DESIGN PHASE REPORT (PHASE II)

June 2024

Artificial Intelligence, Cyber, Computing, and Data Science Planning Advisory Task Force

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Executive Summary

UTSA is pioneering the future with an ambitious initiative that aims to redefine the landscape of artificial intelligence (AI), cybersecurity, computing, and data science. In January 2024, Provost and Executive Vice President for Academic Affairs Heather Shipley launched a task force, co-chaired by Jonathon Halbesleben, Dean of the Alvarez College of Business, and Jianwei Niu, Interim Dean of University College and Interim Executive Director of the School of Data Science, to lead a planning exercise to establish the new college.

The AI, Cyber, Computing, and Data Science Planning Advisory Task Force was charged with 1) considering the landscape of UTSA student interests, regional, state, and national workforce needs and partnering opportunities, and multidisciplinary research opportunities; and 2) recommending one or more college organizational structures that align AI, cyber, computing and data science related programs to enhance student success, career readiness, partnering opportunities, transdisciplinary research, and funding competitiveness.

This group broke their work into two phases. The information gathering phase (i.e., “Phase I”) spanned from February to April 2024 and is detailed in the Phase I report. Since then, the task force has completed the design phase (Phase II), during which the task force was broken into smaller subcommittees that were responsible for designing conceptual models for the new college informed by the data and input gathered during Phase I. These models were shared with the campus community during two Campus Forums on April 25, 2024, and are detailed in the following report.

Introduction

Initiative Background

UTSA is an early adopter of cutting-edge disciplines, as evidenced by the launch of its School of Data Science in 2018—one of only three such schools in the nation. Now, as opportunity and interest in fields such as AI, computer engineering, computer science, cybersecurity, data analytics, statistics, and data science increase, so do UTSA's efforts. In January 2024, Provost and Executive Vice President for Academic Affairs Heather Shipley launched an initiative to envision a new college, harnessing the exponential growth in these fields to propel our students and researchers into a future of limitless possibilities, to:

- Better prepare students for the evolving landscape of these fields,
- Increase visibility and synergies among programs, and
- Leverage expansion opportunities in downtown San Antonio, solidifying UTSA's presence.

Task Force Charge and Process

The AI, Cyber, Computing, and Data Science Planning Advisory Task Force ("task force"), which included UTSA faculty, staff, and student representatives, was co-chaired by Jonathon Halbesleben, Dean of the Alvarez College Business, and Jianwei Niu, Interim Dean of University College and Interim Executive Director of the School of Data Science. External facilitator Shannon Heuberger (Heuberger Strategies) and four resource members (pp. 3–4) supported the process through facilitating meetings, coordinating logistics, facilitating communications, and connecting task force members with resources upon request.

The task force was charged with the following:

1. **Phase I (Information Gathering):** Consider the landscape of UTSA student interests, regional, state, and national workforce needs and partnering opportunities, and multidisciplinary research opportunities related to AI, cyber, computing and data science — from science to policy.
2. **Phase II (Design):** Propose conceptual models for a college organizational structure that aligns AI, cyber, computing and data science related programs to enhance student success, career readiness and partnering opportunities, transdisciplinary research, and funding competitiveness.

Phase I Key Findings

Phase I occurred from January through March 2024, with the findings shared during a Campus Forum on April 3, 2024, and detailed in the Phase I report.

The findings from Phase I were key inputs as the task force began Phase II. Because these findings were instrumental in guiding the task force's thinking during this phase of the process, key points from those findings are included below:

Identity Subcommittee

The Identity Subcommittee explored the UTSA landscape relative to AI, cyber, computing, and data science, looking at who we serve, our strengths and current offerings related to academics and research, and opportunities/gaps. This group found that the new college could have national impact through:

Providing broad access to emerging disciplines

- Since UTSA has significant first-generation and transfer student populations, the new college can serve a broad and varied group of students; broadening participation in STEM fields could be an important value for the new college.
- Considering course/program modality and creating smooth pathways for transfer students will be two important ways of supporting access.

Integrating our existing capabilities to build a strong foundation for interdisciplinary research and curriculum

- Interdisciplinary research among faculty in these disciplines is already a core value and part of our identity, so the new college should continue building on and supporting this collaboration.
- Flexibility in curriculum (e.g., leaving room for minors and certificates, cross-listing of courses) should be a priority to be truly interdisciplinary.

Leveraging the opportunities that exist in downtown San Antonio

- Strategically locating the college downtown puts us in the best position to both expand a global market and continue to build our regional workforce.
- Ensuring students, faculty, and staff have adequate services downtown, as well as easy access to UTSA's other campuses, will be important to ensuring these groups feel a shared sense of identity and connection with the rest of UTSA, as well as to foster cross-college collaboration.

External Partnerships Subcommittee

The External Partnerships Subcommittee surveyed the landscape of key external partners, sponsors, and resources, to identify ways that UTSA can partner with and serve its surrounding communities at every scale. Key findings included:

Job Demand and Forecasting:

- There is an overall and continually increasing demand for Data Science, Computing, and Cyber Security related jobs, and ten-year forecasts indicate that the demand will continue to grow in all areas.

