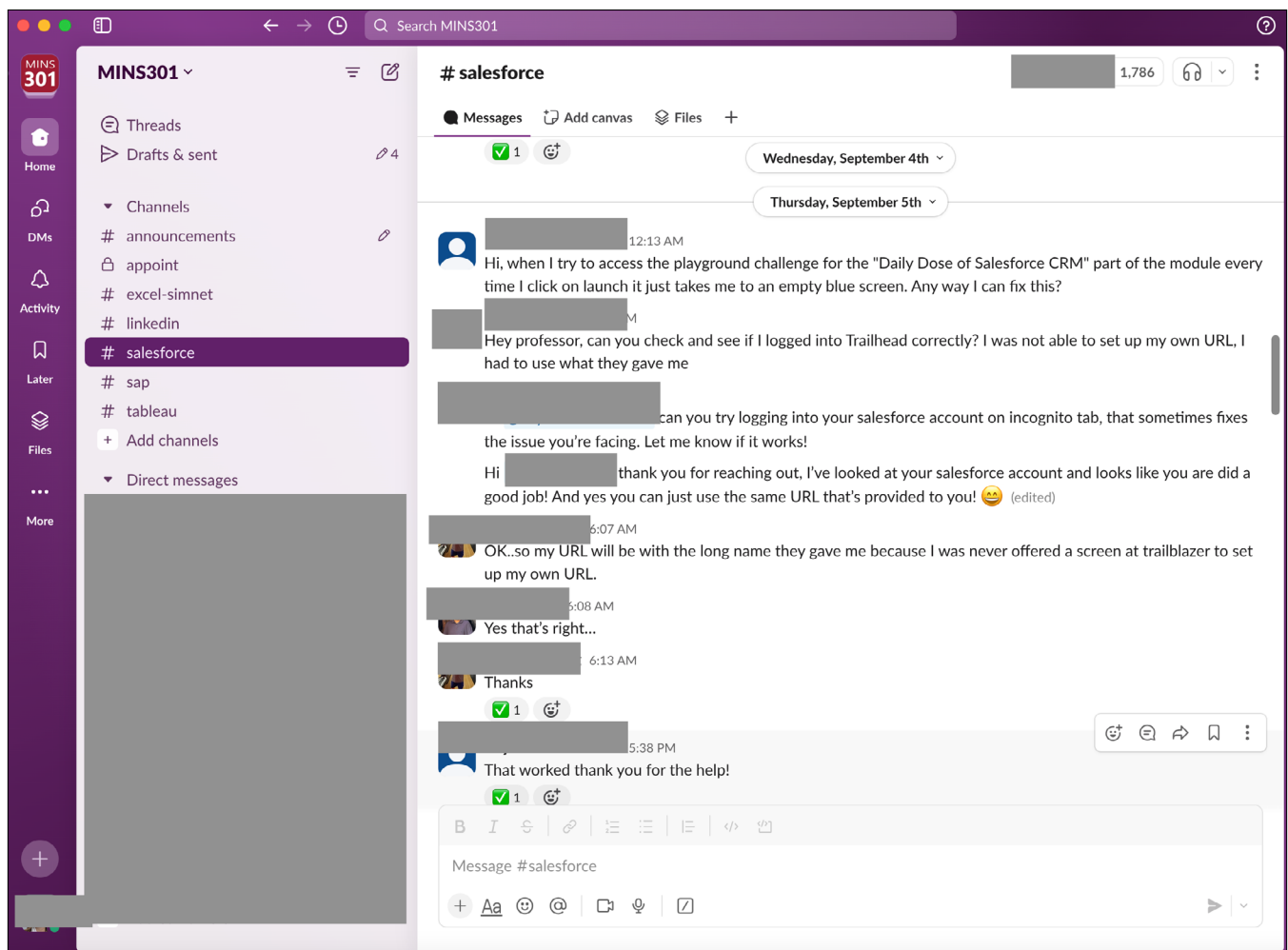


FIGURE 6. MINS 301 Slack Workspace.

in collaborative problem-solving, and develop a sense of connection with peers and instructors. By leveraging Slack's real-time, conversational interface, we sought to foster an environment where students could meaningfully interact beyond the limitations of traditional discussion boards. We expected this integration to not only support peer-to-peer learning but also enable stronger teaching presence, as instructors could monitor discussions, provide timely feedback, and respond to student questions and concerns in real time. We anticipated that this would promote a more responsive, student-centered learning experience and contribute to a stronger sense of community in the course (see Figure 6).

In alignment with the REALs emphasis on support and scaffolding, our instructional team implemented a coteaching model to further enhance the learning experience. Within a single Canvas course shell, two to three instructors collaboratively support approximately 400 students. Each instructor offers individual office hours—both in-person and via Zoom—totaling 7.5 hours weekly. Additionally, teaching assistants provide 15 hours of Zoom-based support each week, and students also have access to 10 hours of drop-in tutoring through the College of Business.

