

## Scaffolding Repko and Szostak's *Interdisciplinary Research: Process and Theory*

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**Abstract:** This article describes curricular challenges an undergraduate, interdisciplinary program at Texas Tech University faced and how the utilization of two textbooks—*Interdisciplinary Research* (Repko & Szostak, 2017) and *Introduction to Integrative Studies* (Tanner, 2021) helped us reshape the program to meet those challenges. The department of University Studies at Texas Tech University is an undergraduate interdisciplinary program. Students choose three 18-hour areas of concentration (54 hours total) to comprise their major coursework and take 9 hours of Integrative Studies (INTS) to help them synthesize their areas in ways that make sense for their career and future plans. These 9 hours are comprised of INTS 2310 Foundations of Integrative Studies, INTS 4300 Perspectives of Integrative Studies, and INTS 4350 Capstone in Integrative Studies. Since its 2007 inception the curriculum has improved because of the program's involvement with the Association of Interdisciplinary Studies and alignment with the American Association of Colleges and Universities LEAP initiative, helping us to identify and create important resources for teaching interdisciplinarity. For example, in 2012, we changed the textbook used for INTS 4300 from *Research Methods: A Process of Inquiry* (Graziano & Raulin, 1993) to the second edition of *Interdisciplinary Research: Process and Theory* (Repko, 2012). The primary text for INTS 2310 has changed several times but has used *Introduction to Integrative Studies* since the first edition in 2015. This text provides an introduction to and overview of interdisciplinarity and integrative learning as a precursor to the more advanced handling of these concepts and practices provided in *Interdisciplinary Research: Process and Theory*. It offers useful scaffolding to students struggling to understand concepts basic to interdisciplinarity and integrative learning. In University Studies, students are now able to transfer knowledge from INTS 2310 to our more advanced courses INTS 4300 and INTS 4350, which improves their success and graduation rates and their capacity to apply what they have learned to their career and future plans.

**Keywords:** undergraduate curriculum, interdisciplinary program, integrative learning

Over the past eleven years—my story begins July, 2011—University Studies at Texas Tech University has been building an undergraduate interdisciplinary program with a focus on integrative learning and interdisciplinary research. But because the University Studies degree program was approved in 2007 prior to my hiring as its Director, there is much I do not know concerning the original intent of its founding, its development before my arrival, or the discussion around the first several courses that were created. Through reflection on my experiences and discussion of two textbooks—*Interdisciplinary Research: Process and Theory* (Repko & Szostak, 2017) and *Introduction to Integrative Studies* (Tanner, 2021)—this article tells the story of some of the challenges faced during my tenure and how these two textbooks helped us reshape the program to meet those challenges. In addition to the textbooks, we have used the resources available from the Association for Interdisciplinary Studies (AIS) and the American Association of Colleges and Universities (AAC&U) to assist us in developing meaningful curriculum that improves students' ability to synthesize their disparate curricular and co-curricular learning experiences, engage in interdisciplinary research, and apply their skills in their chosen career.

As an academic department, housed in the Office of the Provost, University Studies offers three degree programs, the Bachelor of Arts or Science in University Studies (BUS) and the Bachelor of Applied Arts and Sciences in Applied Leadership (BAAS). The department offers areas of concentration in Human Resource Development (HRDV), Mexican American and Latin(x) Studies (MALS), Organizational Leadership (ORGL), and Integrative Studies (INTS). Courses in INTS serve several student needs, including being a synthesizing component of the degree program and fulfilling graduation requirements, as well as satisfying other teaching and learning interests of the faculty and students. Because the academic department and degree program are both referred to as “University Studies,” to assist in distinguishing between them I will use “BUS” to refer to the degree program and “University Studies” to refer to the department.

## Brief Program History

The Bachelor of Arts or Science degree in University Studies (BUS) is a 120-hour interdisciplinary undergraduate program. Students choose three 18-hour areas of concentration (54 hours total) to comprise their major coursework and take 9 hours of Integrative Studies (INTS) to help them synthesize their areas in ways that make sense for their career and future plans. These 9 hours are comprised of INTS 2310 Foundations of Integrative Studies, INTS 4300 Perspectives of Integrative Studies, and INTS 4350 Capstone in Integrative Studies.