- Texas remains to be one of the top 5 states which offer most jobs in these fields in 2023. The most jobs offered in 2023 among these three fields are for Computing related jobs.

Community Partner Feedback:

- Employers see value in earlier and more continuous revisiting of career readiness beyond the degree and emphasized graduates should have business and soft skills in addition to technical skills.
- Community partners are enthusiastic about the new college and would like to be highly involved as partners.

External Funding Analysis:

- Robust funding opportunities exist for artificial intelligence, computing, and cybersecurity, with major federal funding partners for these areas for UTSA historically including National Science Foundation, Department of Homeland Security, Department of Defense, and the Department of Energy.
- External funding for the advancement of data science is more complex given its inherently interdisciplinary nature, with more opportunities targeting data science-enabled research than data science alone.

Peer Models Subcommittee

The Peer Models Subcommittee researched peer institutions, seeking innovative ideas, trends, and ideas for areas where UTSA can build on and/or differentiate from with the new college/institute.

This subcommittee identified three general models that exist in the current institutional environment.

- **Consortia/Schools**: A consortium of innovative research labs, often funded by external corporate and government partnerships, with graduate degree programs and professional certificates offered to external partners.
- **Cross-Disciplinary Departments**: Schools/colleges with campus-wide reach, primarily through minors and certificates that allow students across the university to “skill up” and complement their current degree with data science, artificial intelligence, machine learning, and/or applied programs in these fields.
- **Colleges**: Colleges with new curriculum/catalog, undergraduate/graduate degree programs; external partnerships are bidirectional, providing mentoring and recruitment opportunities to students.

Our analysis has indicated that the following factors have been critical to the success of the peer models that we investigated.

- **Institutional funding:** Human resources/staffing and technology infrastructure (servers, computing power) are significant, partially to support the data-intensive

work of the research labs, partially to confirm commitment to innovation and sustainability to external partnerships.

- **Focus on sustainability**: An ongoing and significant commitment *to be and remain* cutting-edge and relevant is a priority, based on robust institutional resources and agile processes such as the cultivation of innovative collaborations in education, industry, and research.
- **External partnerships**: Research-lab funding on emerging topics, employee upskilling through certificates, and recruitment pipelines are priorities.
- **Internal collaboration**: Community building with other colleges across the university is a key goal, with a wide variety of minors and certificates open to all, and support for faculty to collaborate across colleges, possibly serving in joint appointments.

Design Phase Process

At the conclusion of Phase I, the task force was re-shuffled into three design subcommittees, and each was tasked with developing one or two conceptual models for the new college informed by the data and input gathered during Phase I. Each subcommittee developed its model(s) over the course of two, three-hour meetings.

Each subcommittee discussed a variety of possibilities, though consensus in a subcommittee was required to formally propose and develop a model. Two subcommittees submitted one model each, and the third subcommittee submitted two models. After each subcommittee finished its work, the full task force reconvened to share and discuss the four resulting models.

The models were shared with faculty, staff, and students on April 25, 2024, at two campus forums, which participants could join in person on Main Campus and at San Pedro I or virtually over Zoom. During these sessions, task force members shared the four models, and participants could ask questions or share feedback. The task force then met with Provost and Executive Vice President Heather Shipley on May 6, 2024, to brief her on the four models.

Conceptual Models

This section details the four models put forth by the task force, including text and graphical descriptions of each model, as well as benefits to faculty, staff, and students, potential risks and mitigation strategies, and possible alignment opportunities with external partners.

The models represent a spectrum of possibilities: while some models include features that closely resemble existing structures, others represent a more significant departure. Though they are presented as four distinct models, elements that appear in some may easily be adapted or combined with others.

When reviewing the models, keep in mind that **no academic programs are being eliminated as part of this process.**

The degrees and programs specifically included in one or more of the diagrams are representative samples of programs that *may* be moved rather than a comprehensive, definitive list; in some cases, similar programs were omitted from a diagram for simplicity and clarity. In other words, additional degrees/programs not necessarily included in each diagram may also be considered to be moved.

The end of this section includes a summary of other models that were considered but were ultimately deemed less feasible than the four models that were put forward. These came up during subcommittee meetings and either became less appealing upon further exploration by the subcommittee or were of interest to some, but not all, members of the subcommittee.