While all instructors are familiar with the full scope of course content, each brings specialized expertise in particular areas. For example, one instructor has deeper experience with SAP, while another specializes in Tableau. Slack enabled us to leverage this distributed expertise by allowing the instructor with the most relevant knowledge to respond to student questions in real time. This approach aligned with the REALs framework by ensuring targeted scaffolding, where students received timely, expert guidance based on their specific needs and contexts.

Active Knowledge Construction

A central tenet of the REALs framework is the belief that learners construct knowledge most effectively when they are actively engaged in meaningful tasks that mirror the complexity and relevance of real-world challenges. Drawing on this principle, we approached the course redesign with a constructivist mindset, emphasizing active learning, critical inquiry, and reflective practice as core components of the student experience. Learning, in this context, is not a passive process of knowledge transmission but an active, iterative journey in which students connect new information to prior knowledge, solve complex problems, and make sense of their experiences through sustained reflection (Chan, 2013; Hewitt & Scardamalia, 1998; Koohang & Paliszkiwicz, 2013; Kulikovskikh et al., 2020).

To foster active knowledge construction, another key element of the REALs framework, we redesigned the course to immerse students in hands-on, experiential learning. This involved integrating professional-grade enterprise platforms—such as enterprise resource planning (ERP) systems,

ASSIGNMENTS		POINTS
Platform activities (Salesforce, SAP, Tableau)		250
Tool exercises (Excel/SIMnet)		240
Media work (LinkedIn/Slack)		85
Evaluations		
Readiness test	25	
Weekly quizzes	150	
Excel capstone project	50	
Total evaluations		225
Total Possible Points:		800

TABLE 3. Grading Scale.

customer relationship management (CRM) tools, and data analytics software into the learning experience. By working directly with these systems, students engaged with course concepts in ways that closely resemble how they are applied in professional settings. We designed this approach to bridge the often-cited gap between theoretical understanding and practical application, aligning with the REALs emphasis on authentic learning environments.

We also reimagined the course structure to promote learner autonomy and cognitive presence, both of which are supported by the REALs framework. Students were given opportunities to explore course topics independently, make choices aligned with their career goals, and engage in self-directed problem-solving activities. Through these experiences, they were encouraged to take ownership of their learning, ask questions that mattered to them, and construct knowledge in ways that were both personally meaningful and professionally relevant.

Rather than merely learning about information systems, we invited the students to interact with them directly, applying theoretical insights to real-world scenarios and reflecting on the implications of their work. We designed this active engagement with authentic tools and challenges to cultivate deeper understanding and long-term retention of key concepts (see Table 3). In this way, the course redesign embodied the REALs framework's comprehensive approach to learning—one that emphasizes rich, authentic contexts to cultivate not only practical skills but also critical thinking and a strong sense of learner agency.

Multiple Perspectives and Resources

Another essential dimension of the REALs framework is the intentional exposure to multiple perspectives and diverse resources, which supports deeper learning by allowing students to approach concepts through different lenses and modalities (Firetto, 2020; Jewitt et al., 2016; Kuhn, 2019; Van