The degree was first approved by the Texas Higher Education Board in 2007 (see Figure 1) and would serve Texas Tech University as a degree

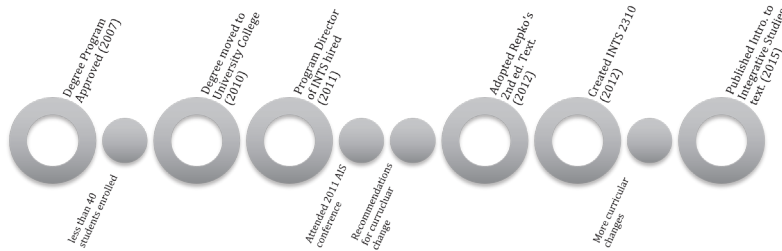


Figure 1. History of University Studies program.

completion and retention strategy. At the time the program had fewer than 40 students enrolled. In 2010 the degree was transferred from the Office of the Provost to a new experimental college, University College. At that time there was a concentrated effort to help students complete their degree at Texas Tech University but do so in a meaningful way through the degree in University Studies. Prior to any specific curriculum development, students were required to write an essay describing why they chose the BUS degree program, their selected areas of concentration, and how they might apply their degree to their future plans. Through these efforts to help students complete their degree, the program grew quickly and exponentially. For example, in the Fall of 2010, University Studies (which is the degree within which students take INTS courses) had 33 students enrolled, in Fall 2011, 476 students, and in Fall 2012, 970 students. As of this writing, University Studies remains in the top 10 of all programs at Texas Tech University, in terms of student enrollment with 745 students. For the size of program, we have relatively few full-time faculty (9), serving the majority of our students with adjunct faculty (depending on the need, anywhere from 25 to 35).

In the spring and summer terms of 2011 an interim Dean and Associate Dean were named to University College, and I was hired as the new Director of Integrative Studies. In summer of 2011, there were three Integrative Studies (UCIS) courses already approved—a research methods course (UCIS 3300), an internship course (UCIS 4320), and a capstone course (UCIS 4350). These courses were initially and primarily designed to enable students to meet graduation requirements. While course descriptions referenced “interdisciplinary” and “integrative” the course content and textbooks did not reflect these concepts. For example, the internship course was variable credit which allowed students who only needed one credit to complete their degree or could be substituted for 3 to 6 hours in an area of concentration. The other two courses were coded as junior (3000 level) and senior (4000 level) because these were the level of credits students needed to complete their degree. The primary responsibility for me, as the new Director of Integrative Studies, was to develop the curriculum for a very diverse student body. More than half of the students

enrolled in the BUS program are considered non-traditional. They are over the age of 23 and place bound, meaning they are not located near a Texas Tech University campus. In addition to all the other challenges we would face while developing a new curriculum, we would need to develop it for online delivery (I am not focusing on this particular challenge in this article).

Almost immediately, it was recognized that interdisciplinary and integrative curriculum was not a concept anyone was familiar with or ready to implement. In preparation for fall 2011, one new course was approved, and the three existing courses were redeveloped while 476 students were enrolled in the BUS that term. More about the curriculum development is discussed below. However, it is important to say here the three UCIS courses were developed primarily to meet graduation requirements not to synthesize the curriculum (that is, they were not aspiring to be genuinely integrative). Further, it was very evident to me, as the new Director, that student learning outcomes and texts were not aligned to the existing course descriptions. As mentioned above, key words such as “interdisciplinary” and “integrative” existed in the course descriptions but that’s as far as it went. Clearly whoever designed the initial courses did not have a good grasp on what it meant to be interdisciplinary.

I was hired because of my experience in online teaching and learning, not because I had expertise in interdisciplinary studies. But because I felt I had to remedy the disconnect between the actual curriculum and what it purported to be, I had to seek out additional information on the field of interdisciplinary studies. At the 33rd annual conference (October, 2011) for the Association of Interdisciplinary Studies (formerly Integrative Studies), my colleagues and I were introduced to many helpful resources and people. But perhaps one of the most helpful was *Interdisciplinary Research: Process and Theory* (Repko, 2012). The information gleaned from this conference would significantly help shape the future of the Bachelor of University Studies (BUS) program at Texas Tech University. One of the cornerstones of this future would be to transform the existing UCIS curriculum into the synthesizing component of the interdisciplinary degree program while continuing to serve the degree completion needs of struggling students. Because students chose three areas of concentration (18 hours each) to comprise their major, we wanted them to be able to synthesize those areas in meaningful ways. This was one of the central reasons for the redevelopment of the UCIS curriculum.

