T-shape Tiger Team: Final Report

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Executive Summary

This team set out to answer “how will RIT empower students to develop and graduate as T-shape professionals, adaptive innovators who are deeply educated in a discipline and can also think and act across multiple domains?” To that end, we framed a set of characteristic traits that would exemplify what one can expect from an RIT graduate, identified opportunities to build upon RIT’s rich career-oriented culture, and embarked upon articulation of competencies for T-Shape success.

Our recommendations are grounded solidly in the overarching ethos of Building a Culture of Reflection that empowers students to assess competency development and engage action steps that carve out meaningful and intentional roles for themselves throughout the RIT experience. Meaningful change occurs for our students when coherent consistent evaluation happens across domains. It is paramount to illuminate opportunities for conversation and to promote coherence of learning within the whole of the RIT experience.

We have organized recommendations and planning guidelines into three broad priorities. Upon acceptance of the report by the Provost and key stakeholders, we will translate the priority bundles into an implementation and budget plan.

Priority #1: Building a Culture of Reflection

- Reframe and integrate entering student experiences (including but not limited to orientation programming, the Year One course, and Residential Education Curriculum) to embed the T-shape concept and begin to build the foundation for the development over the course of the educational experience. Utilize this opportunity to message the centrality of the general education experience in building T-shape capacity and a long-term career arc.
- Establish expanded intentional points of connection, with RIT professionals and peer leaders, for students beyond the first year. Encourage all degree-granting units to reflect on curriculum delivery and their own guidance and support networks to discover how to best integrate T-concept language and competencies into their work.
- Identify avenues to promote the value of curating, documenting, and articulating experiences, competencies, and accomplishments early and throughout the educational experience.
- Build consistent and expanded debrief elements within the cooperative education process and expand use of work assignment evaluation data in all dimensions of both the student development and program assessment process.
● Leverage the development opportunities provided by extensive on-campus student employment experiences by requiring performance feedback related to job duties and professional competencies within the RIT T-shape concept.

● Develop accessible resources and training opportunities for staff and faculty that illuminate current effective practices and expand on the collective ability to develop curricular and co-curricular experiences supporting T-shape development.

**Priority #2: Messaging and Branding: Communicating RIT Signature Competencies**

*Consolidating the Career University Brand:*

● Develop coherent and common messaging around the culture of reflection at RIT including development of the signature competencies (communication, collaboration, and critical thinking) that reach multiple audiences at early points of connection with RIT.

● Determine how to communicate and market a shared vision of the integration of RIT’s competencies (Educational Goals, General Education Student Learning Outcomes, and T-shaped Competencies) to the campus community. Reaffirm and extend RIT’s commitment to general education outcomes from an expanded perspective by including “collaboration” in the assessment framework.

● Highlight the rich interplay between general education, liberal learning, and T-shape success

*Empower student articulation, communication and demonstration of competencies:*

● Develop and promote opportunities for documentation of competencies and accomplishments through strategic engagement with emerging educational technology and major-based advising strategies.

● Invest in sustainable and emergent educational technology that supports student documentation and storytelling strategies around key competencies

**Priority #3 Leveraging RIT Information Assets**

● Integrate and analyze data that tells the story of our brand

● Invest in resources that allow best-in-the-nation stewardship of co-op and experiential learning data from all available sources

● Continue to build out an integrated organizational assessment agenda across divisional silos that supports broad-based and holistic career development
Part I: Background and Key Strategic Plan Difference Makers

From the Strategic Plan

Difference Maker I.1: RIT will build upon its strong academic portfolio, extensive experiential learning, co-curricular offerings, and the rich diversity of its people and programs to develop “T-shaped” graduates possessing both disciplinary depth (the vertical axis of the “T”) and breadth across multiple skills and competencies (the horizontal axis of the “T”).

The Charge

The Provost took nominations from Deans and Division Heads to form a team that was broadly representative of campus constituencies and partnerships crucial to the moving of students from applicant to alum.

The T-shape Tiger Team was charged to identify a signature profile of competencies, as well as recommendations on how RIT would empower students to pursue, develop, document and articulate these competencies. The set of recommendations are to reflect on the following:

1. A signature profile of the successful and engaged RIT graduate that will include a set of skills that graduates of the future will need for success and lifelong learning
2. A framework that the University will use to assess these skills.
3. A set of examples that elucidate how these skills will be achieved and assessed.

The national conversation about T-shape skills has focused broadly on the undergraduate experience and our deliberations have reflected that practice. Despite that distinctive focus, there is no question that our work is relevant to the graduate education experience and there should be much opportunity and need for graduate units to engage these recommendations.

Most exciting for the team has been the immediate recognition that our tradition at RIT of providing career-focused education has meant simultaneously rich traditions of delivering holistic, lifelong, and engaged educational offerings meant to frame work under the broadest consideration of citizenship, family, and sustainable vocation. We are, in other words, not operating here from a blank slate. We are rich in best-practice, in provision of opportunity, and have much to learn from each other. Moreover, this engagement with a holistic approach to student learning and engagement is a remarkable opportunity to revisit our general education mission and reinforce the values of liberal learning in the polytechnic university environment.

Our Process

The Tiger Team began by acknowledging the difficulties of imagining a single comprehensive transversal skill set that would account for all disciplinary and employment sectors. Indeed, it was good to remind ourselves of the rich diversity of disciplinary and
vocational pathways at RIT and the different ways those traditions conceptualized a work-life. We are a community that produces individuals who will contribute to the growth and transformation of large scale and complex corporate environments; we also engage and train individual artisans and entrepreneurs whose goal is independence and self-defined success. A meaningful “T-shape” practice will have to engage both groups, and, indeed, frame resilient life-skills actionable in both domains.

**Framing the T.** Some members of the Tiger team had previously attended the T-Summit organized by Michigan State University and IBM and as such took the framing of the T-concept from that gathering as our starting point. We believe this formulation is as close to a national consensus of the concept and it further reflects Michigan State’s synthesizing research strategy around employer demand:

![Diagram of T-shape concept](http://tsummit.org/t)

From this visualization, we considered, then, an imagining of the ideal graduate as one who has taken seriously the obligations and opportunities associated with an education provided by a comprehensive research university and:
• developed a deep attention to core disciplinary competencies in an identifiable
disciplinary space or spaces, and learned to enact those competencies in problem-
solving and analysis
• become attentive to utilizing those skills in an identifiable system or domain, and
gathered the co-requisite knowledge to be seen as expert in said system
• recognized the strategic necessity -- for citizenship, for sustainable career pathways -- to
become aware of other disciplinary and systems domains, has, in other words,
developed the awareness of the value of a cosmopolitan outlook on life
• invested simultaneously and deeply in the development of boundary crossing
competencies -- defined distinctively in specific industry or vocational domains -- and
practiced, rehearsed, and documented said competencies in ways that enhance
employability and advancement, in both personal and organizational terms
• is richly capable of telling a vital and revealing story about the shaping of the ”T” such
that they are able to answer probing employer questions about the source of each
competency and engage in rich dialogue about their growth and potential

The T-shape graduate embraces the whole range of opportunities that a comprehensive
university can provide -- in curriculum, co-curriculum, and extracurricular activities -- to become
socially and personally aware, the possessor of sustainable skills and contextual knowledges,
and capable of narrating their own value and story to any necessary audience. T-Shape, then,
extends and rearticulates higher education’s core commitments to liberal learning while at the
same time imagining a viable social contract between the employer community and the
university that takes seriously the complexity of the educational process and workforce
development needs.

The Future of Work. We acknowledge that the urgency and difficulty of our shared
inquiry is rooted in uncertainty about the future of work. Distinctively and irrevocably human
traits are represented in the horizontal axis of the “T” and there is a timeliness to this work as
we reflect on the future of AI, of machine learning, and the resulting disappearance of related
jobs often filled by recent college graduates. A 21st-century career university must remain
deeply engaged with the question of the future and meaning of work.

The team read Humans are Underrated (Colvin, 2015) and discussed resilient and likely
to be highly valued skills in a growing domain of automation, computational transformation,
and the age of big data. Our reading of this comprehensive engagement with the nature of
work led us to reflect on the nature and character of our own workplace and lives and we
considered the production of an orientation towards T-shape at RIT in a general way -- the
impact of:
• campus climate -- our engagement with diversity, fairness, and justice
• our physical landscape -- an architecture that supports exchange, dialogue, informal interaction
• our instructional model -- a polytechnic university -- distinctive by the presence
of rich liberal and applied arts traditions
We established that a most positive and corollary dimension of this inquiry was an opportunity to establish a tradition on the campus of reflecting on the value of work, engaging its future, and building a shared culture of reflection around key dimensions of professionalism, vocation, and mutual support.

We recognize that in this domain we are served by a comprehensive Career Services and Cooperative Education unit that constantly monitors workforce developments; a Corporate Relations team that shapes partnerships; a Presidential Roundtable and BOT that informs our sense of industry need; and committed faculty and staff that are engaged with the development of both short-term career readiness and preparation for life.

Grounding the Culture. The T-shape Team set out to consider how to best ground that shared culture of reflection:

Collecting. We gathered key industry reports, past and present. We gathered and read strategic philanthropic and research foundation work on the nature of the baccalaureate, including seminal work by the Lumina Foundation and the American Association of Colleges and Universities. We engaged the higher education sector’s reflection on the turn to outcomes-based process, assessment, and improvement and we tracked the emergent educational psychological literature on grit, resilience, growth mindset.

We are happy to acknowledge that RIT faculty, staff and students have also done work in this domain, and their work -- and all of the above -- is included in Appendix B and discussed in more detail in the next section.

Listening. Spring semester of 2016 provided us with rich opportunities to listen to key participants in this national conversation. Debra Humphreys, then Associate Vice President for the American Association of Colleges and Universities, visited RIT in February to share with us work from the past few decades that has tracked industry attitudes towards graduate preparation and key competencies for effective employment. Most certainly, since the mid-1990s, higher education advocacy and philanthropy have worked collectively towards a shared profile of the degree holder. In other words, recent decades have seen shared reflection on the nature and character of the baccalaureate degree, most certainly with attention to industry need, but also with an eye to effective citizenship and lifelong learning. AACU’s LEAP standards and the Lumina Foundation’s Degree Qualification Profile are key markers in higher education’s attempt to build consensus about employment readiness.

Members of the T-shape team attended the March 2016 T-Summit hosted by the National Academy of Sciences. NAS’s decision to host is a good signal that this dialogue is seen -- most essentially amongst institutions that bridge industry and education concerns -- as integral to national infrastructure and competitiveness concerns. At this year’s meeting, we saw more attention to the global education marketplace. We heard:
• about higher education experiments meant to produce greater numbers of T-shape graduates via problem-based learning and industry partnerships
• further and more radical experiments meant to call into question the standard residential model for 19-21 year olds; decentralized, flipped, and other models that challenge the primacy of the credit hour in our work
• institution re-branding efforts around T-shape focus as at Virginia Tech and Purdue (see Appendix E)
• the work of global education and employment policy making entities in engaging government and accrediting bodies meant to manage the higher education space
• the arrival of private and alternative education providers who mean to fill T-shape gaps should higher education not step up to the challenge

All of this work was broadly informative to the T-shape team while also making clear that RIT would have to find its own path because of its own key differentiators -- our scale, history, mission, and co-operative education commitment.