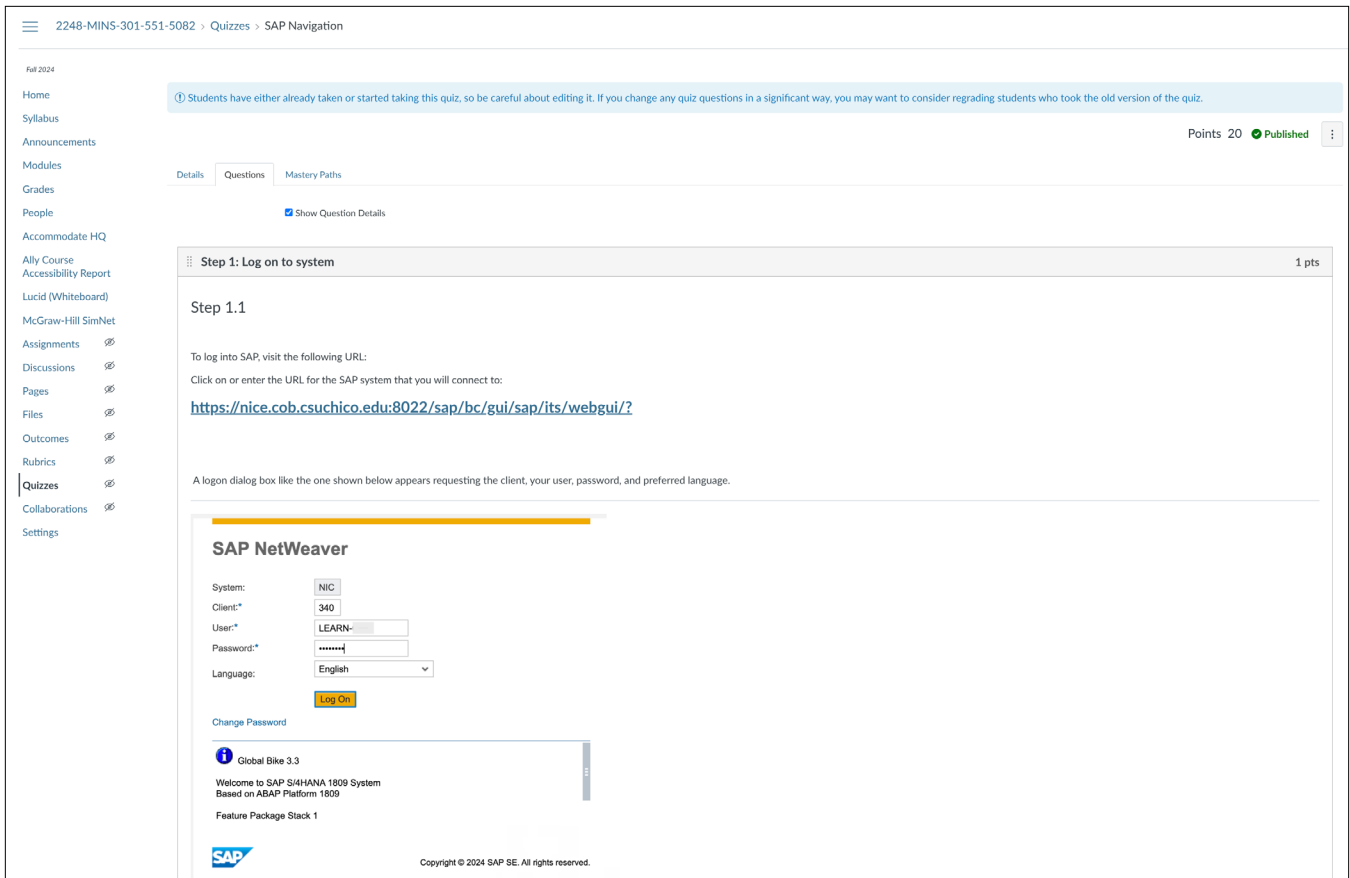


FIGURE 7. SAP Navigation Quiz.

Meter et al., 2020). In line with this principle, we reexamined the course content with the goal of strengthening teaching presence and responding to student feedback about outdated, publisher-provided materials. To modernize and enrich the learning experience, we replaced static textbooks with curated readings from high-quality online publications that highlight current issues and innovations in the field of information systems.

Through this redesign, we reflected the REALs emphasis on relevance and authenticity—ensuring students are not only learning foundational concepts but also staying informed about emerging technologies, industry trends, and real-world challenges. The selected readings were intentionally diverse, drawing on perspectives from academic researchers, industry practitioners, and thought leaders. This variety encouraged students to critically evaluate contrasting viewpoints, recognize the evolving nature of the field, and

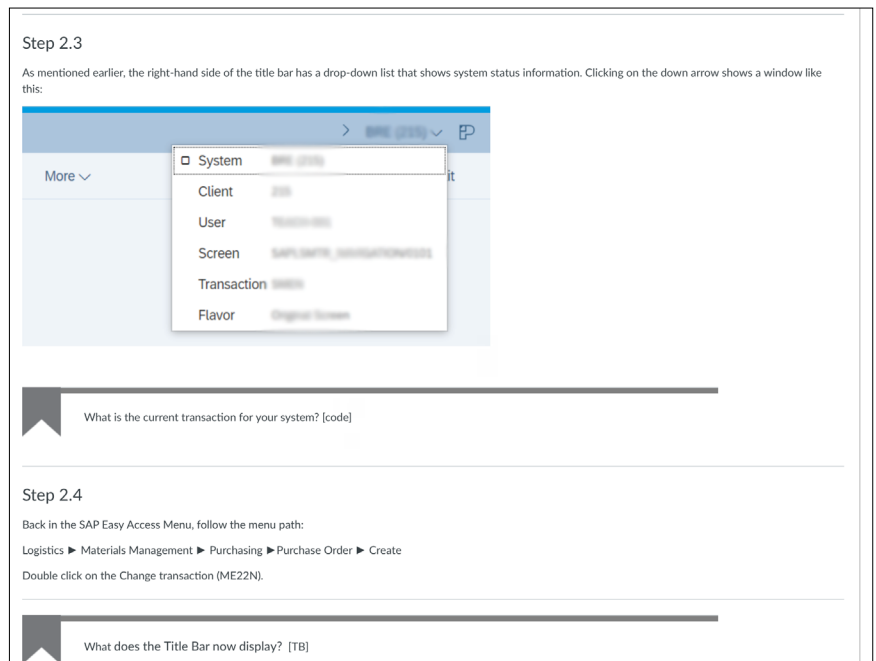


FIGURE 8. SAP Navigation Quiz Question.

develop a more nuanced understanding of information systems in practice.