## Struggling Students

There were several ways in which students enrolled in the University Studies program were struggling. One way was earning enough credits—an obvious concern with a degree-completion program. Students struggled to earn

enough credits to graduate from a single program (i.e., they did not have enough program credits) and they struggled to earn credits to graduate from Texas Tech University or another state institution in general (120 credits) prior to leaving the institution. Furthermore, there was a statewide effort to help people who had left behind their educational aspirations to return to a Texas institution to complete their degree. Many of the students enrolled in the BUS program were very close to graduating or had more than enough credit hours to graduate from Texas Tech University, but the accumulated hours were from multiple degree programs or transfer courses from other institutions. The BUS degree was a mechanism that allowed students to transfer credit hours from other institutions and university programs that would be appropriately categorized into areas of concentration. The advising component of University College (four advisors) was amazingly adept in helping students in this way. As of this writing, University Studies has more than 150 areas of concentrations for students to choose from.

Another problem students were struggling with was to make meaning of their University Studies degree. Students were not able to provide a cohesive description of the degree they were earning or how it might relate to their career and future plans. They were having trouble understanding how to synthesize these disparate credits into a meaningful degree program. They also struggled to have coherent conversations with parents and potential employers about their education. For example, many students did not want to admit they earned a degree in University Studies as it felt somehow “less than” a “real” degree. And to be clear, other administrators and degree programs at the institution viewed it as such. Many administrators saw the degree program as some “catch-all” degree that had no real meaning. Students, parents, and administrators alike wondered what one with a University Studies degree could do after graduation. There was an intense struggle to help the institution, students, and potential employers understand the value and meaning of a University Studies degree. We needed to be able to find a way to help students make meaning of the degree and then to tell their stories.

A related problem was that students were struggling to understand the basic concepts and vocabulary relevant to interdisciplinarity and integrative learning. As an example, when asking students to describe their “disciplinary perspectives” in an assignment, instructors would often receive discussion on childhood experiences of being spanked, grounded, or otherwise punished in some way. This illustrated to faculty that there was a clear need to help students be able to define terms such as discipline, interdisciplinary, integrative, etc. Our teaching experience also helped us understand that without scaffolding, our student population would struggle in understanding interdisciplinary research processes, much less applying them to complex problems.

We needed to update the original plan for Integrative Studies courses which was to serve student advising needs (advisors help students navigate

the paperwork necessary to qualify for a degree). Participation in the Association for Interdisciplinary Studies (AIS) would become an incubator for change in the University Studies degree program and department. For example, it was collegial discourse during workshop presentations, dinner tables, and the development of friendships that helped us understand typical barriers to offering interdisciplinary degree programs at other institutions. Typical barriers are often highly politicized as discussed by Tanya Augsburg and Stuart Henry (2009) in *The Politics of Interdisciplinary Studies*. I attended conferences and started applying the relevant lessons learned. Collectively, we were able to ask questions about what we wanted to create out of what we inherited (rather than only figuring out how to make something that already existed work). We were also looking to the literature produced by AIS in its journal *Issues of Interdisciplinary Studies* for information that might help us learn from others' successes and struggles. It is incredibly difficult to put into words what general conversation among colleagues about what was happening in their programs across the U.S. meant to the development of University Studies. These broad but deeply meaningful interactions at a conference were the catalyst for thought and experimentation that assisted the faculty in the continuous development of the BUS degree program.