Our final key listening moment in the spring of 2016 was our listening session with RIT BOT member, Susan Puglia, and then Vice President at IBM for Global Strategy. Most important during this session was the opportunity we had to talk about the visceral impacts of working with non-T-shaped professionals, the challenges associated with socializing digital natives for workplace success, and the usefulness of maintaining a kind of common-sense vision on desirable, consensus professionalism. Puglia kept us thinking about attentiveness, alertness, self-awareness, courtesy, and growth-mindset. It was also a good moment to begin a reflection about character and education and to think about the complex social situation in which we do our shared work.

Reflecting. In June and July of 2016, the T-shape team split into two groups and committed to separate day long retreat sessions to synthesize what we have learned and begin the process of producing a concept model for RIT. Ultimately, each group, produced two separate models, and the guiding chairs worked to synthesize what was consensus across the frameworks to present a single draft concept.

Two key conversations emerged:

1. As individuals and groups deliberated on how to frame T-shape for the campus community, there was an interesting dynamic between those who believed the hard work was in designating core competencies, and those who focused on the social dynamics of learning. Is it key to frame for students -- across industry domains -- lasting intellectual and character commitments that will help them build a career arc? Or is it key to frame for students where and how the learning of transversal skill sets actually takes place? As such, and as the visualization work took place, some models focused on lists of key competencies/skills we heard celebrated repeatedly over six months of conversation, whereas others focused on thick description of social networks. The work of synthesis then ultimately produced a
model that attempts to build upon a marketable, messageable set of key competencies that exists richly embedded in a *shared culture of reflection*. The work ahead requires both the presentation of a concept and understanding how that concept is actualized in our university system.

2. As we reflected on our emergent models, we felt compelled to talk about how this new institutional commitment will not be experienced equally. There was good and important deliberation about how women, first generation, racial and ethnic minorities, international students, and our deaf/HOH population will engage this initiative. It is important to the T-shape team that we not imagine a utopian start-line and recognize how our outreach work will need to include families, K12 partners, and real attentiveness to cultural difference.

**Surveying.** A key piece of feedback that began to emerge late in the summer and early fall was to engage T-shape in a way that emphasized that we are coming to this conversation from a position of strength. Do not, key stakeholders have told us, frame this in terms of institutional deficit. A T-shape subcommittee survey received responses from the Associate Dean’s cabinet, Student Affairs, Development & Alumni Relations, Diversity and Inclusion, and Marketing & Communications in the fall to begin the process of building a list of institutional best practices that we believe produce orientation to T-shape development. This includes practices in co-op preparation, career development, problem based learning, collaborative capstone activities, industry/academic partnerships, and other unit level initiatives meant to make students think about the application of technical knowledge in a specific domain and the kinds of skills necessary to be an effective member of a problem-solving team.

Another subcommittee engaged the ways in which our identified T-competencies already productively intersect with key learning outcomes commitments. This too helps to encapsulate RIT’s position of strength in this national conversation. We are well into developing academic program review processes, and formative annual assessment work that will assist us in documenting both strength and further progress in this domain.

The final sub-committee was focused on gathering information on professional development and career services support already provided on campus. We uncovered rich disciplinary-based technical tools, comprehensive career support, and emergent co- and extra-curricular documentation support across campus – but with little policy consensus and a great deal of unequal distribution.

**Refining.** Also, assuming that we are operating from a position of strength, the committee chairs began the process of interviews with key stakeholders. We have received enthusiastic and sympathetic feedback from Student Government, Academic Senate, Academic Support Center, Center for Campus Life, Center for Residence Life, Student Employment Office, Career Services and Cooperative Education, University Advising, Human Resources, Alumni Relations, the President’s Roundtable, and the Dean’s Council. Across the board, we received enthusiastic responses about the possibilities for shared scaffolding work in the development of an effective shared culture of reflection.
These broad and collegial conversations across divisions also reveal that there is much available if not urgent work to be done in aligning varied articulations of value and core competence across the spectrum of work and learning domains. We articulate “key” “essential” and “core” outcomes in multiple locations on campus, and plausibly confuse or disinterest students through their implicit conflict or overlap. A future dimension of T-shape work may be to extend the reflection we offer in Appendix A in working to establish consensus definitions for key terms in multidisciplinary or holistic learning.

**A National Conversation: A Brief Review of the Literature**

Appendix G provides access to both comprehensive and concise bibliographic support. It is important to highlight that industry reporting on the both the success and failure of higher education is not new, nor are debates about whether or not a university’s focus should be on its general, holistic, comprehensive mission, or a narrower framing of a menu of industry-desired technical skill sets. The most fundamental concession should be that consideration of decades of reporting reveals little high predictive value in isolating transformative competencies. More typical is a kind of reflection that is deeply embedded in the national or global zeitgeist and is reflective of broader cultural trends and anxieties. In other words, these reports -- from higher education, industry or philanthropy -- are indeed meaning making and potentially guiding, but any institution would be well advised to take cues from their own history, values, and strength. Reading this literature systematically alerts one to urgent questions about the shelf life of identified urgent capacities and competencies and the deeply cyclical nature of the reflection. Even a twenty-year scan of the literature reveals inescapable cycles and fads. Like changing formulations of leadership and innovation, there is a great need for some skeptical push back at articulation of local and contingent competencies when they are framed as verities and eternal truths.

We came back time and again to two touchstones: (a) the American Association of Colleges and Universities’ (AACU) engagement with the research of Hart and Associate’s research on employer satisfaction, and their integration of that work with their own consensus-building around liberal learning goals, and (b) the Committee for Economic Development’s (CED) reporting on essential and hard to hire skills (Herk, 2015).

AACU’s synthesis is important to us insofar as they successfully demonstrate a fundamental cohesion between our traditional investment in robust general education and the values of liberal learning and employer-responsive outcomes. (Once again, we would emphasize the rich opportunity we have to reinvigorate our messaging around general education and its purposes and the T-Shape initiative.) There is a direct line between the defense and messaging of our most fundamental liberal learning values and the production of a resilient, responsive and capable workforce able to meet the challenges of both automation and the inevitability of a multidisciplinary work space.

The AACU highlights:
“Employers recognize capacities that cut across majors as critical to a candidate’s potential for career success, and they view these skills as more important than a student’s choice of undergraduate major. Nearly all those surveyed (93 percent) agree that “a candidate’s demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major.” More than nine in ten of those surveyed say it is important that those they hire demonstrate ethical judgment and integrity, intercultural skills, and the capacity for continued new learning. More than three in four employers say they want colleges to place more emphasis on helping students develop five key learning outcomes, including critical thinking, complex problem solving, written and oral communication, and applied knowledge in real-world settings. Employers endorse several educational practices as potentially helpful in preparing college students for workplace success. These include practices that require students to conduct research and use evidence-based analysis; gain in-depth knowledge in the major and analytic, problem-solving, and communication skills; and apply their learning in real-world settings.”
(https://www.aacu.org/publications-research/periodicals/it-takes-more-major-employer-priorities-college-learning-and)

Furthermore, AACU highlights and takes as axiomatic that ‘Employers recognize the importance of liberal education and the liberal arts,” in the building of these cross-cutting capacities and, secondly, “Employers endorse a blended model of liberal and applied learning.” Key for all student pathways is to effectively merge the gathering of discrete bodies of knowledge with rich opportunities to apply learning to complex, open-ended problem solving in spaces that mirror employer need and function.

CED’s reflection on industry demand highlights to significant qualifiers that should impact RIT’s conception of and investment in the job ahead. First, while some competencies are important and even essential, they are also either already well represented in any portion of the college educated workforce, or, similarly, easy to train as part of any human resources process. RIT would be well advised to invest in hard to hire skills and competencies, and, moreover, hard to produce in the context of short term training or onboarding.
For Monica Herk of the CED:

Critical thinking (“the ability to exercise sound reasoning and analytical thinking to understand and solve work place problems”) and problem solving (“the ability to solve problems using one’s skills and knowledge in real-world settings to solve problems that have not been encountered before”) stand out as the skills that are deemed essential to most jobs and are in relatively short supply. These perhaps are the competencies that our educational system and institutions should be focusing their improvement efforts on. ([https://www.ced.org/blog/entry/which-skills-are-most-important-on-the-job-and-which-skills-are-in-short-supply](https://www.ced.org/blog/entry/which-skills-are-most-important-on-the-job-and-which-skills-are-in-short-supply))

These clarifications around hard to hire and easy to train are significant insofar as the vast array of industry reflections -- to say nothing of regular articles seemingly weekly in the popular press, and despite efforts by some to brand particular configurations of competencies -- largely overlap across a broad array of transversal domains. Employers want individuals who are motivated and self-aware, able to work without supervision and on open-ended problems, effective communicators, team players, sensitive to a diverse workplace, empathetic, etc.
Another way to frame this is employers want people able to leverage their high value as humans and not machines.

We did indeed see interesting outliers and/or competencies that are valued differently by employers and educators. Second language competency, for instance, is often highly valued by educators as a marker of cognitive flexibility, empathy, and cosmopolitanism, but it less consistently appeared as a high value item to employers. Despite having a sometimes similar investment in good behavior as a dimension of classroom management, educators are probably less likely to highlight character traits or behaviors such as punctuality or professional dress as an urgent dimension of the higher educational experience. In general, employers are skeptical of (or uninterested in) secondary liberal arts skill sets, and educators are similarly skeptical about behavioral dimensions of identity seen to be more distinctly a part of socialization and family background.

While hard to turn into a hard or fast rule, it is fair to say that different industrial domains often privileged different competencies. As such, it is crucial to highlight that as we roll T-shape out as an institution-wide initiative, individual students will need to take the time to investigate disciplinary priorities, just as individual departments or programs will need to frame robust T-competence in local terms. A key dimension of our institutional value-added will be, then, not only in general messaging about some imagined consensus set of competencies, but in our ability -- in close and sustained contact -- to help students to own and define the career arc in the most personal of terms. It is easy enough to argue that in the next seven to ten years we want to rediscover higher education’s capacity for teaching the transversal but we would do well to think through what “always connect” might mean for jewelry designers and engineers, activists and politicians, computer scientists and physician assistants.

Regardless of whether or not the reporting out of key skills and competencies comes from higher education, industry or the policy sector, there is no obvious consensus about what is a higher education responsibility and might land squarely in the employer’s lap. And, of course some parts of any imagining of ideal graduates is utopian and probably involves unreasonable expectations about what can be accomplished in a four-year undergraduate program, and does not engage our perennial challenge of getting diverse freshmen recruits to some kind of common starting line.

Finally, this ground of shared reflection by employers and higher education is suggestive, first and foremost, that there are remarkable new opportunities for collaboration and that this is good news for a career-centered university which requires engaged industry partners for the vital cooperative educational experience. The literature suggests that we can come to the conversation proud of our accomplishments, not defensive in stance, and with a record of being willing to change, to research and reflect, and communicate our work.
Part II: An Opportunity for RIT

The national and international conversation about T-shaped skills and competencies is a distinctive opportunity for a career focused institution like RIT. The opportunity is both local and external.