In addition to these updated readings, we embedded platform-specific training materials and certifications, further aligning with the REALs framework's call for engagement with professional tools and real-world contexts. These resources—offered by leading technology providers—included interactive modules, case-based tutorials, and credentialing opportunities that allowed students to gain hands-on experience with tools widely used in the industry. By completing certifications, students not only demonstrated their competence but also developed transferable skills that could enhance their career readiness (see Figures 7 & 8).

This integration of current, practice-oriented resources supported multiple learning pathways and fostered a more dynamic and applied learning environment—key goals of the REALs approach.

Scaffolding and Support

The REALs framework also recommends scaffolding and ongoing learner support, which are crucial for helping students navigate complex tasks, build confidence, and ultimately develop the skills to learn independently (Hughes et al., 2008; Rotar, 2022; Uribe & Vaughan, 2017; van de Pol et al., 2015). In redesigning the course, we sought to operationalize this principle by implementing comprehensive support mechanisms designed to guide students through their learning journey while gradually encouraging autonomy.

We began by enhancing the course infrastructure with clear, step-by-step assignment instructions that clarified expectations and reduced cognitive load. To help students acclimate to the course environment and tools, we created "Getting Started" videos that introduced key platforms and explained the course structure. Additionally, we developed platform-specific instructional videos—including a series of "How to" tutorials—to build students' competence with enterprise software. These resources provided the foundational guidance students needed to confidently engage with the technical aspects of the course (see *How-to Videos* playlist).

Consistent with the REALs framework's emphasis on responsive teaching presence, we also revisited our facilitation strategies. Faculty were encouraged to offer timely, constructive feedback and to maintain consistent availability for student support. Our aim was to cultivate a sense of instructor presence that would make students feel seen, supported, and empowered as they navigated the course. Through this presence, we hoped to mitigate common challenges in online learning—such as isolation or confusion—and foster stronger connections between students and instructors.

Another important feature of our redesign was the continued use of a coteaching model, which significantly strengthened our scaffolding efforts. By having three instructors collaboratively support approximately 400 students, we were able to draw on distributed expertise and provide

more customized, responsive guidance. Students could access tailored help from the instructor best suited to their needs, while also benefiting from more frequent and timely feedback than would be possible in a single-instructor model. This structure not only enabled us to respond quickly to student questions but also allowed us to adjust our level of involvement as students gained confidence and competence—an approach that reflects the REALs emphasis on graduated support and learner development.

Ultimately, these scaffolding strategies were designed to do more than help students succeed in individual assignments. They aimed to foster critical thinking, self-regulation, and problem-solving skills—key outcomes aligned with the REALs framework and essential for success in both academic and professional contexts.

Authentic Assessment

Authentic assessment is a cornerstone of effective learning, as it aligns with real-world tasks and challenges, making the learning process more meaningful and engaging. In contrast to traditional assessments such as high-stakes exams, authentic assessments require students to apply their knowledge in practical, context-rich scenarios. These assessments allow students to demonstrate their understanding through activities such as solving complex problems, conducting research, or creating projects that mirror the professional challenges they will face in the workplace (Ajjawi et al., 2023; Ashford-Rowe et al., 2013; Boud & Walker, 1998; Jackson, 2017; McArthur, 2023; Villarroel et al., 2018). This approach is central to the REALs framework, which emphasizes authentic learning experiences that reflect the kinds of problem-solving and critical thinking needed in real-life professional contexts.

In alignment with the REALs framework's focus on contextualized learning and ongoing feedback, the course redesign incorporated a range of authentic assessment methods tailored to the nature of the learning activities and the practical skills students were developing. Instead of relying on high-stakes exams, we implemented assessment strategies designed to foster continuous engagement and offer immediate, actionable feedback:

Weekly low-stakes quizzes: We strategically designed these quizzes to help students track their progress and receive timely feedback. By minimizing the pressure associated with traditional exams, these quizzes promoted frequent, incremental assessments of learning that supported student confidence and retention.