Perhaps one of the most innovative ideas produced from our incubation was to develop a series of required courses that focused on interdisciplinary research and integrative learning. The existing (inherited) Integrative Studies courses were recreated entirely to become the synthesizing component to the University Studies degree. The goal was for students to learn how they might integrate the areas of concentration they had chosen for themselves through interdisciplinary academic projects and in work after graduation. But the challenge of degree completion remained: There was a balancing act between degree completion (choosing areas that may not make sense but were the easiest paths to graduate) and helping students make meaning from disparate connections. While the majority of student credit hours were generated in other colleges and departments, these required hours from the revamped courses were generated in our department. This was incredibly meaningful because we now had a way to generate revenue (in our budgetary situation, a portion of revenue generation was returned to the department that owned the course). Revenue generation assisted us in overcoming many of the obstacles interdisciplinary programs often face. So, now in 2011, we had a way to generate revenue and could hire our own faculty (full-time and adjunct). The next challenge was focusing on modifying the curriculum in ways that helped students make meaning of their interdisciplinary education. We would utilize Integrative Studies courses to help students make connections between their curricular and co-curricular experiences, understand, and apply an interdisciplinary research process to a complex problem, and be able to market their interdisciplinary experience

to potential employers. The original three UCIS courses would be insufficient to help us achieve these goals.

## Major Curriculum Updates

One of the first changes we made, and the change most relevant for this article, was to change UCIS 3300 Perspectives on Integrative Studies. This course would eventually become the hub from which all other curricular changes would radiate. It was pivotal to get this course right. UCIS 3300 was already in place and did not focus students' attention on research, interdisciplinary research, or integrative learning. The original course description we inherited sounded like a truly interdisciplinary and integrative course.

*Original Course Description:* Covers methods of disciplinary integration, orientation to interdisciplinary expectations, and standards in academic and professional organizations. May be substituted for 3 hours in area of concentration. (Writing Intensive)

Sounds good but there was no required text, and the course content did not add up to the description. Since there was no text, we added one (quickly) for our first iteration of this course in fall 2011. Remember that I wasn't hired as the Director for Integrative Studies until July 2011, which meant much of the initial activity happened in a month and 25 days. We chose a basic research methods text for this course—*Research Methods: A Process of Inquiry* (Graziano & Raulin, 1993)—which had no focus on interdisciplinary research. The course content we inherited included a handout on Szostak's 12-step interdisciplinary research process (Szostak, 2002) and one lesson on "What is Integrative Learning," with no reference material.

While the small faculty and staff struggled to understand interdisciplinarity and integrative learning, it became clear in this first term that students also could not understand what we hoped they would. None of us really understood the field of interdisciplinary studies, much less that a thriving field existed. In some sense of desperation, I began with a simple Google search using the terms integrative and interdisciplinary which led to a link for the 33rd annual conference for the Association for Integrative Studies (now Association for Interdisciplinary Studies).

As mentioned above more generally, AIS helped fuel our work in transforming our curriculum. Specifically, it was at the 33rd AIS conference in Michigan in 2011 where I met Bill Newell, the Executive Director of AIS, as well as many other colleagues in the field. Most relevant to this article is author Allen Repko. I attended Repko's session on the upcoming second edition of his book *Interdisciplinary Research: Process and Theory* (2012). I also attended one of the main sessions where the discussion to change the organization name from

the Association for Integrative Studies to the Association for Interdisciplinary Studies took place. Perhaps more than anything else, these two sessions at the 2011 conference prompted thoughtful discussion within our two-person faculty about potential changes for this budding program at Texas Tech University.

During the fall 2011 term, just after the 33rd AIS conference, Gail Bentley (the only other full-time faculty member for University Studies at the time) and I collaborated with the Associate Dean and the advising staff mentioned above on recommendations for curricular changes. For example, we recommended a course prefix change from UCIS to INTS. UCIS was not indicative of the integrative program we were working toward. Additionally, based on our recent AIS experiences and associated research, we recommended sweeping changes of existing course offerings and potential new courses, described in more detail below. One of the greatest teaching and learning challenges we faced at the time was helping students understand the basic concepts of an interdisciplinary and integrative curriculum. To make the program truly integrative with a focus on interdisciplinary research, we needed to make some major changes to the curriculum and structure of the University Studies degree program.