Locally, we have an opportunity to reframe and extend our current practices around student development and disciplinary accomplishment even more explicitly around career preparation and career trajectory. Indeed, we have an opportunity to consider the sources of the conversation, the impact of the conversation on RIT, and not only its influence on student preparation but also its framing of the future of work. We are, of course, not only the developer of career-based curricula, but a major employer. Our consideration should be not only at the production end of the conversation but at the consumption end too. We should be interested in the distinctive synergy at the intersection of the supervision of employment and preparation for its future. What do we potentially become by actively reflecting on RIT as a work culture and its attachment to a deep history of career and skills preparation? What opportunities are there for reinforcement -- and, of course, the modeling of good behavior -- by teasing out the continuities and interruptions between how we prepare students for work and how we evaluate ourselves and our colleagues?

If, then, the T-shape conversation indicates a new pathway to serious consideration of holistic preparation of the student in service of immediate employer need and a long-term career arc rather than a first job, there is a distinctive opportunity to reinforce the value of liberal learning, to re-message our general education story, and to build a work and learning community around a cohesive purpose.

Externally, our opportunity is to position ourselves distinctly as deeply interested in simultaneously preparing students for robust participation in complex employment environments, understanding the rapidly changing nature of work itself, and ongoing inquiry based in the context of our own commitment to industry best-practice for evaluating, improving, and rewarding work. This external reach is extended by our taking seriously our substantive global educational footprint. In 1997 RIT took a bold step in establishing its first Global Campus - RIT Croatia, subsequently followed by operations in Kosovo and United Arab Emirates. Each of the global locations brought us unique exposure to global experiential educational opportunities, international networks, international research and cultural exchanges. One of RIT’s strategic goals is to internationalize the campus through fostering culture knowledge and competencies. This direction is fully aligned and harmonized with the T-shape initiative. RIT’s approach to education has always been inclusive, not disconnected from the world. T-shape competencies are universal and will greatly benefit our students regardless of the location where RIT is present, supporting our commitment of educating global citizens.
Through sharing, promoting and encouraging the T-shape concept across the campuses our institutional culture will be stronger and more vibrant.

**A Shared Culture of Reflection and RI(T)-Shape**

Building a “shared culture of reflection” is our key gesture, then, in building out T-shape capacity as both educational “product” and a resilient dimension of our workplace culture. Our key concept is an approach to T-shape that centers attention upon and movement towards mastery of “critical thinking,” “communication,” and “collaboration.”

An early consensus amongst the task force was that the success of the initiative would be fundamentally rooted in our ability to activate students to take seriously T-shape preparation and to empower them with tools that serve to document and measure progress. In a model that privileges “empowerment” rather than some universal curricular change, it is the RIT community’s ability to provide ongoing, strategic, actionable feedback on the fullest range of the student experience that is most crucial.

Our core concept emerged out of extended engagement with the ways key areas of concern were repeated in the literature and our shared sense that achievement of T-shape would be a matter of both engaging particular desired outcomes and the cultivation of particular habits of mind and effort to maintain a reflective stance and growth mindset.
The core concept then is the articulation of “Communication, Collaboration, and Critical Thinking” as a critical nexus within the horizontal axis of the T. That nexus is embedded within a set of thinking and reflective practices by which the student becomes empowered to tell their own story about the emergence of their professional identity, the future of the world of work in general, and a deep knowledge of their distinctive contribution as an empathetic, responsive, and engaged human being.

We imagine a dialogic relationship between the student and the RIT community such that:

The RIT Student:
- Is messaged early about the future of work, the shape of a career trajectory, the meaning of the “T”
- Acted during their academic career to build a resilient and comprehensive skill set that took advantage of curricular, co-curricular, and extracurricular opportunities
- Effectively documented an emergent skill set utilizing consensus and disciplinary appropriate tools
- Was guided, coached, advised and mentored by a variety of RIT personnel in ways specific to the “T-concept” and was provided actionable feedback to address opportunities and deficiencies in the skill set

The RIT Community:
- Works across institutional silos to build a comprehensive and coherent approach to supporting the development of T-shaped students and alumni
- Has found common language to describe T-shape in ways specific to RIT
- Is committed to the T-Concept as a key differentiator for the RIT experience
- Enthusiastically shares best practices in building T-competence in each learning domain
- Uses T-terminology in building reflective practice and professional development pathways specific to local disciplinary/work cultures

The “3Cs” core concept is attractive not only as a reasoned synthesis of competency recommendations from wide employment sectors and diverse stakeholders, but is well articulated against current RIT assessment strengths. We already regularly assess communication and critical thinking and have diverse campus resources and traditions to build upon. The concept enhances our investments in the Fram Chair in Critical Thinking, our ongoing academic assessment process, our deep School of Communication, and our articulation of “essential learning” outcomes.
RIT has a distinctive opportunity to build capacity and take national leadership in assessing and evaluating competency building in and around collaboration and teamwork. In this regard, the concept resonates powerfully with our institutional commitment extending interdisciplinary reach and productivity. We can find much synergy between a T-practice that seeks to produce students who are exemplary collaborators and team-mates and interdisciplinary difference makers that emphasis boundary crossing capacity and building new partnerships. In this area, we build then, on rich work in creative team building in Interactive Games and Media and Industrial Design, long, hallowed traditions in intercollegiate athletics, growing and vibrant work in interdisciplinary capstones across colleges, community based problem solving enterprises in rich partnership with the nonprofit sector, extending the reach of our Center for Leadership and Civic Engagement, and a rich entrepreneurial ecosystem that prioritizes effective teamwork in new venture development.

![Diagram: Which Essential Skills are Hardest to Hire?](chart.png)

Modified Version of Herk, CED, 2015 -- highlighting RIT concept.

Our distillation of multiple rich articulations of key transversal skills from distinctive employment domains, matches nicely not only with emergent and ongoing institutional
strengths, but also intersects significantly with other efforts to do similar work. The World Economic Forum’s framing of K16 T-shape capacity building nicely overlaps our own formulation. Ultimately our framing of three Cs out of our collecting, listening and refining is idiosyncratic and local, but as more synthetic models emerge, we are confident we will see a kind of verification our deliberations.


**Recommendations -- Leveraging an Opportunity for RIT**

The recommendations below speak to initial steps RIT should consider in order to maximize the buy-in of the T-shape concept -- and the larger idea of a shared culture of reflection -- to students, faculty and staff, and external stakeholders:

**Managing and Messaging T-shape**

1. Building a Culture of Reflection Requires a Permanent University Committee staffed and supported to oversee implementation of the T-Concept
2. T-shape Competency and Capacity should become a central part of our RIT branding strategy
3. T-shape literacy requires a coordinated and well-managed web presence -- with ongoing curation of developments in the discourse of industry, higher education, and philanthropy
4. Effective messaging of T-shape requires a comprehensive plan to engage students on the rich interrelationship between employability, career arc, and general education participation and outcomes. We need to merge our efforts to revisit general education and our enthusiasm for the T-shape story.

Building Professional Capacity and Knowledge

1. Developing understanding of T-shape best practices in teaching, advising, mentor, assessment, and planning will require a multi-pronged investment in professional development resources in the Wallace Center, the Center for Professional Development, and the Innovative Learning Institute. This investment should be a mixture of training, development and redevelopment grants, and opportunities for retreat and reflection.
2. Consideration should be given to funding and nurturing an annual lecture series in T-shape and related developments in the career preparation field and more speculative inquiry into the past, present, and future of work.

Planning and Building

1. Our deliberations and investigation revealed a dynamic connection between the human relations processes that impact development of empathic transversal competencies and our experience of the built environment. We would argue for the formal insertion of T-shape principles and priorities integrated into Campus Master Planning Process.

Building a Shared Culture of Reflection

1. Similar to reflective practices of the past decade that have led to us becoming a global university urgently able to communicate to students the value of international experience and thus to ensure that transformative international experience is in reach of all students; and similar to our reflective and constructive practices that have allowed us to build a resilient and exemplary entrepreneurship ecosystem -- we recommend that each divisional Vice President instruct their reports to build out a deliberative process that investigates where they are best able to inculcate T competencies in students and a shared culture of reflection that engages T-shape in all dimensions of RIT’s work culture. These processes might reveal, for instance, key developmental touchpoints in a unit’s interaction with students, well-structured to support documentation of experience, reflection on experience, and new action, or may similarly reveal dimensions of our key concept below that might inform internal professional development practice in the unit.
2. Orientation experiences for new faculty and staff are packed and fragile -- but we encourage the development of messaging that reinforces our deep commitment to T-shape capacity and competence amongst all members of the RIT community.

**RIT For Life**

1. Our T-shape commitment should be developed and nurtured over the largest potential course of our relationship with all stakeholders. We encourage the development of communication strategies in our K12 programming, our admissions and recruitment outreach, and in our alumni relations programming that emphasizes RIT's commitment to developing the whole individual as a life-long learner able to thrive as part of an employment team, as a citizen, and as a life-long learner active towards self-actualization.
Part III: Empowering Students

The most fundamental commitment of the task force has been that the success of this dimension of the strategic plan is dependent on strong messaging to students, vigorous mentorship and coaching, but, ultimately, student adoption of the core concept and rich recognition of its value in launching them on a path of professional success and life-long learning. We want to produce students aware of the future of work, aware of lasting competencies and character traits that produce satisfying professional lives and transformational civic engagement, indeed, life-long learners capable of telling their story in ways that produce both career and personal satisfaction.

As we’ve said often to this point, we think a shared culture of reflection is most able to generate or scaffold these outcomes. Empowered, able, skilled RIT employees will be best able to support student thriving in this environment with a rich formative record readily available and most likely to produce distinctive and progressive action. The academic transcript is our consensus tool as a measure of satisfactory academic progress, but doesn’t readily reveal student embrace of the largest set of transversal skill development. It’s a protected tool, not always readily accessible, and a cognitive frame that encourages students and employers alike to take an autopsy-like look at learning and growth.

While there is a rich and active national conversation on alternative visualizations of student learning -- whether enhanced resumes, e-portfolios, co-curricular transcripts, new learning relationship platforms, proto-professional tools like LinkedIn, and the like -- there is no consensus agreement on the tool best able to capture T-shape development, or the tool most likely to be continuously valuable in a job search or HR process. Furthermore, there are standing problems with verification, security, continuity, and costs.

The RIT landscape reveals a rich array of available documentary tools. LinkedIn remains the consensus launch platform for eventual professional presentation of self and some units have built developmental processes to prepare for that eventuality. Other units, especially in visual studies, product and process design, and sometimes in engineering and computing, have seen significant penetration (some student driven, some by departments) in the use of a tool like Adobe’s Behance. Other units, still, have developed homegrown portfolio templates that are strong on local need, less so on broad or cross-disciplinary temperature taking. There remain legacy tools meant to help students document service or extracurricular activity, and many students are coached by faculty or staff or self-manage the emergence of a personal brand via social media.
This richly decentralized space should give us some pause as it most certainly speaks to diverse purposes and disciplinary peculiarity in the documentation of professional identity. Our best judgment at this juncture is that RIT should adopt a number of vigorous pilots to discover flexible instruments that will stick with students beyond graduation and have functionality to distribute easily to potentially hard to anticipate stakeholders. We want to ensure that we end up with dynamic rather than static tools, easy to modify and extend, and with good integration with social media. Whether a student is bringing to the table an intercollegiate sports experience, a community engagement activity, independent research or team-based capstone, the cycle should include: document, reflect, consult -- take action.