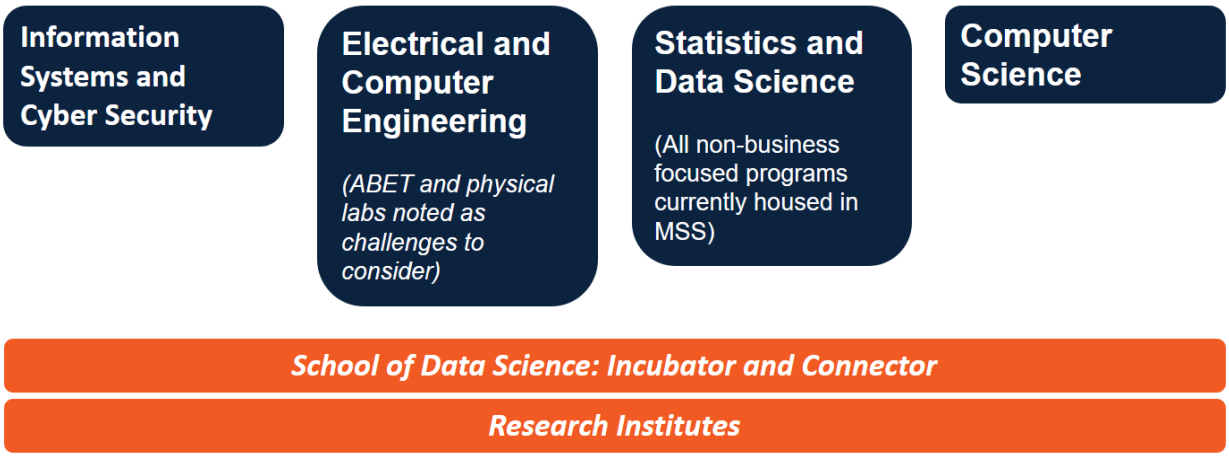
Finally, these models were developed within the context of a high-level visioning exercise that represents only the first phase of establishing the new college. As such, the task force's focus was on big-picture thinking, and details related to implementing any of these models (or features from multiple models) will be addressed in more specific terms during future planning phases.

Model A: Continuity Model

Description

This model is the most similar to what currently exists at UTSA: it keeps existing departments together, bringing the whole departments of Information Systems and Cyber Security, Electrical and Computer Engineering, and Computer Science into the new college, plus the non-business focused departments of Management Science and Statistics. The School of Data Science and the research institutes serve as incubators and connectors, fostering cross-college, cross-campus, and community collaborations.

In addition to the structural concepts for the new college, the subcommittee that developed this model emphasized the value of co-teaching, cross-listing of courses across departments, students from the new college obtaining business minors, developing new minors and certificates in the new college that will be of value to students in other colleges, and providing a variety of both high- and low-tech facilitation tools and varied modalities in the classrooms to maximize accessibility. While not necessarily reflected in specific structural elements of this model, the subcommittee felt these aspects should be prioritized in the implementation of the new college.



Potential Benefits

By moving existing departments from different colleges into the new college, this model keeps programs with similar course requirements close together.

Since this model is the most similar to what already exists at UTSA, it would make for a quicker, easier transition to the new college, which would reduce uncertainty for faculty, students, and staff.

Alignment with External Partners

By retaining each department's identity, departments can more easily maintain their existing external partnerships and then leverage those partnerships (e.g., program design, fundraising, research), to become more synergistic college-wide partnerships. Moreover, the School of Data Science and the research institutes serve as multidisciplinary units to connect with the community.

Potential Challenges

Two potential challenges of moving the Department of Electrical and Computer Engineering out of the Klesse College of Engineering and Integrated Design and into the new college were noted. One is the challenge of physical lab space, as coursework in this discipline requires more specialized space and equipment compared to some of the other disciplines slated for the new college.

A challenge for any model that moves undergraduate programs in engineering into the new college is ABET (Accreditation Board for Engineering and Technology) accreditation. This accreditation is critical as it affirms quality standards, is required for professional certification after graduation, and is expected by potential students. The accreditation relies on core courses shared across all engineering disciplines. The new college and the Klesse College of Engineering and Integrated Design would need to determine how to offer core courses at both campuses, coordinate carefully to ensure

these programs' curricula continue to meet ABET accreditation standards and that data is collected appropriately to demonstrate compliance with ABET criteria and policies.

By keeping departmental boundaries in place, it's possible that the college could be less collaborative or innovative than other models. However, the presence of the institutes and School of Data Science in this model could mitigate that within the college and the wider campus by facilitating cross-disciplinary collaborations.