### Use of Repko *Interdisciplinary Research: Process and Theory*

Attendance at AIS, student evaluations, and early course reviews by faculty, were indicators that we needed change as soon as possible. As discussed above, Gail Bentley and I we now had knowledge we could apply from interdisciplinary studies and integrative learning. We also now had a text around which we could build a quality course. After one term (fall 2011) of teaching the existing UCIS 3300 course, we also now had student evaluations and instructor feedback from adjuncts teaching the course. First, we changed the text to the second edition of Repko's (2012) *Interdisciplinary Research: Process and Theory*. Bentley, mentioned above, became the course coordinator for UCIS 3300 and the primary developer of the course's future content. By utilizing this text, we were able to provide a structure for helping students understand interdisciplinarity and interdisciplinary research. A synopsis of how the course description and student learning outcomes (SLOs) changed over the years is presented in Table 1.

There were a number of administrative changes to course prefixes and sequencing, some of which is explained throughout this article. As this course became the center of the Integrative Studies area of concentration, it is important to provide a bit more detail in terms of the changes made. For all UCIS courses the prefix was changed to INTS to make a connection between the concept of Integrative Studies and courses students would take. UCIS 3300 Perspectives on Integrative Studies became INTS 3300 Perspectives on



Table 1. Changes to course descriptions and student learning outcomes for UCIS 3300 to INTS 4300 for years 2011, 2012, 2019.

2011		2012		2019	
Course Description	Student Learning Outcomes (SLOs)	SLOs (same course description)	Course Description	SLOs	
Prerequisite: UCIS 2310. Covers methods of disciplinary integration, orientation to interdisciplinary expectations, and standards in academic and professional organizations. May be substituted for 3 hours in area of concentration. (Writing Intensive)	<ol style="list-style-type: none"> <li>1. Identify how past learning has occurred and how future learning can occur from personal experiences and self-expression;</li> <li>2. Describe the ways in which perceptions influence learning;</li> <li>3. Define components of interdisciplinary research and learning;</li> <li>4. Describe how different methods of inquiry reveal different solutions to the same problem;</li> <li>5. Apply integrative perspectives to identify personal and professional goals;</li> <li>6. Apply principles of interdisciplinary learning to the selection of personal areas of concentration.</li> </ol>	<ol style="list-style-type: none"> <li>1. Define components of interdisciplinary research and learning;</li> <li>2. Describe how differently methods of inquiry reveal different solutions to the same problem;</li> <li>3. Apply integrative perspectives to utilize critical thinking for solving interdisciplinary questions;</li> <li>4. Apply principles of integrative learning to integrate knowledge from various disciplines on similar topics</li> <li>5. Propose and address an interdisciplinary project.</li> </ol>	Prerequisites: Completion of INTS 2310 with a C or better. INTS 4300. Online course. This course introduces how interdisciplinarians investigate complex issues in the real world, and how that differs from disciplinary inquiry.	<ol style="list-style-type: none"> <li>1. Understand the concept of disciplinary perspective,</li> <li>2. Determine when to use an interdisciplinary approach</li> <li>3. Identify disciplines that are most relevant to an issue under examination</li> <li>4. Critically analyze disciplinary insights using interdisciplinary techniques</li> <li>5. Demonstrate appropriate written content of the implementation of interdisciplinary techniques</li> </ol>	

Integrative Studies. We also made changes to the course purpose, student learning outcomes (as seen in Table 1), and the entire course learning schedule. The new course description became

*New Course Description:* Provides students with an introduction to interdisciplinary research. Covers expectations of interdisciplinary methods of inquiry and problem solving. May be substituted for 3 hours in area of concentration. (Writing Intensive)

We now had a good course, required of all students seeking this degree, that focused on helping students understand an interdisciplinary research process and had a text for framing that understanding.<sup>1</sup> This change in the course highlighted other challenges that would need to be addressed.

Over time, we would make several other important changes to this course that would be helpful to students. For example, in keeping with degree completion initiatives and institutional expectations mentioned above, we renumbered this course to be a senior level course (most students came into the program as juniors or seniors). INTS 3300 Perspectives on Integrative Studies, the key course we have been discussing, became INTS 4300 Perspectives on Integrative Studies. We would also change the primary learning assignment in this course several times to become what it is now: developing a senior thesis comprised of the first six of ten steps of the Interdisciplinary Research Process (IRP) as described by Repko (2012). And we made changes to the entire program that would further scaffold students' understanding and application of interdisciplinarity and integrative learning, such as providing several complex problems that students could choose from as they developed their senior thesis.