Employers are engaging in modern hiring practices where articulation and evidence of skill and ability are replacing the static application. Evidence-based hiring requires pathways for artifacts demonstrating skill and ability. Students who have curated elements of digital currency will be better matched in the job search and career development process. RIT should support students in crafting their personal narrative, yet students are using a lot of tools and we need to allow for cross medium connectivity.

Key Touch-points and the Building of the Record

Our interviews across campus illuminated abundant examples of where RIT has plentiful opportunity to extend and improve the quality of key touch points with students and insert pointed, informed, and authentic engagement with a holistic approach to the meaning of the post-secondary experience.

The following are some selected opportunities for RIT to build upon current strengths to enhance the quality of the connection between a student and RIT community member.

Recruitment, Orientation, On-Boarding

Multiple stakeholders identified that it is requisite to introduce students early to the value of a process that includes self-reflection, planning, development, and demonstration of competencies relevant to the work world and lifelong learning. Key opportunities to frame and become acclimated with the culture of professional competencies development have been identified within programming experienced within the first year, such as New Student Orientation, the YearOne course, and the Residential Education Curriculum.

The clearest articulation of our institutional investment in the YearOne course is the formation of students’ connections to RIT and basic understanding of themselves in the beginning of the college experience. Embedding the T-shape agenda into the fabric of this course demands identifying how to seed the behaviors that are most likely to produce successful employees in the outcomes of YearOne. What work can be done to assist students in navigating and selecting experiences, connect to and extend career counseling work, draw students’ attention to some of the tools used in documenting and displaying competencies? It is imperative to understand the structural demands on the YearOne course and explore ways to
reinforce the concepts beyond the course. An inherent value is the guarantee that first year students are engaging regularly with professionals and peers around RIT’s central messaging, the power of being self-critical and making purposeful choices about experiences and engagement. There is an obvious intersection point with New Student Orientation programming leading into YearOne but where is the conversation going to be picked up after YearOne?

The Residential Education Curriculum includes programs and experiences that look to engage students in ways that support academic development and encourage personal development. Guided Conversations are just one of the structured opportunities for paraprofessional staff to connect one-on-one with residential students reflecting and reframing. While many upper level students live in off-campus housing, there remain opportunities for Residential Education to engage the students in campus housing beyond the first year.

**Advising**
The move to professional advising on our campus has been a crucial part of a strategy to begin to make the turn on our on-time graduation, completion, and retention struggles. Professional advisors are trained to engage students on institutional procedures and practices with specific attention to developmental challenges faced by college students. At their very best, our professional advisors are our first line of engagement and arguably the most key individuals in our ability to impact student planning and decision-making. Advising cultures do vary by discipline and academic leadership style, and our previous cautions about ensuring an implementation practice that allows for local adoption and adaptation still stand. Our academic advisors, however, are well positioned to help students engage T-shape capacity by building in targeted inquiry practices that can enhance our ability to ensure that students take advantage of RIT’s investment in strategic career support skills. For some advisors, this can be the opportunity to gather up a specific extended and acknowledged skill set in T-shape support.

For those units that still rely on incisive faculty advising support for undergraduate research, study abroad, co-op education preparation, capstone supervision -- and just general mentoring and coaching -- there are similar opportunities to engage peer and external professional development in support of integrated approaches to T-shape capacity and actions.

**Traditional Career Services Support**
The Office of Career Services and Cooperative Education offers a variety of services to support students and alumni in the achievement of their experiential learning, career and employment goals. Eighteen Career Services Coordinators support specific academic departments and meet with students and alumni on career and employment matters. These sessions are critical to developing individual job search plans and addressing the many questions and issues that arise during the job search process. Walk in hours, individual meetings, courses, orientations, and workshops prepare students for job search by focusing on a wide range of topics such as resume writing and interviewing skills. Two Career Counselors are on hand to support students through career related decision-making, such as selecting a
major. The RIT Professional Network, co-sponsored by RIT’s Alumni Association Board of Directors and the Offices of Career Services and Cooperative Education and Alumni Relations, provides yet another point of connection for RIT students. Through the Professional Network, RIT alumni, employers, and friends of the Institute volunteer to provide current students and alumni with career development support, counsel, guidance, reinforcement and constructive examples. In addition to in-person support, the office offers interviewing practice, career field information, and job opportunities through online resources and works behind the scenes to build opportunities for students. The Career Service and Cooperative Education office works diligently to develop and maintain relationships with employers in order to create co-op job opportunities and to list job openings for our graduating students, as well as sponsoring two major career fairs bringing hundreds of employers to campus to meet with and interview students.

Coaching, Mentoring, and Framing the Student Experience

A variety of Student Life experiences reinforce General Education outcomes from a perspective of professional competencies and highlight for students the translation/synchronization of learning across curricular, co-curricular, and extra-curricular programming (what is learned in one domain is applicable in other domains). Student Affairs is home to over 240 active clubs and Major Student Organizations, a hotbed for experiences in the context of specific interests that test, develop, and highlight lifelong skills such as organizing, setting goals, designing, presenting ideas, and negotiating. Multidisciplinary student led projects (i.e. Hackathon and ToraCon) as well as special interest housing (i.e. House of General Science) provide students of varied disciplines opportunities to work together to engage and solve problems, as well as to plan and execute large events.

Student Affairs is currently involved in a technology investigation project to identify and implement a more effective way to manage student organizations and student engagement, as well as exploring how to leverage this tool to assist students in developing an intentional path of meaningful engagement. The solution will be another potential touchpoint for student guided identification of action steps in carving out their unique roles on campus. At the completion of this project students at RIT should be able to seamlessly access information about ways to become more engaged on campus.

Student commentary highlighted that, when working closely with more experienced peers and club advisors, organization members and leaders have access to feedback, guidance, and support not necessarily available to all. Students noted the resource implications when urging that more students should have access to such reflective experiences vital to determination of goals and action steps in personal development. Availability and training are some challenges to affording a more consistent high touch experience within the student organization advisor model.

It is truism but still with merit to insist upon the translational skill set that comes from participation in NCAA Athletics and Intramurals. Indeed -- we should celebrate the learning that comes from all academic and nonacademic activities that place students in rich
interdependence. Our students compete on diverse playing fields, some high profile and some less so, but, regardless, such spaces are some of the most important when it comes to learning about leadership capacities beyond a limited technical skill set associated with competence in a particular professional domain. Our professional athletics coaches are typically well-trained and prepared when it comes to speaking to families and students about the relationship between playing field perseverance and life-success. Indeed, we are perhaps all well-equipped to point to metaphors and analogies that connect well notions of resilience, support of the team, leadership from adversity, and learning from failure in athletic and later life scenarios.

It is not obvious that we have extended to faculty and staff volunteers who manage a remarkable array of student leisure and pre-professional activities the same indirect endorsement of the value of their work by making similar pointed connections. That absence of value recognition is probably paralleled by the ways in which we offer little support to organization advisors to neither frame the value of their voluntarism in their plans of work nor provide little training beyond emphasizing their risk-management function.

Diversity and Inclusion
Our conversation and inquiry has highlighted that there is significant overlap across the T-shape practice and the agenda of our diversity and inclusion support units. On the one hand, in engaging the complexity of a vital institutional T-shape strategy, we have highlighted that it will be crucial not to assume that all students will come to the challenge with similar backgrounds and experiences. On the other, from a human relations perspective, we also highlight that the work of becoming an exemplary T-shape professional looks a great deal like what we ask of students in taking seriously their responsibilities as members of a diverse community: cultivate empathy, understand the limits of your perspective, and take seriously expressions of hurt and harm. We see, then, remarkable opportunity here to doubly energize students and engage key institutional values. We can message students that becoming a knowledgeable member of the university community and taking seriously the experience of its diverse members is one of the most pointed ways in which an individual can prepare for a complex workplace. Similarly, we can cultivate buy-in on a more complex view of career preparation by emphasizing its intersection with the project of becoming a good roommate, a good team member, or an exemplary citizen of RIT.

Campus Employment
On-campus employment is an opportunity for students to develop a broad range of competencies, including those identified as transversal skills. Students work in many different roles on campus. Some offer experience directly related to academic disciplines but all can serve to embolden professionalism. Based on an analysis of campus employment data provided by The Office of Institutional Research, about 65% of undergraduate students hold at least one paid student staff position on campus during their career at RIT. Currently, there is a wide range of supervision and appraisal models in place. Information gathered from the Student Employment Office indicates that, in current state, there is no central understanding of the methods and consistency with which students are receiving employment feedback and development opportunities. It is recommended that student staff receive evaluations but it is
left to each employer to manage any process around evaluations. The number of student employees and context in which they work varies across functional domains and RIT offices. A Student Employee Appraisal Form is available on the SEO website but the use of this is not centrally managed and the Student Employment Office lacks data to suggest how it is being utilized across campus. https://www.rit.edu/emcs/seo/assets/docs/student-appraisal-form.pdf
A supervisor training workshop (Hiring, Supervising, and Retaining Student Employees) is offered through the Center for Professional Development.

Learning from Cooperative Education

Our most transparent articulation of the high value we place upon the co-mingling of external and internal factors in the development of professional competence is the institutional profile we lend to completion of workplace learning. We have by tradition and practice both a curriculum and extra-curriculum and it is arguably the key dimension of our current brand regardless of whether a student is in a program that requires such a leave of the campus community. Our strategic plan insists upon an extension of the brand identity and the educational strategy by requiring all students to have an experiential learning opportunity in the course of their degree path.

This doubling down upon our double strategy is a good gamble but should be extended by dedicating time and resources into our ability to refine the story that we tell about both the soundness of this educational strategy and the benefits that occur from the path. We rely too heavily on anecdote or an implicit policy of assumed transparency of a learning good. We need to get better at looking inward and engaging our most important commitments.

From the standpoint of extending and improving key touch-points in student preparation and growth, we would highlight our work in preparing students for the cooperative educational experience and debriefing their return to campus. Not surprisingly, those programs most heavily invested in the cooperative education experience tend to be the most highly structured in preparing students for work and further in helping them to reflect upon their return. That said -- there is great variance across the campus in how we do this work, and while some difference is a reflection of scale and local values, this may be a good moment in looking to standardize parts of the student experience.

We will discuss institutional data gathering below, but part of our argument here is that some standardization -- the establishment of minimal expectations -- will increase our institutional ability to not only instigate students to best practice interventions and next steps, but is key to stewarding our brand identity and historical legacy as the most effective institution at productively entangling the classroom, the extracurricular field, and the metaphorical shop floor.

Career Curriculum

Many departments have built explicit curriculum structures that require students to reflect directly and self-consciously on steps necessary to either cooperative education success or T-shape development. There is currently no data on the relative success of these efforts --
that is no comparative study that we know of the considers the resource allocation associated with such curriculum and the return in terms of either traditional success measures (retention, graduation, positive employer reviews) or more indirect shaping of a student consciousness or movement towards T-shape. Our interim instinct is to celebrate any and all substantive touchpoints and to highlight anecdotal student responses during our inquiry that has expressed appreciation for deliberate, early, and sustained efforts to prepare students for career fairs, co-ops, and permanent employment. Once again, we are presented with an opportunity to think about the role that general education plays in employability, and have an opportunity to encourage students to think self-consciously about course selection as a means to meeting T-shape competency targets.