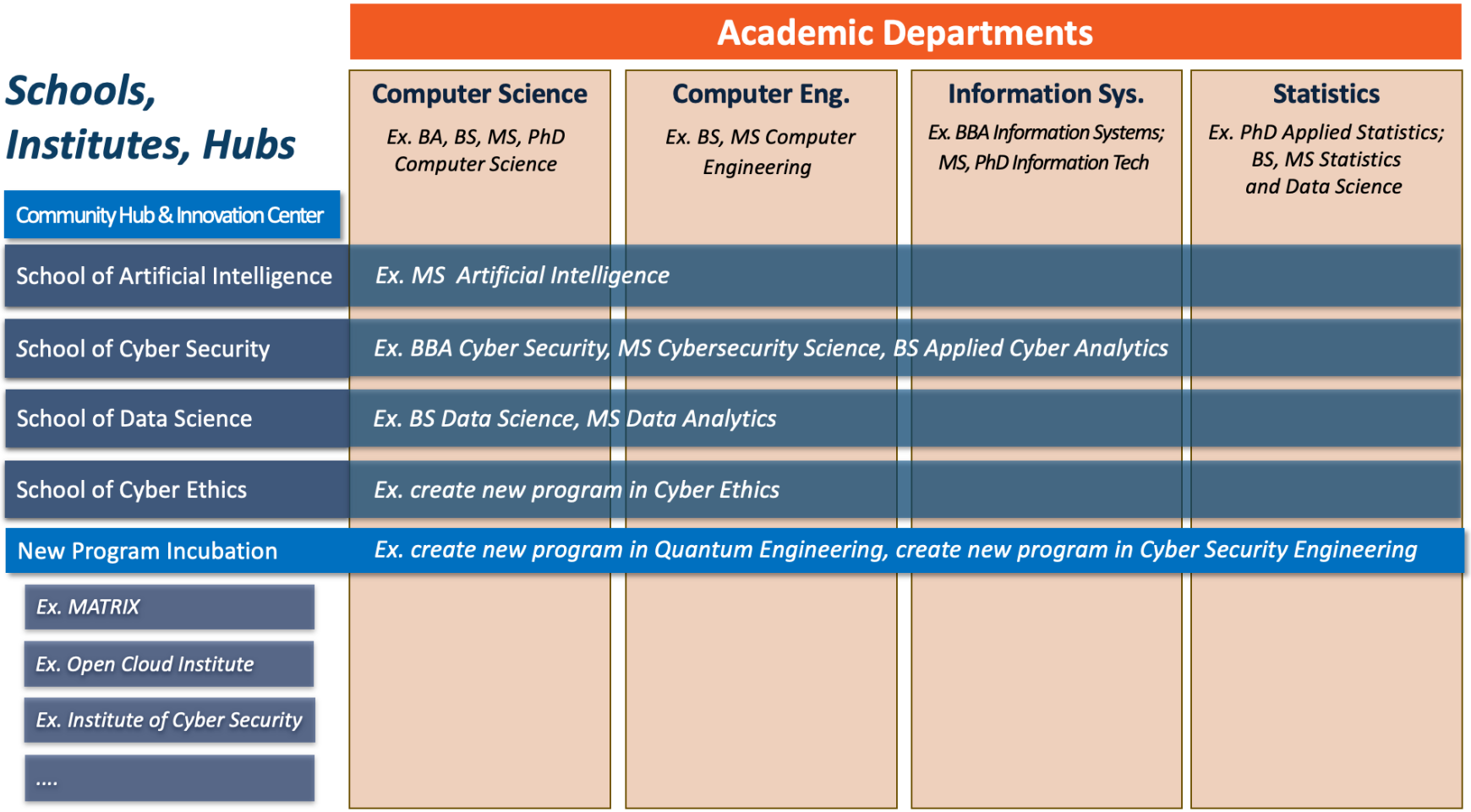
Model B: Cross-Cutting Schools Model

Description

This model is characterized by departments and cross-cutting schools, both of which house degree programs. Departments house and manage degrees that fit within a specific discipline, while schools exist to bridge departments and offer degrees that span multiple disciplines. For example, the computer science department would offer degrees in computer science, but a school in cyber security would offer degrees in cyber security, which would include courses from multiple departments.

Faculty are appointed to a department but can affiliate with one or multiple schools. Department chairs and directors work with faculty curriculum committees, and chairs and directors report to the dean.

This model also includes a new degree incubator, where new programs would be created as needs arise, and then they would be incorporated into a school. In taking this approach, the schools can evolve over time, which "future proofs" this model. This model also encompasses centers and institutes and a Community Hub and Innovation Center for connecting students, employers, and educators.



Note: *Some degrees may need adjusting over time with move to the new college, while ensuring no disruption to current students*

Potential Benefits

The flexible and multidisciplinary organizational structure accommodates cross-campus collaboration, both in terms of curriculum and research, in areas that do not fit into traditional disciplinary boundaries, while permitting faculty to maintain identity in their departments. The schools and institutes create a point of connectivity for such collaborations.

The school structure is designed to create career-ready graduates, providing customized career pathways that cut across departments, allowing students flexibility in their degree programs and beyond. Students will no longer need to understand departmental structures as a prerequisite for navigating degree programs.

Alignment with External Partners

The Community Hub and Innovation Center provides an innovation lab and platform space for students, employers, and researchers to connect and collaborate in a variety of ways; examples include: resource sharing; workforce opportunities for students, such as apprenticeships, employment opportunities, and experiential workshops to engage in cutting-edge contents and technologies; and connecting researchers with community partners, including student researchers at all levels, to collaborate on local projects through engaged research. This hub would serve as a centralized point of entry for the community to engage with the college and could serve to increase and streamline corporate partnerships.