But identifying complex problems to work on as a research project became a significant challenge. In the beginning, students were working on an interdisciplinary research project only in what was now called INTS 4300. Having students attempt to tackle this project in one course, over one semester term, was problematic. Even though we were providing several potential complex problems to students, they were unable to complete the project as expected (that is, through Step 6 of the IRP "Analyze the problem and evaluate each insight or theory"). Because the INTS 4300 course was focused on interdisciplinary complex problem solving and used the Repko, and later Repko and Szostak (2021), Interdisciplinary Research Process model, the faculty collectively made the decision to break up the IRP model over the three required courses.

In INTS 2310 Foundations of Integrative Studies (to be discussed in the next sections), students would choose from a pre-approved list of complex problems or identify their own and complete steps one through three of the

<sup>1</sup> Because the program was online, we used a master course model where all sections of the course were developed by either myself or Gail Bentley. As the faculty numbers and course offerings grew, other full time faculty would become subject matter experts to develop courses. This helped us teach small sections of courses using adjunct faculty.

Interdisciplinary Research Process (IRP) (Identify a complex problem, Justify an ID approach, Identify relevant disciplines). In INTS 4300, students would revise their work from 2310 and complete steps four through six (Literature search, Develop disciplinary adequacy, Analyze the problem and evaluate insights). Finally, in INTS 4350 students would make further revisions to their work from the final paper in 4300 and complete steps seven through ten (Identify conflicts between insights, Create common ground, Construct integration, Reflection and communication) to construct a final thesis and give an oral presentation. While the entire process remains challenging for undergraduate students, we have seen a small improvement in graduation rates and overall grades. For example, our six-year graduation rate for fall 2011 was 56% with an increase to 57.6% in 2015. One other critical change, mentioned above and which occurred over time, was the development of a new course, INTS 2310 Foundations of Integrative Studies, which is the focus of the next section.

## Introduction to Integrative Studies

Because INTS 4300 was the hub or backbone of the curriculum, significant changes in INTS 4300 highlighted additional challenges for students. One of these challenges was that students did not have a basic understanding of interdisciplinary and integrative studies. We were led to ask a fundamental question: How could students understand an interdisciplinary research process if they have no foundation for understanding interdisciplinarity? Though the second edition revisions in Repko's text made it more user friendly in general, as revisions usually do, our students were still struggling with basic concepts related to interdisciplinarity. Because of this difficulty, in 2012 we created a new required course—INTS 2310 Foundations of Integrative Studies—that would serve as pre-requisite for INTS 4300 (and 4350). There would now be three required courses for the University Studies degree. INTS 2310 would introduce students to the concepts related to interdisciplinarity, interdisciplinary research and integrative learning.

The purpose of INTS 2310 is to introduce students to the foundations of interdisciplinary studies. In this course students will learn the developmental process of interdisciplinary studies, the fundamentals of interdisciplinary research, and the integration of personal, educational, and professional goals. This course is designed to provide students with the essential principles of interdisciplinary studies that will serve as the foundation for their future careers in the professional field of their choosing.

As with other courses in our curriculum, this one too has been revised several times since we first offered it. Several revisions are important to note for this article. The first was the creation of the textbook *Introduction to Integrative Studies* (Tanner, 2015), now in its third edition (Tanner, 2021). This

Table 2. Changes to student learning outcomes (SLOs) for INTS 2310 in years 2012, 2016.

	2012	2016
Course Description	SLOs	SLOs
This course prepares students for success in the Integrative Studies Program by providing the foundations of interdisciplinary studies and the fundamentals of interdisciplinary research.	<ol style="list-style-type: none"> <li>1. Clearly define interdisciplinary studies and its characteristics.</li> <li>2. Explain the relationship between traditional disciplines and interdisciplinary studies including advantages and disadvantages.</li> <li>3. Identify components of interdisciplinary research and learning.</li> <li>4. Apply principles of interdisciplinary learning to the selection of personal areas of concentration.</li> <li>5. Define “disciplinary culture.”</li> <li>6. Demonstrate the creation of a personal portfolio.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clearly define interdisciplinary studies and its characteristics. (2012 SLOs #5 and #6 now covered here)</li> <li>2. Explain the relationship between traditional disciplines and interdisciplinary studies including advantages and disadvantages.</li> <li>3. Identify components of interdisciplinary research and learning.</li> <li>4. Apply principles of interdisciplinary learning to the selection of personal areas of concentration.</li> </ol>

text was developed primarily through the INTS 2310 lecture content, in class discussion, and collaboration with students.