**Other Touch-points**

There are, of course, seemingly an infinite number of locations at which RIT personnel have substantive contact with students outside the classroom and thus good opportunity to impact student decision making and shaping of the T-shape record. Above we have highlighted those that seem to us most key and most ripe for a supported reframing that gets RIT renewed and enhanced attention to holistic career or T-shape profile. Undergraduate Research opportunities most certainly provide moments for faculty mentors to engage students directly on the accumulation of translational skills and, moreover, applied learning can generate significant opportunity for T-shape growth. Similarly, study abroad builds transversal skills, confidence, and expands knowledge across disciplinary domains and competence in multiple systems. Our Center for Community Leadership and Civic Engagement in Student Affairs and the Office for Community Partnerships in Academic Affairs each provide opportunities for students to engage meaningful connections to community organizations and chances for service. These opportunities develop empathy and perspective and build the social and personal awareness necessary for comprehensive T-shape. Regardless of the nature or intensity of the skills-enhancement opportunities provided or the different ways RIT takes students out into the world, our contention remains that it is the quality of the conversation we provide -- in preparation, in support, and in debriefing that leads to pointed and informed action -- that brings the most significant value to the career education equation.

Indeed, we should not lose track of the ways in which our standard and technology-enhanced direct assessment work -- assignment feedback and letter grades -- provide a great deal of opportunity to deliver formative responses that assist students in building confidence in technical and T-shape skills and competencies. Our investment in a comprehensive learning management system and urgent feedback tools like Starfish mean that continuous and seamless feedback is a real possibility.

We have previously highlighted RIT for Life as an opportunity to build a continuum of reflection on the nature and character of work from the high school student and admissions candidate thinking about vocation through the RIT alumnus approaching retirement and considering the meaning of a personal career arc. More pragmatically -- we have rich opportunities to connect emergent students with individuals mature in their careers and able to assist students in the work of discovering meaningful T-shape.
Tools for Documentation

It is clear that a significant component of any T-shape initiative is institutional effort to ensure that students are bringing evidence of T-shape development to a well-structured, shareable, and sustainable location, either analog or digital in nature. We need students to take conscious and well-informed steps to gather key evidence that will ground their ability to tell the story of their development of T-shape and assist employers in assessing progress, accomplishment, and fit.

Typically, students do little in the early part of their college careers to track career or any other progress. Some of our students compile skeletal resumes, and some are encouraged earlier to develop a basic LinkedIn Profile. Non-strategically, some students utilize social media to share emergent professional identity, and sometimes early iterations of intellectual property or descriptions of crucial early experiences in employment, or RIT-based experiences that they recognize as having long term career or T-shape import. It’s not typically until they need to think about a cooperative education placement, a Career Fair appearance, or pursuit of an internship or non-cooperative education employment that work is done more systematically. Students who make their way Career Services most certainly get support in resume development and instruction in basic documentation practice.

Currently we do not utilize our onboarding or orientation practice -- or our admissions practice -- to instruct in or guide students towards key documentary tools and or best practices. The opportunity here is to begin to build an orientation towards T-shape development and to look for spaces in which the institution builds its own capacity to judge progress and the quality of its own service model.

Across campus we have found a range of tools and strategies that assist students in developing the capacity to tell their story to employers and others invested in their growth and success. Our quick scan of college based practice would suggest that our current investment is in establishing students in the latter half of their academic careers for success in the cooperative education arena and again for permanent placement.

There is a remarkable array of new technologies emerging to both extend our work in providing students with reliable, informed, and engaged touchpoints. These tools extend the capacity of fundamentally analog tools: notebooks, file folders, physical portfolios. Digital technology allows for more robust presentation, especially of non-textual artifacts. Emerging tools and technology promise (a) individual student command of best-practice graphic and other design; (b) the ability to share directly with employers; (c) the ability of employers to seek out applicants with specific competencies; (d) the capacity for RIT to track learning towards mastery in T-competence; and (e) the marshalling of machine learning to connect students to opportunities and colleagues via natural language enquiries.
Recommendations: Empowering Students to T-shape

One of the most compelling functions of the work to engage a culture around empowering students to emerge as T-shape graduates is that we have professionals across campus thinking about what the shared educational mission responsibility might be. All indications are that consistent messaging to all stakeholders will be crucial but so will letting departments and programs figure out how to operationalize this at the local level.

Access to Resources and Information.
1. Resources should be found to support the establishment of web environment for students that gathers resources in a single location. This web environment should keep students abreast of the discourse of T-shape and related framings of work-readiness from a variety of industry sectors. The environment should also update on articles on the future of work and key employment trends. Finally, the environment should also provide news and updates on emergent and current professionalization tools.
2. We recommend that any permanent committee to manage our T-shape programming and assessment activities include both undergraduate and graduate representatives from student government.
3. We recommend strategic use of PLIG grants to both encourage new course development that focuses explicitly on T-shape or career readiness, or grants that extend capacity of think already existing courses to embed activities that enhance collaboration and teamwork. Similarly, some granting activity should be established that supports junior faculty in the incorporation of career-based activities in emergent courses.
4. We recommend that resources be established that support activities in non-academic units to adapt and modify student programming and processes in support of T-shape activities
5. Consideration should be given to the development of annual award to an individual, team or department for innovation in the establishment of T-shape programming, assessment, or support.
6. We recommend that strategic teams be established and resourced appropriately to develop cohesive plans to integrate T-shape messaging and experiences
   a. across the entering student experiences (including but not limited to New Student Orientation, Residential Education Curriculum, and YearOne) to coherently frame and engage students in active participation in the professional competencies agenda;
   b. to revise aspects of the YearOne course as a springboard into the RIT college educational experience and framed around the “T”;
   c. to develop processes that will assist students in navigating and selecting experiences, throughout co-curricular student life programming, that will align with identified action items stemming from self-reflection and/or feedback.
7. Consideration should be given to the merging of efforts to directly communicate to students on the value of T-Shape and the meaning of general education.
Access to Tools

1. We recommend that a pool of funds be established that would allow departments to shape pilot projects that engage emergent and disciplinary/industry domain specific career development and portfolio tools.
2. We recommend that in 2017-2018 we systematically consider established and emergent moderate to low cost tools for career exploration and documentation. The charge would be to evaluate the tools for their ability to extend students’ sense of the T, to support effective documentation of the emergence of T-shape profile, to provide RIT with actionable feedback on student growth and development with regards to the T, and to assist departments and programs in evaluating their own progress in inculcating T-shape skills and competencies.
3. We recommend that ECMS be supported to provide training to students on consensus and emergent career development and documentation tools.
4. We recommend that whatever body is established to manage T-shaped progress moving forward be empowered to actively track and evaluate emergent educational technology designed to extend students’ documentary and self-evaluative capacity.
5. We encourage the Corporate Relations team to leverage current company partnerships to provide students with extended training and access partner tools and technology, e.g., Adobe Behance

Access to Feedback

1. We recommend CPD, Human Resources, the Center for Campus Life and the Wallace Center collaborate to evaluate potential opportunities for the training of individuals and teams who provide non-academic supervision of students, e.g., student worker supervisors, club advisors, etc., with regard to best practice in coaching and mentor towards T-shape; similarly, we recommend that the Office of Student Employment construct a plan to assist direct supervisors build out a strategy to develop T-shape driven templates for evaluation and assessment, as per #3 below.
2. We recommend that RIT explore policy assurances that all students who go out on cooperative education assignment be guaranteed a debriefing of their experience by a skilled practitioner at RIT that leads to an action plan on the part of a student.
3. We recommend that all students involved in on-campus employment should receive at least one performance appraisal, which will serve as an occasion to debrief on performance according to job duties and professional skills development, as well as identify opportunities to further cultivate selected skills. The following resource considerations are proposed:
   a. Standardized appraisal template that incorporates the Professional Competencies identified as the RIT profile (Communication, Collaboration, and Critical Thinking).
   b. Training and resources for staff and faculty in the use of the template, performance appraisal skills, and empowering students to select relevant next steps in cultivating selected skills.
c. A variety of supervisory models that will accommodate a genuine feedback process effective for the broad range of student staff team sizes and contexts. Complexities arise based on size of student staff reporting to individual supervisors and the context of the work being completed.
Part IV: Finding Our Strengths and Guiding Our Growth

We have a rich data collecting practice on campus such that we can examine T-shape through the lens of professional competency development. Indeed, we have come to the conclusion that we are data rich and must invest significant resources in preserving and stewarding our most distinctive datasets. We participate in standard national surveys and are actively building a responsive, authentic ongoing assessment environment. We attempt to frame ongoing conversation as part of our RIT For Life strategy -- but it must be said that we have come to believe that the entangled data sets that represent employee feedback on student cooperative educational experiences and student reflection on that same feedback is potentially designation of our richest historical legacy. We describe below our current data gathering process, available campus resources in support of assessment and strategic plan progress, and new opportunities for securing our place as the nation’s premier career focused institution.

Current Data Landscape

The National Survey of Student Engagement (NSSE). In the past, we have looked at NSSE data for information about the quality of our production of a particular set of academic learning outcomes, as well as to identify engagement in a variety of campus-wide impactful activities. Our inquiry of the available NSSE data set confirmed alignment of multiple survey items with T-shape competencies developed through curricular pathways. Continually trying to get at these questions from the holistic perspective, not just the classroom perspective, we identified a need to enhance the reporting capabilities of the RIT NSSE data set through the addition of a topical module to RIT’s NSSE administration plans. The Development of Transferable Skills module focuses on applied demonstration, through activities “whether course-related or not”, of competencies broadly accepted within the T-shape domain.

General Education Assessment. RIT’s five Educational Goals were designed as broad learning goals and are articulated through the mapping to academic degree program goals. Two of RIT’s five Educational Goals are Critical Thinking and Communication.

RIT has intentionally tied the extent to which students meet its five Educational Goals to the degree program assessment processes. Second, RIT’s General Education framework serves as a strong backbone to the T-shape initiative as both Critical Thinking and Communication are considered essential skills. We currently measure the extent to which students meet the General Education Student Learning Outcomes associated with these two competencies. The university-level Educational Goals and General Education Student Learning outcomes are embedded throughout the undergraduate degree to help deepen these competencies. (See the attached summary of RIT’s current assessment opportunities.)
Collaboration is currently assessed through program (courses and co-op evaluations) and university assessment practices (e.g., Alumni Survey, NSSE), but we do not have a university definition or associated set of outcomes within the General Education Framework or Educational Goals.

**Co-op Work Evaluations.** Cooperative Education programming is a hallmark of the RIT brand. The majority of students graduate having had at least one co-op work experience. Co-op at RIT is a college based program, administered centrally through Career Services and Cooperative Education. Consumption of and reflection upon feedback provided within a supervisor evaluation, a standardized and required component of the co-op experience, is dictated by the academic program and varies in scope and practice, from grading procedures to reflective debrief meetings. Staff of Career Services and Cooperative Education supplement the co-op grading process in the academic department by reviewing student and employer co-op work reports as part of the coaching and advising process.