The cross-cutting school structure of the new college allows curricular projects to be matched with external partners and yields opportunities to match organizational structure to funding opportunities and to funnel funding opportunities more efficiently.

Potential Challenges

Potential challenges to this model involve its structure and operations, as this model represents a more significant departure from existing structures than the first model. To prevent confusion among faculty and staff, careful consideration and clear delineation of role differences (department chairs, school directors, administrators, and committees) would be critical to its success. Similarly critical would be defining how faculty governance works at the school level versus the department level and defining clear advising roles for students in the school-housed degree programs.

This could be achieved through careful planning and clear communication during implementation, as well as fine-tuning as college operations get underway, to ensure a shared understanding; this, however, will make for a more complex implementation process relative to the first model.

Since the college could grow over time to encompass many transdisciplinary academic programs, a college-level curriculum committee that clearly sets requirements and policies will be important for the success of this model. Similarly, clarity of all

committees, processes, and policies would be especially important in this model given the cross-cutting layers of this structure.

Model C: Future Frontiers Model

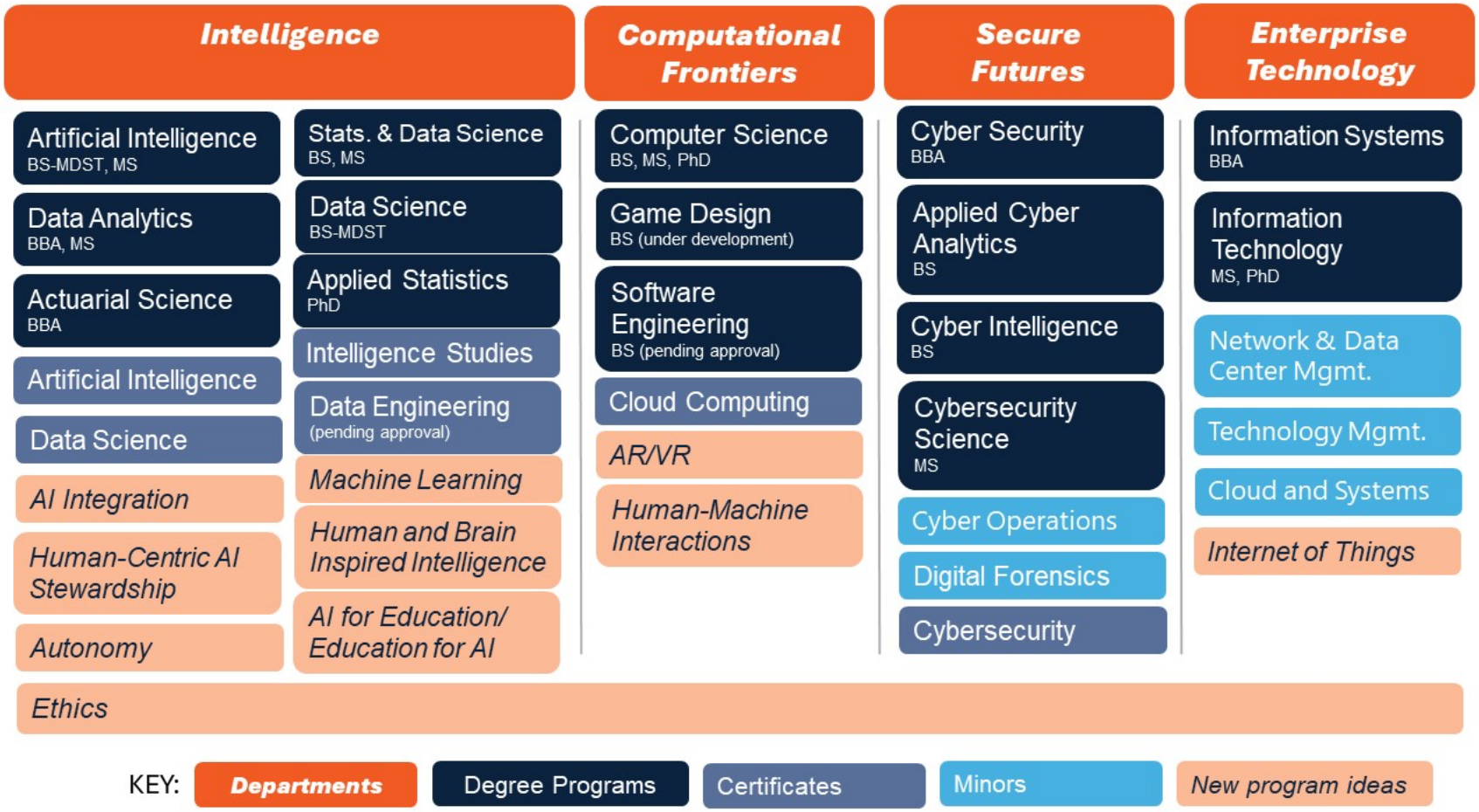
Description

This model features four large departments designed to encompass a broad range of programs. The model includes existing programs as well as numerous ideas for new academic programs. The idea behind this model is that these broad-ranging departments are “future proof” in that they can quickly add new programs as needs and demands change in these rapidly growing and evolving fields.