As I was creating the first edition of *Introduction to Integrative Studies*, students used sections of a draft of the text and provided feedback, a process which I discuss below. At the same time, I served as the primary developer of this introductory course. Over the first two years, much of the literature from the AIS journal *Issues in Interdisciplinary Studies* served as the impetus for course content. And other AIS scholars were instrumental in the development of the course content. For example, at the 2012 Interdisciplinary Teaching and Learning Conference hosted by Michigan State University, I discussed the development of this course with Tanya Augsburg. She was the first to recommend that I develop the book we needed.

As the lecture content for this course was developed over the next three years (2012–2015), I transformed it into a chapter format and changed the course from an in-class format to a hybrid model. The hybrid model would present lecture content and early drafts of book chapters online. Then, during the on-campus class time, students would engage in small group discussion and relevant activities centered on the chapter/lecture content for the day. At the end of each class period students were provided an opportunity to provide

early feedback on chapter/lecture content and discussion activities. I used this feedback to revise the work on the text. In 2014, I provided a full-length draft of the manuscript as a free text to students and again asked for their feedback throughout the term. Students provided general editorial feedback as well as features they would like to see in the text. For example, students asked for more illustrations and examples, and for more information about career development. I used this feedback to finalize the manuscript and submit for publication. The text primarily focuses on framing interdisciplinary studies and integrative learning for students in the University Studies degree program at Texas Tech University by introducing them to applicable concepts, theory, research, and career perspectives (but the text is used beyond Texas Tech). Also in this course, students are led through the first three steps of the IRP as mentioned above.

In part, because students are required to take this course, we are now seeing students complete INTS 4300 and 4350 courses with higher grades and our retention rate has increased. For example, in fall 2011 the one-year retention rate for University College was 73.3%. For fall 2020 our rate was 80.9%. It is our view that because students are using Repko and Szostak (2021) and Tanner (2021) to understand interdisciplinarity, integrative learning, and interdisciplinary research, they are succeeding at higher levels than before.

## Assessment of the Program

It seems appropriate to discuss program assessment. It is my opinion that we did not have a strong assessment tool. In fact, it would be many years before we had any kind of formal assessment tool. This is one reason why this section appears at the end of this paper rather than integrated within the body above. While AAC&U developed the VALUE rubrics (open educational resources for assessment of student work) in 2009 and 2010 (Rhodes, 2010), we did not begin to utilize them until the creation of INTS 2310. And it wasn't until fall 2015 that we understood the value of the rubric on Integrative Learning and how it could help us better assess the interdisciplinary program we had created. We used this rubric in two primary ways. The first was to revamp the entire INTS curriculum to incorporate relevant milestones into the course itself through assignments and in other ways. The VALUE rubric on Integrative Learning (Association of American Colleges and Universities (AAC&U), 2009) is now introduced to students in INTS 2310 as a way to help them visualize what we want them to accomplish given their time in University Studies. The second way we incorporated this rubric was to develop a program level assessment tool. We revised our program outcomes to these:

1. Students will be able to *meaningfully synthesize* connections among experiences outside of the formal classroom such as internships and service learning.

2. Students will be able to *independently synthesize* or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.
3. Students will be able to adapt and apply skills, abilities, theories, or methodologies gained in one situation to new situations *to solve difficult problems or explore complex issues in original ways*.
4. Students will be able to communicate in *ways that enhance meaning through multiple* formats, i.e., language or other visual representation, making clear the interdependence of language and meaning, thought, and expression.
5. Students will be able to *envision a future self* (and possibly makes plans that build on past experiences) that have occurred across multiple and diverse contexts.

We use the major assignments in the INTS core (2310, 4300, 4350) to assess student's progress on these outcomes. Additionally, we provide both students and faculty a survey at the end of each term where we collect self-reported data on how students meet expected outcomes from the VALUE rubric on Integrative Learning (AAC&U, 2009). The data we have gleaned from these reports have largely supported each of the curricular changes we have made over the last six-year graduation cycle.