Student, staff, and faculty from across the University agree that information captured through the co-op work evaluation process may be RIT’s richest and most valuable data set. There is an opportunity to leverage co-op feedback both for the purposes of assessment and to build an advising and mentoring practice that moves students to making strategic curricular and extracurricular choices in the building of T-shape competencies.

**Student Life Assessment.** The Division of Student Affairs is committed to creating a stimulating learning environment that empowers students to develop and apply competencies across domains. Current data collection efforts have focused on capturing and demonstrating the value of student engagement in leadership roles, clubs/organizations, courses, athletics teams, programming, and events. As part of the 2015-2020 Student Affairs Strategic Plan, a team set out to identify and promote recognized pathways in Divisional curricular and cocurricular experiences for the development a set of skills that graduates will need for future success and lifelong learning. Future emphasis will be placed on student demonstration, evaluation, and articulation of professional competencies in collaboration with University partners.

**Alumni Relations Surveys.** The Division of Development and Alumni Relations collects a variety of information from the general alumni population framed in categories of loyalty, the student experience, the overall experience of the University, and post-graduation and career outcomes to continue to foster positive and lifelong connections to the RIT community. The Alumni attitudinal survey is administered every three years and has been used in multiple ways across the university to understand the student experience and selected outcomes, such as the Middles States Accreditation work and in Fram Chair in Applied Critical Thinking research.

**Departmental Exit Interviews and Alumni Check-ins.** Exit interviews upon graduation have the potential to serve as distinctive opportunities for emerging professionals to present their unique talents and their plans for applying them as they enter a highly competitive job
market, while at the same time uncovering the key programmatic strengths and opportunities with respect to broad-based career and discipline specific preparation.

**Career Services and Cooperative Education - Universum Talent Research.** RIT participates annually in a survey from Universum, as administered through the Office of Career Services and Cooperative Education. This targeted assessment seeks, in part, to understand student readiness for professional life and career expectations in order to support institutions of higher education in preparing graduates to enter the work world, and close the gap between expectations of employers and job candidates. According to this survey, employability is measured by the combination of skills, attitudes, and knowledge. Insights from the most recent administration of this survey (completed by over 700 RIT students and a comparison group of over 72,000) offer RIT student self-identification on items related to international mindset, leadership potential, skill confidence, and practical experience that are widely valuable to our understanding of delivery on our T-shape promise. Additionally, this survey monitors student impressions of the university-based services offered related career development and job search preparation.

**Recommendations: Collaboration and Data Management**
Various constituencies are interested in making learning assessment data more accessible for students, faculty, and staff. Students’ ability to create and enact action plans based on guided performance evaluation is crucial to continued development, and administrative planning and reporting is dependent on effective and robust data collection techniques.

**Stewardship of the Career Legacy**

1. Cooperative Education evaluation data -- both employer and student reflection -- is a crucial piece of RIT’s career-centered brand and should be managed accordingly. The AVP for Cooperative Education and Career Services should be empowered, staffed, and resourced to steward those resources in ways that make the data actionable by academic and student services units that want to frame improvements in the development of student T-shape competencies.

2. An action plan should be developed that comprehensively reviews the ways in which the T-Shape schema (Critical Thinking, Communication, and Collaboration) can be effectively incorporated into current co-op evaluation methods.

3. We should further explore the feasibility of making co-operative education data accessible and usable across the educational experience. We should be committed to making cooperative education data a key action item in academic/faculty advising and further available by student permission to other key mentors and coaches.
Leadership in Assessment of T Shape

1. RIT has an opportunity to become a national leader in the assessment of T-shape skills and competencies. Divisional VPs should be tasked with ensuring that relevant data is well-stewardied. The coordinating committee for T-shape activities should be tasked with synthesizing data on a biennial basis that both highlights RIT progress towards saturation of the T-concept and our ability to extract data related to key T-competencies from our regular annual assessment processes.

2. We effectively make effort in our academic improvement process to report on a regular cycle our effectiveness in building functional competence in communication and critical thinking and are further supported by the efforts of the Fram Chair in Critical Thinking. Our stretch goal to be supported and resourced is to develop innovative practices in the measurement of student competence in teamwork and collaboration. We recommend that a subcommittee of the ongoing T-shape team work with the Assistant Provost for Assessment and Accreditation, the Executive Director for Assessment, Communication and Technology in Student Affairs, and the Assistant VP for Career Services to develop tools and processes to establish national best practices in measurement of student competence in teamwork and collaboration and to help measure RIT progress in building that capacity.

3. The ongoing T-shape committee, in consultation with the General Education Committee, and the Assistant Provost for Assessment and Accreditation, should develop an alignment plan to best synthesize RIT’s multiple sets of learning outcomes in ways that minimizes message confusion to students and moves the RIT community towards consensus definitions of key terms (See Appendix A) and best determine how to communicate and market a shared vision of the integration of RIT’s competencies (Educational Goals, General Education Student Learning Outcomes, and T-shaped Competencies) to the campus community.

Integrating Data Across Divisions

1. Consideration should be given to how the valuable data from multiple sources across campus can be brought together most effectively to tell the story of RIT’s T-shape work. We recommend that a methodology be imposed for regularly sharing relevant information and data with the cross-divisional team managing the T-shape progress for continued exploration of leveraging our rich data sets in delivery, assessment, and communication of the T-shape work. There may be aspects of current and emergent applications that can be investigated as solutions to any identified physical data sharing barriers but the crucial aspect of this recommendation is ultimately about continued nurturing of the budding information management relationships across RIT in the spirit of supporting student success through information sharing across appropriate networks.
2. We recommend further exploration of ways to use existing and new pathways to promote and identify opportunities to share data across business units and Divisions that will assist all professionals in empowering students to reflect on competency development and action steps. Meaningful change can occur for individuals when coherent evaluation is happening across domains.

Understanding Experiential Learning

1. The Strategic Plan calls for a guarantee that all students will enact plans of study that at minimum includes a single focused experiential learning activity. Such a commitment extends RIT’s commitments to applied and practical learning and has great potential for documenting and achieving T-competence. To date, our definition of experiential learning is loose and decentralized which deserves further reflection. More importantly, we should take early steps to ensure that students who choose an experiential learning opportunity should be engaged in ways similar to best practice in the cooperative education domain: students should (a) be prepared for the experience by personnel who can help them thrive in the experience; (b) be assured feedback that speaks specifically to the experience’s engagement with the world of work; and (c) have access to direct debriefing on the feedback in ways that make possible informed remediation or efforts to build or extend T-skills and competencies.
Conclusions

Illustrative Case - Our Hypothetical 2025 Alumnus

2025. Karen is a recent RIT alum and highly valued by her employer. She has quickly moved beyond the position for which she was originally hired and has been given greater and greater responsibility. She’s highly valued as a team-member and co-worker.

When Karen first came in contact with RIT in the 11th Grade in 2019 she was told about how post-secondary education was an opportunity to learn how to learn, to gain knowledge in a specific area of study, and to pursue knowledge such that she was equipped for ongoing change, and especially a changing world of work dominated by increasing automation. Karen was told about “T-shaped Competence” as an end goal and process.

When Karen first arrived on campus, RIT helped her to think about how the experience of first living away from home was critical preparation for employment and life success. In each of her orientation, Year One, and general education experiences, she encountered instructors knowledgeable about not only a disciplinary or professional perspective, but enthusiastic about talking about applied life experience, and the shaping of a career path. Skilled conversation partners -- advisors, faculty, informal and formal coaches -- helped Karen think about strategic choice of extracurricular and general education options and how they scaffolded new choices and an emergent professional identity. Further they taught Karen about the value of documenting all of these experiences and becoming reflective about personal strengths and weaknesses. Karen appreciated having a fully articulated T-concept against which to document her progress and imagine new challenges. RIT provided a rich array of educational technology that assisted this work, all of it meant to augment the primary work of active reflection with a range of community members -- staff, faculty, peers, alumni, and employer partners.

As Karen settled into her disciplinary path, she carried with her a rich portfolio of curricular, co-curricular, and campus employment experiences. Skilled listeners helped Karen extract from those experiences the competencies she was beginning to embody, and to think about how to use those same kinds of experiences to build a richer record and engage key gaps. Curricular choices were made not only to serve convenience, but to extend the competence building. Co-op, internship, and other experiential learning opportunities were actively reflected upon and debriefed such that they became part of a dynamic, extended record. Karen became adept at not only the application of technical skills, but the ability to reflect on any experience she had at RIT and think about it in terms of achievement of T-competence.
By the time Karen completed her multidisciplinary capstone experience, by working on an industry provided problem, she was well able to talk about not only her preparation for a specific job role and function. She could also talk, however, about the future of that job role and function, and the skills necessary to effectively collaborate and cross-function with those whom she would be called upon to work.

At the capstone presentation, Karen’s presentation was attended by a remarkable array of RIT community members who had worked with her in multiple locations. Those community members shared a good knowledge of the literature on T-shape, but, more importantly, a strong sense of the impact of this language on campus-wide mission cohesion. They recognized too that their work had been enhanced by RIT’s effective stewardship of learning data in both the curricular and experiential domains. At each point of contact with Karen, she was able to instigate and drive the conversation because of how easy the university had made it to aggregate, order, and visualize her progress.

Karen has already moved into the alumni peer mentoring program that had assisted her along the way. Her learning portfolio has stayed with her and has become well-integrated, with her permission, into a machine learning driven educational technology platform that will inform the experience of future students and their mentors.

There are rumors that Karen’s job function may come to a close in the next decade because of either machine learning or automation driven efficiencies. Karen is not anxious about this because she has come to the job market with a strong sense of the shelf-life of her technical skill set and has been continuously training herself with both open access and RIT provided online resources for work in a parallel domain. It may not matter anyway because Karen has already been targeted by her employer for a leadership position. Her continuous display of empathy, her zero-sum approach to team based projects, her ability to skillfully translate across the concerns of customers and the needs of engineers, and her insights into growth and innovation questions because of her rich knowledge of cultural difference, human psychology, and fine questions of document interpretation.

Karen has taken rich pleasure in discovering that the bridging role she plays in her workplace is also highly valued in her community. As her community considers a new pedestrian access plan, she’s been excited to discover that she is a natural at leading deliberative discussion and local organizations are now anxious to capture her skills and time.

Thriving in her career and in civic life -- Karen is appreciative of the technical skill set that RIT has gifted her, but is more appreciative still of the way the university welcomed her into a shared culture of reflection that has extended her sense of the purposes of education. Her recognition of the necessity of lifelong learning in the age of automation drives her to stay close to alma mater and to think constantly about how to give back.

The Tiger Team and T-Modeling
There is a danger in underestimating the challenges of doing effective and authentic interdivisional work on a University campus. At its best, however, the Tiger Team example speaks to the most utopian dimension of the T-shape enterprise. RIT employees across functional domains that worked on the team and who we encountered in listening sessions are most certainly inspired by the opportunity to work in shared fashion on key questions of student development and growth. The best of Tiger Team work gets at what a shared culture of reflection might involve -- reflexive action and alternative perspective taking, efforts to understand work outside the division, ability to share data, and ability to imagine intersecting points of action and engagement.