- The **Department of Intelligence** provides the theory and methods of intelligence studies, ranging from data science, analytics and machine learning, to artificial intelligence.
- The **Department of Computational Frontiers** provides theory and methods for developing new computational capabilities that enable advances in intelligence, cybersecurity, and enterprise technology.
- The **Secure Futures Department** provides theory and methods for protecting, designing, operating, and maintaining secure and resilient information and operational technology environments, as well as responding to and investigating attacks thereof.
- The **Enterprise Technology Department** provides theory and methods for enterprise technology infrastructure design, configuration, administration, integration, and management, including the technological policy, business, human and organizational elements.

Finally, this model includes an ethics certification housed at the college level. This program would be taught collaboratively by the departments and could be incorporated into various programs.

This model includes programs ranging from theory to applications and includes a department fully dedicated to emerging technologies. It is more focused on software so does not include programs more focused on hardware (e.g., computer engineering); however, a variation of this model that incorporates these other areas is included in the “Other Models Considered by the Task Force” section.


Intelligence
Computational Frontiers
Secure Futures
Enterprise Technology
Artificial Intelligence
BS-MDST, MS
Data Analytics
BBA, MS
Actuarial Science
BBA
Artificial Intelligence
Data Science
AI Integration
Human-Centric AI Stewardship
Autonomy
Stats. & Data Science
BS, MS
Data Science
BS-MDST
Applied Statistics
PhD
Intelligence Studies
Data Engineering
(pending approval)
Machine Learning
Human and Brain Inspired Intelligence
AI for Education/ Education for AI
Computer Science
BS, MS, PhD
Game Design
BS (under development)
Software Engineering
BS (pending approval)
Cloud Computing
AR/VR
Human-Machine Interactions
Cyber Security
BBA
Applied Cyber Analytics
BS
Cyber Intelligence
BS
Cybersecurity Science
MS
Cyber Operations
Digital Forensics
Cybersecurity
Information Systems
BBA
Information Technology
MS, PhD
Network & Data Center Mgmt.
Technology Mgmt.
Cloud and Systems
Internet of Things
Ethics
KEY:
Departments
Degree Programs
Certificates
Minors
New program ideas

Potential Benefits

One of the key features of this model is that the broad departments can encourage breaking down traditional academic silos, which has potential benefits for students and faculty: disciplines within departments are clustered to promote collaboration, and the themes match with potential careers. For faculty, this clustered arrangement encourages more opportunities for research collaborations, as well as the opportunity to remove duplication of courses currently used in multiple programs.

For students, it provides a dynamic, broad, and future-focused education, which empowers them to become versatile problem solvers and leaders in an ever-changing technological environment.

Alignment with External Partners

As noted above, the model offers flexibility in meeting the demands of a changing landscape. This ensures graduates are well-prepared to begin careers in industry, and our programs are current, relevant, and aligned with workforce needs.

Industry partners noted the need for students to gain real-world experience while still in school. This college model positions the college ideally for forging career-engaged learning partnerships by matching departmental themes to areas of workforce need. This workforce-aligned structure will help the college develop pipelines into certain industries, benefiting both students and industry.

Industry partners also identified the need for a human-centered approach that's integrated into the technical curriculum. This model, particularly the cross-cutting emphases on ethics, will help to meet the "people focus" desires expressed by industry.

Potential Challenges

Potential challenges to this model involve the complexity of its implementation: one challenge is that courses needed in this model are now in programs across multiple departments. Getting this streamlined would be a benefit eventually, but issues related to workload, particularly for FTT faculty makes this complicated on the front end.

Similarly, joint appointments will be necessary for this model to be successful; while joint appointments have benefits to students and faculty, putting these in place could add to the complexity of implementing this model.

Faculty recruitment could also be more challenging under this model: specifically, job candidates may be hesitant to be affiliated with a department that they perceive as not being aligned with their disciplinary identity and may have concerns about the way their work would be evaluated, how their training aligns with expectations, and so on, as compared to a position in a more traditional department. While this could be managed through clear communication and setting clear expectations, it could be problematic when recruiting highly sought-after faculty with multiple job offers.

Model D: One College Model

Description

This model has no academic departments. Instead, faculty are self-organized into dynamic interest areas, similar to Research Interest Groups (RIGs). Each interest area has a coordinator who is elected to a term. The interest areas listed in the diagram are examples, with the actual areas to be determined during implementation. The interest areas are dynamic and can change over time, but there will always be an instructional development area, which focuses on teaching and pedagogy, given the importance of FTT faculty. Each faculty member chooses to be a member of one or more interest area(s), and the interest areas are open to faculty from other colleges across campus.