Practical tasks: For the core assignments, we integrated hands-on platform-based tasks that closely mirrored real-world applications of the course content. These tasks were paired with formative assessments that allowed students to engage directly with the tools and technologies they would

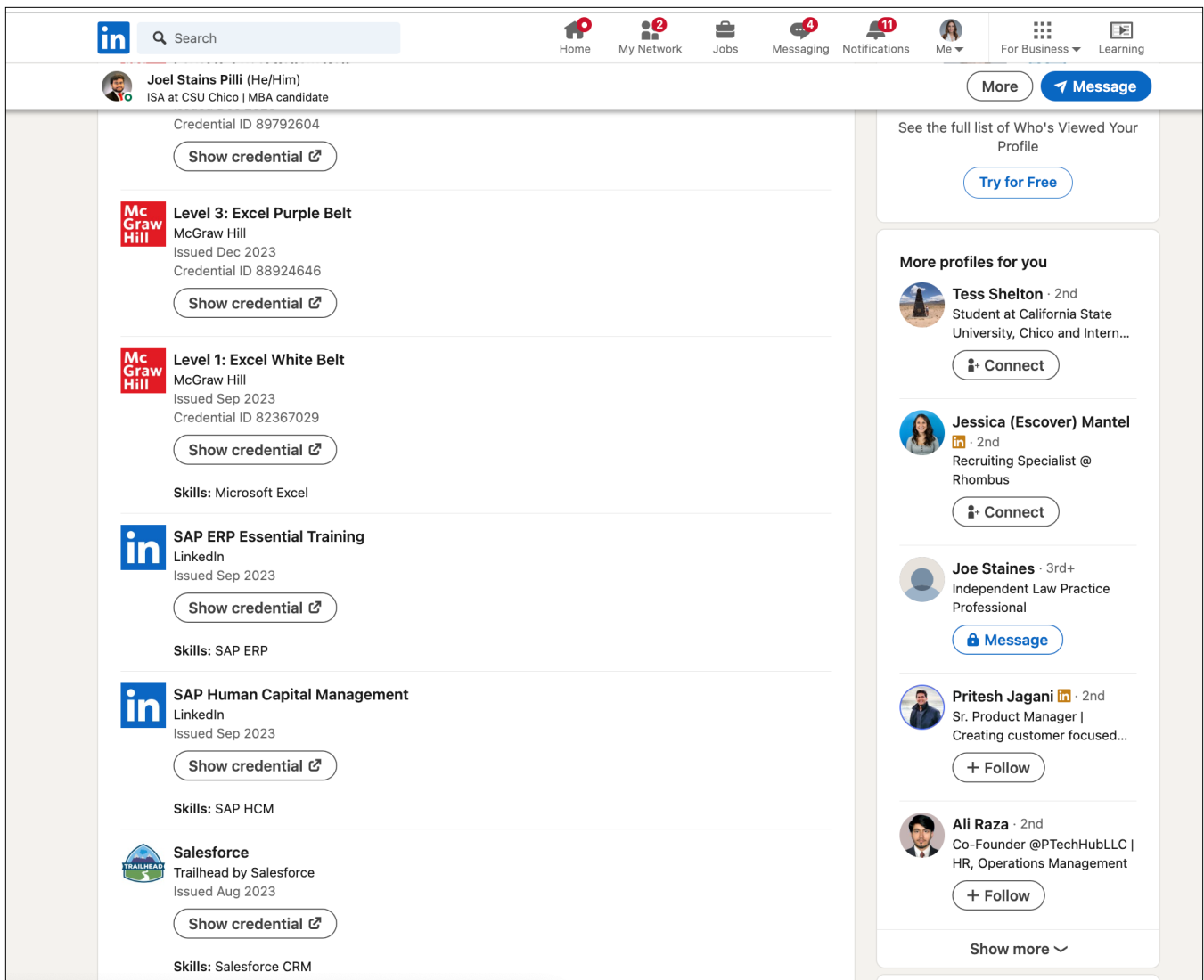


FIGURE 9. Sample of Student's Final LinkedIn Profile.

use in professional settings, reinforcing learning through practical experience (see Figure 9).

Certifications: As part of the redesign, we introduced opportunities for students to earn industry-recognized certifications linked to the enterprise software used throughout the course. These certifications provided students with concrete validation of their acquired skills and knowledge, offering both a sense of achievement and professional value.

By incorporating these authentic assessment methods, we sought to ensure that students could not only demonstrate their mastery of course material but also apply it in ways that directly mirrored professional activities. Additionally, we designed these assessments to encourage cognitive presence—a key element of the REALs framework—thereby enhancing students' engagement and enriching their overall online learning experience (see Figure 10).

In redesigning the course, we adopted the *Rich Environments for Active Learning* (REALs) framework as a guiding foundation to support our instructional goals of fostering student engagement, deep learning, and professional relevance. The REALs framework enabled us to intentionally design a learning environment that emphasized authentic contexts, active knowledge construction, collaboration, multiple perspectives, scaffolding, and ongoing feedback. Each aspect of the redesign—from the integration of enterprise software and real-world business processes to the use of Slack for social interaction, hands-on assessments, curated contemporary resources, and structured learner support—was aligned with the REALs principles. By leveraging the REALs framework throughout the course redesign, we aimed to create an engaging and supportive learning environment that directly addressed prior concerns about the course experience. Our goal was to ensure that students could develop meaningful skills, apply their knowledge in authentic contexts, and build

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I'm currently a full-time grad student pursuing my MBA. I enjoy learning and upskilling. I'm fond of cooking and reading. I also love landscape painting & swimming.