The major curricular changes and their observed impact have already been briefly discussed. Readers may find interesting other curricular changes and their impact on students. University Studies, since 2011, has been heavily focused on helping students apply their integrative learning experiences to potential career and future plans. In this context, we created an optional new course, INTS 3301—Career and Professional Development, dedicated to career and professional development for our interdisciplinary students. The course helps students frame their interdisciplinary education in language that is meaningful to current and potential employers. We help them craft a cover letter, resume, elevator pitch, and a portfolio. The portfolio is divided up into several different parts and students complete portions of it throughout their program but finalize it in INTS 4350 Capstone.

As career and professional development has been another cornerstone of our program, we also created several other courses that could help students learn skills that are valued by employers. Two of our most popular courses are INTS 3330 Global Perspectives and INTS 3350 Team Leadership. Neither of these courses are required for students yet we often teach multiple sections of each of these courses every term.

We have attempted, with some marginal success, to provide other learning opportunities for our students. For example, both INTS 2310 Introduction and INTS 3330 Global Perspectives have been taught as service-learning courses with approved instructors. At Texas Tech University, service-learning

courses include a component that engages students by applying their learning, often to community projects. In INTS 3330, there were several terms where students partnered with an organization in Tanzania, Africa. The organization was teaching English as a second language and training teachers. One of the identified problems was that most Tanzanian students were being taught in the native language of Swahili by their teachers but required to take national standardized tests in English. Our student learning groups helped develop training materials for young students equivalent to U.S. grades kindergarten through second grade. In our introductory course INTS 2310, one of our full-time instructors partnered with a local organization focused on helping to reduce rates of human and sex trafficking. In part, working with these organizations led us to revamp our core curriculum of INTS 2310, 4300, and 4350 (the three required courses for University Studies students) to include more opportunities for learning outside the classroom. Specifically, we want to encourage students to apply interdisciplinarity to complex community problems. We saw this as one way to be truly integrative.

## Conclusion

This article has told the story of an interdisciplinary and integrative program at Texas Tech University which was, at first, not interdisciplinary or integrative. It became both in the context of two developing textbooks and the Association for Interdisciplinary Studies, as well as other sources of information and advice. I have especially highlighted, through reflection, my experiences with the two textbooks—*Interdisciplinary Research: Process and Theory* (Repko & Szostak, 2017) and *Introduction to Integrative Studies* (Tanner, 2021). For our program, they complement each other in a way that allows our students to progress in doing interdisciplinary research as beginners (the Tanner book) and more advanced students (the Repko and Szostak book). My hope is that other program directors who find themselves in the position I was in will find my reflections hopeful and practical.

The development of the University Studies program at Texas Tech University has been an exciting journey. To go from a relatively unknown program on campus with fewer than 40 students to one of the largest degree programs at Texas Tech University has not been without its challenges. We are grateful for the opportunities we have been provided to build such a program. We believe we have been able to utilize the resources of AIS and AAC&U to develop a framework for undergraduate integrative learning and interdisciplinary research that has value for our graduates. It is rewarding to now hear from alumni of how the work we have been doing over the past decade has helped them do exciting things in their communities and careers, in part because they are able to leverage their integrative learning and interdisciplinary research skills.

## Biographical Note

**Marcus Tanner**, PhD, is the Owner and Clinical Director for HealingChoice Family Therapy. He formerly held the position of Assistant Professor of Practice and Director for the department of University Studies at Texas Tech University in Lubbock, TX. Dr. Tanner's education and life experiences are interdisciplinary; earning degrees in Church Ministries, Early Childhood Education, and Human Development and Family Studies. His research interests include the interaction of work and family, work and health concerns, and trauma. Dr. Tanner has published primary research on forced termination of clergy and its effects on clergy and their families. He is the author of *Introduction to Integrative Studies* and co-editor of *Perspectives in Interdisciplinary and Integrative Studies*. His research publications can be found in peer-reviewed academic journals as well as trade publications and organizational newsletters. His specialties include Counseling, speaking, teaching, employer relations, university career office counseling, non-profits, career and professional development, academic research, consulting, and student affairs. He can be reached at [marcus@healingchoice.org](mailto:marcus@healingchoice.org).

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