**Key Concepts Moving Forward**

T-shape at RIT means:

(a) an institution actively engaged with the *future of work* and its impact on program development, pedagogy, and messaging to students

(b) a *shared culture of reflection* where all employees inculcate in students they encounter a dynamic, ethical, and sustainable professionalism -- even as we expect, demand, and assist in its emergence from each other

(c) maximizing *authentic touch points* with students that enhance their self-knowledge and empower them to take action to ensure a meaningful mix of breadth and depth in the emergence of their professional identify; maximizing those touch points of feedback and affirmation such that students can achieve real mastery of communication, critical thinking, and collaboration and recognize it as exemplary of any and all RIT graduates

(d) institutional provision of *tools* that enhance the ability of an RIT student to tell their T-shape story

(e) best practice *stewardship of key data* in all of our career preparation pathways and locations such that we can communicate to all stakeholders our success in preparation of *graduates who are masters of a technical skill set, closely familiar with at least one real system, cosmopolitan in outlook, team players, skilled communicators, and the world’s best problem solvers.*
References

Degree Qualification Profile (2014). *Lumina Foundation*,
https://www.luminafoundation.org/resources/dqp

http://www.aacu.org/leap/public-opinion-research/2015-students

Hart Research Associates (2013). It Takes More Than A Major: Employer Priorities for College Learning and Student Success. AAC&U,

https://www.insidehighered.com/sites/default/server_files/files/151007%20CED%20Survey%20Results%203.pdf and https://www.ced.org/blog/entry/which-skills-are-most-important-on-the-job-and-which-skills-are-in-short-sure


Appendix A
Glossary of Terms

**Adaptability**—refers to the versatility of students in responding to technical innovation, to real world open-ended questions, and to the strengths and limitations of academic and technical disciplines in their application to real world problems. Adaptability presupposes a willingness to think long-term rather than short-term, to face change with a strength of purpose, and to evolve.

**Applied Learning**—refers to the ability to apply and adapt skills, abilities, theories or methodologies to real world problems faced by local, national or global communities. See RIT General Education Framework.

**Collaboration**—refers to the cooperative involvement of students in research, development, invention and creative problem solving across the Institute. Collaborative activities take place with faculty advisors, instructors and with fellow students both within and outside the classroom, in program capstones and in advanced research courses and in informal settings.

**Communication**—refers to the skills developed across RIT’s curriculum and throughout a student’s extracurricular activities that are manifested through the ability to express oneself in expressive and written language through papers, presentations and public address. See RIT’s General Education Framework.

**Creative and Innovative Thinking**—are higher-level thought processes that imagine new possibilities. Through the application of imaginative thought and activity, something novel is conceived and/or produced. “Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.” See AACU, Creative Thinking VALUE Rubric.

**Critical Thinking**—refers to those processes required to understand and evaluate complex claims of various sorts. Critical thinking involves the evaluation of information, evidence, arguments, and theories, and the contexts in which these are encountered. It entails the questioning of different and competing perspectives, and challenging the (sometimes hidden) assumptions and inferences that determine what will count as evidence or argument. Critical thinking is learning to think in a disciplined and evaluative manner, to analyze and interpret the processes by which various claims are made and reliable conclusions are reached. See RIT’s Essential Academic Outcomes.

**Ethical Reasoning**—is the development of students’ abilities to understand and critically engage the ethical dimensions of thought, knowledge, and behaviors, and to contribute ethically to the personal, professional and larger social contexts in which they live. Realizing that behavior has
consequences for the welfare of others, learners assess reasoning processes and learn the ethical principles that help guide and evaluate actions. Such reasoning engages the underlying normative commitments and consequences of different traditions of ethical thought, of fields of knowledge, of contexts that transcend individual interest, with an appreciation for the kind of complexity that goes well beyond the binaries such as “right and wrong.” See RIT’s Essential Academic Outcomes.

**Evaluating Information**—refers to the ability to think critically about the reliability, validity, accuracy, and completeness of available information as well as access relevant information. These skills enable students to look beyond their habitually held notions, presuppositions, and perceptions toward more accurate accounts of the topics and questions with which they are confronted.

**Global Interconnectedness**—refers to the ability to understand and function in an increasingly multicultural, international, yet interconnected environment. It fosters the development of individuals to become successful professionals, civic leaders, and informed citizens in a diverse national and global society. Individuals with these competencies would: demonstrate an understanding of the relationships between diverse populations and social, economic, and political power both in the United States and globally; demonstrate knowledge of contributions made by members of diverse and/or underrepresented groups to our various communities; consider perspectives of diverse groups when making decisions; and function as members of society and as professionals with people who have ideas, beliefs, attitudes, and behaviors that are different from their own. See RIT’s Essential Academic Outcomes.

**Integrative Reasoning**—describes the integration, connection, and linkage through serious inquiry and collaborative learning of six core areas: science, computation or digital, mathematics, communication, technical, and aesthetic. It is in the intersection and synthesis of these areas that students develop the core knowledge, flexibility of thought, and responsiveness to contribute to the evolving needs of society and the world. In isolation, these areas are insufficient; rather, they function best and most meaningfully when integrated successfully and perceptively in context. See RIT’s Essential Academic Outcomes.

**Leadership**—refers to the skills students develop across the curriculum and throughout their extracurricular activities in leading and organizing groups, clubs or organizations of diverse students, toward a common goal or good. Students develop critical leadership skills and empathic relationships for personal and career success as well as develop into civic minded, contributing members of society. See RIT’s Leadership Institute and Community Service Center.

**Motivation**—comprises the initiative to face trials, recognize and manage challenges with persistence, resilience and grit, alone and in collaboration with others. See Division of Student Affairs, Strategic Plan.

**Multicultural Competencies**—refers to the development of mutual respect for cultural diversity and inclusion of members of local, national and global diverse populations as well as the
understanding of the connections and contributions of diverse populations. See RIT’s General Education Framework.

**Motivation**—comprises the drive to face trials, recognize and manage challenges with resilience and grit, alone and in collaboration with others. See Division of Student Affairs, Strategic Plan.

**Self-Awareness**—describes the conscious knowledge of a student’s maturing identity and the interrelationships between self, local and global communities, as well as the natural and physical world. See AACU Civic Engagement Value Rubric.

**Social Awareness**—refers to the character traits underlying cooperation, such as, empathy, friendliness, respect, trust, courtesy and openness to others and their opinions. See AACU, Character Traits Associated with the Five Dimension of Personal Responsibility.

**Teamwork**—comprises the contributions of individual team members to the task confronted by the team, including their manner of interacting with other team members, and the quantity and quality of contributions they make to team discussions and team problem solving. See AACU Teamwork Value Rubric.

**Technical Competence**—refers to people’s knowledge of different technologies, their capability to use the technology appropriately and effectively to accomplish various tasks, and their understanding that technologies are socially shaped as well as socially shaping. A technologically-literate person can think critically about technological issues and decisions about the uses of technology in context. Technological literacy can be further defined by three interrelated attributes of the technologically literate: knowledge of technology, its application, and its impact; the ways one thinks and acts regarding technology; and the capability to use different and appropriate technologies. See RIT’s Essential Academic Outcomes.
Reported Best Practices

Objective
Reflect on activities across the divisions of the University that constitute best practices and develop a list of examples that focus on staff and faculty interventions that are already up and running and generate T-competence.

College of Health Sciences & Technology

Medical Mission Trips
"In the past three years, a total of 15 RIT alumni and students have participated in Restore Haiti medical mission trips providing medical care to patients in Jacmel and Carrefour, Haiti, while also training local medical professionals in areas such as first aid, suturing, splinting, and dental treatment.
https://www.rit.edu/alumni/rit-physician-assistant-alumni-make-their-mark-haiti

RIT students help Rochester Regional patients stay healthy
"Patients who have chronic but manageable conditions are identified through care managers of Greater Rochester Independent Practice Association, which is owned in part by its member physicians and in part by RRH. The individuals are matched with RIT students who successfully complete a classroom course and a practicum. The students, who are called health coaches, do not provide any medical advice. Rather, they follow the treatment plan developed by the care manager. They remind the individual about taking medication and encourage the person to follow the healthy habits their doctor prescribed. Initially, the student coaches are supervised on their visits by a care manager. Even when they make visits on their own, the coaches report to the care team on the person’s progress and any obstacles."  

Biomedical Sciences Seminar
The first-year seminar for the Biomedical Sciences Program has been designed to build critical thinking, communication and collaborative skills--while supporting the transition from high school to college. It is a blended-learning course with even distribution of in-class meetings, independent work and on-line learning.

MEDS-105 Issues in Health, Science & Technology
This course will provide first-year students with an enhanced understanding of critical issues in global health, science and technology. It will explore cultural awareness and perspectives as well as the consequences of individual and group decisions on the health of communities.

**College of Imaging Arts & Sciences**

**Collaborative projects and processes**

Many programs in CIAS engage in collaborative projects and processes, where each participant is responsible for contributing towards success. These activities help students become better collaborators by helping them develop communication skills, flexibility, empathy, and increased awareness and ability to work with diverse partners. A few select examples include:

- T-Minus 151 -- This intensive, one-week project involves all students of the Industrial Design department from all levels of experience. Students engage with each other across year levels to work collaboratively to solve an industry-sponsored design problem.
- Freshman Imaging Project--All freshmen in the CIAS Film and Animation School’s Imaging Science and Motion Picture Science program engage in this year-long, cross-disciplinary imaging project where the students work collaboratively to solve an imaging problem. The project this year has to do with Virtual Cinematography.
- Glassblowing—This process is collaborative by nature, and requires participants to communicate clearly with other members of their team, anticipate needs, trust others, and perform well for the benefit of the group. These characteristics make glassblowing a popular choice for group team-building and communication experiences.

**Expression/Communication of Ideas**

Inherent in our BFA and MFA curricula is an emphasis on equipping students to effectively communicate their ideas through their chosen media and processes. This often involves articulating their research, ideation, execution, and presentation processes in either verbal or written formats as well.

**Critiquing**

Throughout CIAS, studio classes are structured around the critique as a way to review and assess creative processes and projects. Critiques involve detailed, methodical analyses of concepts and projects through formal verbal exchanges. They are most often conducted as group exercises during which the instructor leads discussion and facilitates active participation by students. The goal is for participants to develop the ability to think critically about creative output – their own as well as that of others, and to develop effective ways to communicate their constructive feedback. In the process of presenting and discussing their own projects in a critique session, students also learn to effectively present themselves and to formulate rationales for their own decisions.

**College of Liberal Arts**
Multi-Disciplinary/Departmental Poster Sessions
The Department of Psychology, the School of Communication, and the program in Public Policy come together at the end of each Spring Semester (sometimes at end of Fall, too) and hold a public Poster Session. Students have the posters they have created based on their capstone research pinned up for display, and the entire college (faculty and staff and fellow students) are invited to come and see the work and engage with students. This practice is collaborative at one level: that different departments work together to set it up. At another level, it engages students in a number of communication skills: creating the poster itself, and being ready with their “elevator pitch” for attendees. But it also engages critical thinking skills not just in the research, but also in being able to respond to questions from those visiting the event.