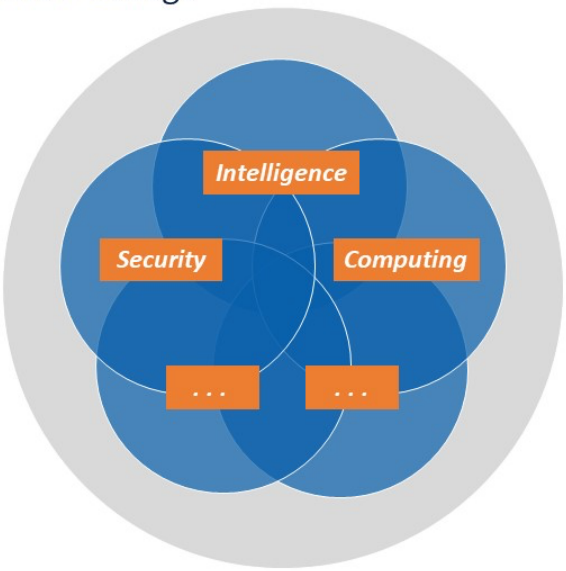
The Associate Dean for Undergraduate Studies and the Associate Dean for Graduate Studies would oversee class scheduling, using three-year teaching plans. Interest Area Coordinators would bring input from faculty on resource needs, such as faculty lines, space, and operation costs. Tenure review and annual evaluation would be completed by peers from within a faculty member's interest group(s).

Graduate Advisors of Record (GARs) and Undergraduate Advisors of Record (UGARs) would handle academic program related issues. Program Committees of faculty, led by the UGARs, oversee the integrity of undergraduate programs. This model would include one advising team, which would allow for better coordinated advising for students.

This model is focused on the college structure rather than on which disciplines would be included in the college, and so it does not specify the academic programs that would fall under the college in this model.

In addition to the structural concepts for the new college, the subcommittee that developed this model emphasized the value of co-teaching, cross-listing of courses across departments, students from the new college obtaining business minors, developing new minors and certificates in the new college that will be of value to students in other colleges, and providing a variety of both high- and low-tech facilitation tools and varied modalities in the classrooms to maximize accessibility. While not necessarily reflected in specific structural elements of this model, the subcommittee felt these aspects should be prioritized in the implementation of the new college.

Interest Areas within New College



Potential Benefits

This ecosystem is designed to foster and maximize transdisciplinary collaborations at all levels, including within the college, with all other UTSA colleges, and in the community. By eliminating departmental boundaries, potential partners across campus and in the community can avoid confusion over where to connect. This model could foster a unified identity within the college, removing the potential for territoriality that can exist among departments.

Students would be able to more easily discover the academic program that is right for them (e.g., learning and understanding the differences between the similar-but-distinct programs before declaring a major), and over time this structure allows clearer pathways to be created while avoiding any program disruptions for students.

Alignment with External Partners

The college would include some type of entity that serves as a connector to the external community and that supports and enhances research collaborations along with the other research institutes. This structure would make it easier for external partners to find connection points by avoiding a siloed department structure. The subcommittee did not specify the structure of this entity; it could take a similar form as the hub described in Model B, though other ideas could be considered during implementation.

Potential Challenges

This model represents the most drastic departure from what currently exists, and, as such, its implementation would be the most complex. Significant questions exist around how promotion and tenure, joint appointments, and faculty governance, to name a few examples, would work and would need to be considered and communicated carefully.

Faculty would likely need to agree to three-year teaching plans to make course assignments at this scale manageable, which could be challenging in times of high growth.

Expectations around membership in interest areas would need to be made clear, particularly if membership is opened up to faculty from outside the college (e.g., whether a joint appointment would be required, their role in P&T and other decision points).

Another potential risk is that while the dynamic nature of the interest areas could foster collaboration, there is also the potential for a sense of instability since the interest areas are subject to change over time. Additionally, while the interest area structure could reduce siloing and competition for resources among departments, it is possible these issues could arise among interest areas if not managed properly.

Other Models Considered by the Task Force

The task force also discussed a conceptual model that would be similar to Model C, but with an expansion of the Department of Computational Frontiers into a School of Scientific Frontiers. This model would go beyond the software and algorithm side, to also include relevant hardware and materials components. While this model did not receive consensus in its design subcommittee, due to concern over its feasibility of implementation and impact on existing structures, there was some enthusiasm for the idea in the broader task force.

One subcommittee explored a configuration that matched the four themes of this initiative, containing four departments: artificial intelligence, cyber, computer science and engineering, and data science. However, they found that confining such transdisciplinary topics as artificial intelligence and data science into their own departments (as opposed to cross-cutting schools or larger departments) worked against their intent to design a maximally collaborative structure and may be challenging since many of the people working on those topics actually identify with more traditional disciplines (e.g., a person trained in computer science working on artificial intelligence). The subcommittee settled on those areas serving as schools instead.

Common Requirements and Implementation Considerations

While each of the conceptual models presented by the task force has unique considerations necessary to ensure success, there are several common requirements that must be addressed to ensure the success of the college. Most of the requirements below are associated with the potential rapid influx of over 6,000 students and hundreds of faculty and staff to downtown.