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Trailhead

ADVENTURER

18 Badges 9,950 Points 2 Trails

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Questions & Answers

0 Answers 0 Accepted Answers 0 Questions

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0 Following
0 Groups

Files

[View Files](#)

18 Badges Filter by All Badges

- Quick Start: Lightning Experience for Closers
- Quick Start: Reports & Dashboards
- Data Storytelling with Tableau Public
- Data Distributions
- Aggregation and Granularity
- Variables and Field Types
- Well-Structured Data
- Data Literacy Basics
- Drucker School—Organizational Change Leadership
- Drucker School—Balanced Scorecard
- Drucker School—Customer & Market Strategy
- Drucker School—Business Performance Basics
- Chatter Administration for Lightning Experience
- Reports & Dashboards for Lightning Experience
- Leads and Opportunities
- Accounts and Contacts
- CRM for Lightning Experience
- Opportunity Management

FIGURE 10. Sample of Badges in Student’s Trailblazer Profile.

the confidence needed to navigate real-world challenges in the field of information systems.

REFLECTIONS ON REDESIGN

The course redesign offered us an opportunity to closely examine how intentional changes in curriculum, technology, and instructional strategies impact student learning and engagement. In this section, we reflect on the lessons learned,

the challenges encountered during implementation, and the insights that will guide our future course design efforts.

What We Learned

Contextual Learning

Through the course redesign, we recognized the importance of aligning curriculum with real-world practices, as emphasized by the REAL framework. By focusing on contextual learning, we sought to bridge the gap between theoretical

knowledge and practical application. This alignment ensured that students could immediately see how the concepts they were learning in class would be relevant in their future careers, thereby enhancing engagement and motivation. For example, we integrated industry-standard tools, like ERP systems and data analytics platforms, and built course scenarios that mirrored actual business challenges. In the end-of-course evaluations collected after we launched the course redesign, students shared positive feedback such as:

- “Great fun way course learning about different software usages like Tableau, Salesforce, and Excel.”
- “I learned a great deal about excel and many CRM software, I am glad I took this class.”
- “My overall knowledge about excel and other software apps increase.”
- “We got to learn about important business programs.”
- “My overall knowledge of the subject matter has increased due to the instruction of this course.”

This immersion in real-world contexts not only deepened students’ understanding but also prepared them for the professional environments they will encounter post-graduation.

Social Interaction

We focused on fostering social interaction in an online environment as another critical element of the redesign. The REAL framework stresses the value of instructor and social presence, which can be challenging in online settings. To address this, we integrated Slack as the primary communication platform, offering a space for both formal and informal interaction. We based this decision on the tool’s ability to mirror real-world collaborative workspaces, promoting teamwork and enhancing communication. Through Slack, students engaged in group discussions, sought peer support, and communicated directly with instructors in real time. Instructors, in turn, could actively participate in these discussions, providing immediate feedback and maintaining a strong teaching presence. One student shared, “I appreciate that the professors were available on SLACK late into the evening.” Other students pointed out the value of instructor availability and feedback timeliness: “[The instructor’s] response on Slack and email was awesome especially when you needed help with something he got back to you very quickly” and “The instructor(s) were always available and communicative through Slack and Email.” Other students expressed their approval of Slack as a network for connecting with their peers:

- “I like how he set up a slack channel that we could post our questions & talk to other classmates.”
- “Provided a space for students to ask for help and help each other if we knew the answer.”

- “My instructors were amazing in this course. They made sure to have constant communication with us and with each other with slack.”

This approach fostered a vibrant, engaged learning community, helping to reduce the isolation often felt in asynchronous courses.

Active Knowledge Construction

Active knowledge construction was at the heart of the redesign, promoting deeper engagement through hands-on experiences and reflective practice. Students weren’t passive recipients of information; they were encouraged to actively engage with the material by solving real-world problems, conducting projects, and reflecting on their learning. For example, in one exercise, students combined what they had learned in previous SAP exercises through a real-life scenario of integrated fulfillment. By this stage, students were familiar with how SAP manages the “order-to-cash” cycle, covering sales, shipping, and billing. The exercise streamlined these important business processes by presenting a scenario where students, acting as warehouse managers, discover unlisted inventory on a pallet. Using SAP, they confirmed that the material was not accounted for in inventory, despite being in high demand by a customer. This discovery presented an opportunity for immediate action, bypassing the usual procurement process. Students then entered the material into inventory, created a sales order, shipped the materials, billed the customer, collected payment, and finally generated a report for analysis in Excel. This hands-on exercise not only reinforced theoretical concepts but also gave students practical experience in managing real-world business processes, deepening their engagement with the course material.

In the end-of-course evaluations, students now described the course experience as “very interactive” and “hand on learning”. This not only helped students internalize course concepts but also made the learning process more dynamic and meaningful.

Multiple Perspectives and Diverse Resources

In the redesign, we made a significant shift by moving away from publisher-provided content and instead incorporating diverse resources that reflected multiple perspectives. This change was critical for ensuring that students were exposed to a wide range of industry practices and viewpoints. We curated materials from industry reports, case studies, and real-world data, offering students a more comprehensive understanding of the subject matter. This approach also fostered critical thinking, as students were encouraged to evaluate different sources of information and develop their own informed perspectives.

Multiple professors support the students in this course, allowing them to draw on diverse perspectives and proficiencies. Each professor offers their own unique industry specialization, which provides students with different perspectives and methods.

Scaffolding and Support

We used scaffolding as an integral strategy to help students master the course content. As students engaged with complex projects, we provided a range of supports, such as detailed instructions, introductory videos, and platform-specific tutorials, all of which were gradually scaled back as students became more proficient. This structured guidance ensured that students could tackle increasingly difficult material while building confidence and independence. For example, an initial project on data analytics came with step-by-step guides, but as students progressed, they were encouraged to apply what they had learned more autonomously. This scaffolding approach not only boosted students' problem-solving skills but also reinforced their ability to navigate unfamiliar tasks—a crucial skill in both academic and professional settings. Students shared several comments regarding how much they appreciated the scaffolded structure of the course and the support provided by instructors:

- “Easy to follow assignments on a weekly basis, flexibility with attendance allowed me to have a break from my classes for the day when needed.”
- “There were multiple different programs to learn and the order we took went along with our level of learning and understanding, overall perfectly timed and organized class.”
- “My instructor also walked me through a very difficult assignment. I felt confident after our meeting.”
- “Professor did a great job of helping us through the process of learning several large programs in a short amount of time, and I think that reflects on the effort on [the instructor's] part in putting together a great class.”

The coteaching model plays an important role in getting positive feedback from students about scaffolding. Students value having multiple professors available who can guide them through different programs with a variety of expertise: for example, a student wrote:

“Being a disabled student, sometimes I needed extra help, and I would wait until professor 1 was done with other students, sometimes it took me a little longer to understand what professor 1 was showing me, professor 1 was always very patient with me, and would check to see if I was doing ok, and not stuck. The teaching assistant was a great help as well! Professor 2 was great online with the videos to help explain the steps, I appreciated all three of them!!!”

Comments like those above demonstrate that the coteaching model was helpful to students, and they had access to multiple sources of support.

Authentic Assessments

One of the most valuable lessons we learned was the impact of continuous feedback and authentic assessments. Shifting from high-stakes exams to frequent, low-stakes quizzes and practical assignments provided students with regular opportunities to track their progress and adjust their learning strategies. By focusing on authentic assessments—tasks that mimic real-world professional challenges—we ensured that students were not simply memorizing facts but applying their knowledge in meaningful, professionally relevant ways. For instance, instead of summative high-stakes exams, students completed projects where they analyzed real business data or implemented industry-standard software tools to solve a problem. Our new, authentic, formative assessment approach, combined with ongoing feedback, created a more iterative learning process that allowed students to focus more on their learning without the stressful distraction of failure. As one student articulated, “[The instructor] reiterated that we have multiple opportunities for certain assignments because our goal is to LEARN not fail.”

Implementation Challenges

When we implemented a high-enrollment, asynchronous course redesign, we encountered several substantial challenges, particularly around authentic assessment, instructional support, and student adaptation to new platforms. With nearly 400 students enrolled in a shared course shell, maintaining assessment quality while managing feedback volume and grading complexity required careful planning. We faced a critical trade-off between depth of engagement and grading feasibility. To address this, we designed structured rubrics focused on essential competencies aligned with course objectives. These rubrics enabled consistency across faculty and teaching assistants while preserving meaningful learning opportunities for students.

Technology integration also posed significant difficulties. Students frequently reported confusion during the initial stages of using enterprise platforms such as SAP and Salesforce. Many struggled with unintuitive interfaces and unclear onboarding processes, especially when instructions were provided only in written form. One student commented, “Don’t assign SAP assignments without a video because it is challenging to follow through instruction documents that might lead me to a mistake, and I don’t know how to fix it.” Slack, though ultimately an effective communication tool, occasionally overwhelmed students unfamiliar with managing multiple threads and notifications. “Sometimes it was hard to keep track of where things were posted on Slack,” one student reflected, “There were a lot of channels, and I wasn’t sure if I was missing something.”

In addition to tool-specific challenges, the course's reliance on multiple platforms—including Canvas, Slack, Trailhead, SAP, Tableau, and LinkedIn—led to temporary disorientation, particularly early in the semester. Students expressed feeling overwhelmed by the number of systems they had to learn and navigate concurrently. This confusion was compounded by technical issues with platforms like Simnet, which was used for Excel assignments but criticized for being buggy and unreliable. These factors contributed to initial anxiety and disengagement, particularly among students who expected more traditional instructional models.