The task force was focused on the first, visionary phase of planning for the new college, though in the course of its discussions, a number of logistical and practical considerations related to the new college were raised.

Though outside the scope of this task force, the group identified the following topics as being critical to the college's success and has noted them here as key considerations to be discussed and addressed during later, implementation-focused phases.

Adequate Downtown Infrastructure

The downtown location offers exciting possibilities that could dramatically enhance the success of the new college. However, the current infrastructure near the downtown campus raises significant concerns about the ability to support a large college that would include several of the fastest-growing academic programs at UTSA.

It is essential that campus services (housing, dining, and student services) and infrastructure needs (parking and transportation) are addressed for the new college to truly thrive. The intended integration between the college and technology community downtown requires extensive collaboration, which requires an observable presence of students, faculty and staff. The basic needs of those groups must be satisfied to encourage them to be present downtown. Not addressing these needs creates a risk that the momentum that already exists could be stifled.

The task force acknowledges that these issues cannot be addressed overnight and that the supply of services often lags behind the demand for them. In the absence of existing services and infrastructure, a clear, public plan for how they will be implemented will be critical to maintaining momentum until they can be put into place.

Computing/Technical Infrastructure and Support

The disciplines to be included in the new college have unique, extensive technical requirements that must be met in order for the college to be successful. Those needs involve initial investments in the in the hardware necessary to provide the high-powered computing required of the new college. They also involve continued investment in the staff necessary to maintain the infrastructure and continued investment to ensure infrastructure needs are met as technologies evolve.

The task force recommends investment in a dedicated unit, with adequate staffing, to provide continual support to faculty, staff, and students of the new college; collaborating closely with the Real Estate and Property Management team to ensure the plans for San Pedro II include adequate infrastructure to support the computing needs of the new college (i.e., classrooms, laboratory space, and computing to support the types of resource-intensive research to be conducted by faculty in the new college); and developing a well-communicated plan for how shared resources (i.e., data centers) can be accessed by faculty for teaching and research.

Student Success and External Relations Infrastructure

A key element of the new college is the integration of the college with external stakeholders, consistent with UTSA's broader goals of career-ready graduates. It will be critically important that staff and space be allocated to support building and maintaining external relationships and student success. This goes beyond a dedicated student success center; the maintenance of corporate relationships for research requires a

significant investment in order to allow faculty to focus on the projects associated with those relationships.

Strong Connection with Industry and Community Partners

Regardless of the model selected, the success of this college will rely on intentional experiential learning (e.g., internships, research) being built into the programming. This will require having adequate staff to support the MOUs, partnerships, student payments, and so on.

Relatedly the college must establish strong pipelines into industry with checkpoints built in. For example, multiple workforce leaders at the design charette noted that strong partnerships and pipelines require mechanisms for employers to provide feedback on interns, recruits, and the evolving state of the industry.

Tenure and Promotion Criteria

The promotion and tenure inputs vary across the disciplines involved in the new college. Whereas some disciplines focus on grants, others focus on publications or conference presentations. This may not be as much of a challenge in situations where departments are structured around traditional disciplines; however, there will need to be consideration at the college level of how to address these differences equitably among faculty, while still acknowledging disciplinary differences.

IRM/F&A Allocations

Much of the discussion of the new model has centered on innovative, interdisciplinary curriculum that bridges disciplines within the new college and between existing colleges on campus. For example, there has been discussion about how to maintain some foundational knowledge in business and engineering for students in the new college, while also opening options for students in other colleges to learn about the topics focused on in the new college (e.g., artificial intelligence). Moreover, the task force has acknowledged that a reorganization of this magnitude is likely to have a significant impact on the other colleges, particularly the College of Sciences and Alvarez College of Business, as computer science and cyber security are the largest majors in those colleges, respectively, and also among the fastest growing in enrollment.

Similarly, shifting faculty to a new college while in the middle of grants could impact the distribution of F&A, especially in instances where colleges have made up-front investments in start-up funds for faculty who are in the process of recovering those investments through their grant work. Departments may have accumulated F&A funds that need to be sorted out if there is any restructuring of those departments.

The task force noted that these challenges, along with other considerations related to the shift in faculty away from existing colleges into the new college, suggest that a very careful examination of IRM and F&A allocations will be necessary to ensure that resources are appropriately allocated to the new college, while also supporting the efforts of the existing colleges.

Joint Appointments

Joint appointments may be required to meet teaching needs across the new college. Improvements to existing workflow systems are needed to improve flexibility, in order to administer these joint appointments seamlessly.

Next Steps

Now that these conceptual models have been proposed, executive leadership will review them in more detail. Additional opportunities for input (e.g., surveys, town halls) will be announced before a final decision is made. Once a model (or elements from multiple models) has been selected with campus input, executive leadership will speak with affected departments as implementation gets underway.