To address these issues, the instructional team implemented several key support strategies. We increased availability through extended virtual office hours and trained teaching assistants to offer targeted troubleshooting support. A consistent instructor and TA presence on Slack ensured that student questions were answered promptly, often within minutes, and helped establish a sense of responsiveness and care. Students responded positively to this support system, noting that “The instructors were available whenever the students had any questions and responded effectively,” and “Any problem was quickly resolved through one of the resources they provided.” We also enhanced our instructional scaffolding by creating platform-specific videos, adding step-by-step guides with screenshots, and adjusting assignment timelines when systemic issues emerged.

These interventions not only mitigated student frustration but also informed future improvements. We added onboarding videos to accompany major tools, strengthened real-time communication channels, and refined assignment instructions to be more intuitive. Our coteaching model further distributed the workload, allowing faculty to remain highly responsive while managing grading, communication, and technical support collaboratively. Over time, we observed a marked shift in student behavior—from early disorientation to increasing autonomy. Students began proactively engaging in Slack discussions, solving problems independently, and confidently navigating professional-grade software. As one student reflected, “In the beginning, I did get overwhelmed... but taking one step at a time made it easier.”

Ultimately, the implementation challenges we faced—and the iterative solutions we deployed—became a vital part of the course's evolution. These adaptations not only preserved the integrity of authentic, high-impact assessments in a large online format but also cultivated a stronger sense of learner agency, aligning with the pedagogical principles at the heart of the course redesign.

Key Considerations for Future Redesigns

Drawing on the insights gained from this redesign, we plan to modify our approach to course design and redesign in

the future, including adjusting to enhance engagement, learning, and support.

Enhancing Real-World Relevance

One of the most significant insights from this redesign was the centrality of real-world relevance in sustaining student engagement. Integrating enterprise software and other applied activities enabled students to make more direct connections between theoretical material and professional practice. This alignment between coursework and authentic contexts appeared to enhance motivation and deepen learning. In future iterations, we plan to continue emphasizing authentic, practice-oriented experiences as a means of helping students perceive the practical value of their learning.

Expanding Continuous Feedback

The transition from high-stakes examinations to a model emphasizing regular, low-stakes assessments proved highly beneficial. Frequent opportunities for reflection, practice, and feedback allowed students to monitor their own understanding and make timely adjustments. We observed that this approach reduced anxiety and cultivated a more iterative, growth-oriented learning culture. These experiences reinforced for us the importance of building assessment systems that privilege formative feedback and continuous engagement over summative evaluation.

Strengthening Scaffolding and Support

The use of scaffolding emerged as an essential strategy for supporting students' early success and long-term autonomy. Providing detailed instructions and tutorials at the beginning of the term helped students navigate complex tasks, while gradually reducing those supports over time encouraged independent problem-solving. Beyond its pedagogical value, scaffolding also contributed to relational trust between faculty and students, particularly during the early weeks of the course. This experience highlighted the dual function of scaffolding as both a structural and interpersonal framework for fostering confidence and connection.

Fostering Social Presence

The online learning context underscored the importance of intentionally cultivating social presence. Through the use of collaborative tools such as Slack, video conferencing, and peer-based assignments, we observed the emergence of a learning community that extended beyond formal course interactions. These tools appeared to mitigate the sense of isolation that often accompanies asynchronous instruction and facilitated a more collective learning experience. We have come to view social presence as an integral design element—one that requires explicit attention in future online course development.

Encouraging Knowledge Construction

We were reminded through this redesign that students learn most effectively when they actively construct knowledge rather than receive it passively. Activities emphasizing application, reflection, and self-assessment encouraged students to internalize concepts and connect them to their professional aspirations. The introduction of digital badges provided visible acknowledgment of skill mastery and appeared to enhance motivation and persistence. Moving forward, we intend to refine these mechanisms to ensure that they both recognize achievement and reinforce the development of enduring competencies.

Ensuring Flexibility and Adaptability

Finally, the experience reaffirmed the importance of flexibility as a guiding principle in course design. Structuring the course into modular units and allowing for adjustable timelines enabled us to accommodate diverse learning paces and unanticipated challenges. This adaptability proved especially valuable in maintaining student engagement and continuity of learning. We now regard flexibility not as an ancillary design feature but as a core component of sustainable and inclusive course architecture.

CONCLUSION

By concentrating our redesign efforts on refining both course content and instructional strategies, we successfully elevated the overall student learning experience. Our redesign decisions helped us create a more dynamic learning environment, where students were more invested in the material, more connected with their instructors and peers, and more actively engaged in their own learning process. Ultimately, these improvements enhanced student engagement with the course content by creating a more meaningful link between theoretical knowledge and real-world practice, better preparing students for their professional careers.

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