Multiple Ways of Evaluating Writing
Including the opportunity to revise: Many, if not most, of our courses use writing not only as a way of evaluating students, but as a process. Writing assignments range from discussion posts on myCourses, to reflective pieces written in class, to formal essays that go through at least one revision. This is a practice not limited to departments like English and Communication, but also in areas such as Political Science, Economics, and Criminal Justice. This broadly contributes to communication skills, and critical thinking (as part of the process of editing and revising one’s own work).

Division of Development & Alumni Relations
Student Crowdfunding Teams
Training, coaching/mentoring, oversight, evaluation process for all student crowdfunding teams over the duration of the project. Team leaders and team members receive training prior to project launch and are coached and mentored throughout the process. Using collaboration, critical thinking, project management and marketing/communication best practices, students work as a team to craft their marketing messages and communicate them electronically with the purpose of soliciting funding for a specific project or cause. At each phase of the project, students work with a full-time staff member who is responsible for ensuring students remain on task and focused while they work collaboratively to unify their message to achieve their fundraising goals. The coach/mentor works with students to course correct whenever necessary throughout each step of the process. At the conclusion of the project, students receive an informal assessment as to their level of success and an understanding of what went well and what perhaps could be refined further. The entire experience is related to teamwork, collaboration, problem-solving and communication in the workplace areas of future focus for the students as they transition to career.

Student Employees
Nearly 60 students work as Telefund callers each year, contacting alumni and parents for annual gifts to the university, sharing news of campus growth, and updating important contact information. Phone skills are of critical importance in any field, and these students receive training and ongoing mentoring from student supervisors and staff, alike. In addition,
persuasive conversation is a science and an art that is useful in all careers. Student callers are required to react quickly to a change in conversation and present a new path toward possible fundraising success. These students become skilled in their critical thinking and persuasion skills.

Similarly, students work on researching potential donors. Often starting with limited details, student researchers are tasked with following those leads, and the results of those leads, to build a comprehensive profile on an individual, corporation or foundation. Often complex, these profiles require strategic thinking and summarization skills in demand in countless fields. Finally, students are among the university’s most effective ambassadors and are, therefore, often tasked to connect with donors or potential donors. Student ambassadors are taught social engagement skills, like dining etiquette, thank-you note writing, and are coached through making dinner conversation in order to successfully represent the university to external audiences. These skills, once mastered, are lifelong assets for any alumnus.

Division of Diversity & Inclusion

diversity and inclusion has worked to integrate competency-based learning and education across its core student-facing programs and services in a number of ways:

· Pairing students with peer, faculty, staff and RIT community mentors in order to provide opportunities for development in areas such as interpersonal relationships, communication, collaboration and teamwork.

· Providing workshops that focus on social skills, navigating professional relationships and environments, interview skills and salary negotiation.

· Offering programs that will enhance and develop social, emotional, professional skills such as MOCHA (Men of Color, Honor, and Ambition), WOCHA (Women of Color, Honor, and Ambition), Undergraduate Research, LEAP Mentoring, I'm First Mentoring and D.I.V.A.S.

· Divisional Coaching Model that focuses on developing soft skills.

Division of Marketing & Communications

Student Employees

We hire, train and develop student employees to work in the fields of design, video production, web development, photography, written communication (to name a few fields). In the spring of 2017, we are rolling out a plan for all student employees who have been with us at least two semesters to receive a performance evaluation and potential merit increment. We will evaluate based on criteria including: Communication; Collaboration/Teamwork; Self Awareness; and job related competencies. We will assist the students in performance improvement where necessary.

Lunch and Learn Series
In the spring of 2017 we are implementing a lunch and learn series for student and staff employees. Topics will include ASL in the Workplace and Customer Service, among others. We will solicit ideas from both the staff and student employees, to deliver material that the students wouldn’t get in the classroom. These events will also give our student employees an opportunity to learn alongside our staff, which we are hoping will be a meaningful experience for them.

**Division of Student Affairs**

**Student Affairs Strategic Plan**

Central to the Division of Student Affair’s 2015-2020 strategic plan is the development of students’ skills for success. The Division recognizes that “students who engage in learning opportunities to develop as T-shaped professionals are more likely to be successful contributors in their future careers and communities.” Two objectives in the strategic plan relate to the development of T-competencies:

- 3.1: Establish and market recognized pathways for the development of professional competencies through experiential and learning opportunities.
- 3.2: Collaboration with University partners to provide students with methods for the demonstration, evaluation, and articulation of professional competencies.

Over the next several years, and as outlined in the 5-year vision statement for T-competencies, “the division will employ a consistent framework and language related to student competencies as well as offer high-impact opportunities for students to demonstrate, evaluate, and articulate their learning. Programs across the Division will be mapped, based on their competency-related learning objectives, so that students can “author” their journey through divisional programs and services. In addition to the work at the Divisional level, several units within Student Affairs are working to integrate T-competencies into their programs and services.

**Academic Support Center: YearOne Peer Advisors**

YearOne Peer Advisors will receive a robust training at the beginning of fall semester. After fall training, Peer Advisors will meet weekly within their team which is supervised by a Lead Peer Advisor. At the end of fall semester, Peer Advisors will receive a formal performance evaluation designed to measure performance related to several competencies: group facilitation, communication, and teamwork. The performance evaluation entails a written, cumulative review from the Peer Advisor’s instructor(s) and their Lead Peer Advisor. The performance review also entails a meeting with the Lead Peer Advisor and the Student Support Specialist who oversees the YearOne Peer Advisor component.

**Center for Leadership & Civic Engagement: Student Employees**

Training, supervision, and evaluation process for all student workers and leaders in the Center. The competencies evaluated are Communication, Collaboration, Critical Thinking, Self-Awareness & Social Awareness, and Project Management. These competencies are evaluated in
various ways in all three of our positions: Graduate Assistant, Undergraduate Student Worker, and Student Program Coordinator. Students receive training at the start of each semester and on-going as necessary. Throughout the semester, the students work with their supervisors to continue to grow in the identified competencies and at the end of the semester are evaluated. After the evaluation process, supervisors work with the students on continuous improvement.

**Center for Residence Life: Resident Assistant Training**
RAs are trained according to their length of time in the position (new versus returning). Our model is designed to have sessions where students learn about concepts or protocols then followed up by hands-on training and practical experience sessions where students role play scenarios and practice confrontation, difficult conversations, and other scenarios likely to come up in their role.

**Center for Student Conduct & Conflict Resolution: Adjudicated Students**
Students who move through the student conduct process will gain competencies around empathy, accountability, and critical thinking. Students will be evaluated during the conversation in the hearing when they are asked to reflect on the incident and decisions that occurred. They will have to articulate the development of these competencies in the conversation, and then will have to demonstrate that learning through assigned educational conditions and future appropriate behaviors. We also determine demonstration of these competencies if a student proactively seeks resources for the incident and preemptively apologizes to others.

**Counseling & Psychological Services: Group Therapy Program**
We believe we engage in best practices in our process of introducing students to the group therapy program at CaPS, delivering the service in ways that facilitate growth in various competencies, and evaluating progress. The competencies that will be evaluated are Self-Awareness, Emotion Regulation, Communication, and Working as a Team. These competencies will be evaluated in various ways -- through the completion of a standardized measure that assesses skills relevant to Emotion Regulation throughout participation in the group therapy program, through one-on-one conversations with group therapy facilitators, and through direct observation in the group therapy setting. Prior to participating in the group therapy program, students will meet one-on-one with a group therapy facilitator to discuss goals and develop a baseline understanding of where they stand on relevant competencies. Throughout the semester, students will work on developing the identified competencies in the group setting, and they will complete a standardized measure before every group meeting (groups meet weekly) to assess the status of growth in the Emotion Regulation competency. At the end of the group, students are asked to reflect on growth in the identified competencies and may choose to have additional one-on-one discussions to work toward additional growth.

**International Student Services: Peer Advisor Leaders (PALS)**
Training, supervision, and evaluation for undergraduate and graduate students hired to assist new international students during orientation. The competencies gained as a PAL include
Problem Solving, Communication Skills and Teamwork. PALs receive training at the end of the spring term prior to orientation as well as in the summer. Throughout orientation PALs work with a staff member in International Student Services as well as a “Lead PAL” to develop the competencies identified for the program. After orientation, there is a self-assessment tool administered to the PALs as well as a group.

Kate Gleason College of Engineering

Co-op Program
All KGCOE students are required to complete one year of cooperative education work experience. Along with deepening the students’ technical preparation for an engineering career, the co-op experience provides students with the opportunity to develop the communication and collaborative skills needed to be successful in the professional workplace. Students also develop an understanding of the role of the engineering profession within the broader context of the company or industry in which they work.

Multidisciplinary Senior Design
KGCOE students participate in the multidisciplinary senior design (MSD) program, which is a two-semester course sequence taken in the final year of study. The MSD experience is a studio course -- it adopts an approach to student interaction that is hands-on, instructor facilitated, and student-centered. Each design team is comprised of a mix of students from disciplines selected based on project needs. Teams are responsible for the technical aspects of the design, as well as project management and documentation. The experience requires students to collaborate with each other as well as the customer, project mentor, and advising faculty members. Students also have to provide numerous presentations and reports throughout the project in which they communicate technical project details to a diverse group of consumers.

RIT Croatia

Team Building
Teamwork activities are an integral part of our courses with the competition component of assignments often included in classroom (for example Business 2, Franchising in Hospitality Industry, Assessing and Improving Service Quality etc.). Once divided in teams, students are responsible to provide solutions that are a reflection of their team effort but at the same time, their work is evaluated by peers too. The bonding and sense of comradery among students while the projects are being developed and presented are truly remarkable. Additionally, the teamwork skill development goes beyond the “safe classroom learning environment”. Students are encouraged to participate in industry competitions (Henkel Innovation Challenge, L’Oreal Brand Storming Competition, Adria Hotel Forum Student Competition etc.) where they compete against teams from other schools/educational institutions. These competitions are primarily designed to connect students with industry but the true value of these competitions is that team efforts are tested outside of classroom environment. We can proudly say that RIT
Croatia students eagerly participate and on many occasions are among the competition winners. Another example of building team competences is the Service Learning Initiative (Year One course-community service). Service learning was introduced as part of a freshmen Year One course in which students are active participants of planning and implementing a community service initiative. Students are first introduced to the concept of service learning and complete a community needs assessment. Brainstorming sessions are held to come up with project ideas. The students select the top idea, form committees needed to implement the idea and are involved in the very activity chosen. In organizing and implementing a community service event students are provided with a work-integrated learning experience which requires employment of interpersonal skills (dealing with team members, community representatives, faculty and staff), effective collaboration toward a common goal, and problem-solving (problem formulation included) skills. In the process of selecting that goal they must come to an agreement on the needs in their social environment, a noteworthy part of personal development.

**Communication**

Numerous activities are structured to develop student’s communication skills throughout her/his education. Competitive small group debates in debate-intensive courses (mainly in Humanities) are designed around current issues and controversial topics (course-content related). These debates allow students to practice persuasive public speaking (oral presentation), development of arguments with ample supporting data (critical thinking skills too), active listening and interviewing skills, as well as small-group and interpersonal communication skills. Students prepare for the debate by writing discussion papers (individual submissions) and are placed in small groups based on their response to the debate question, while some are assigned the role of judges/facilitators. Each team prepares for a structured debate (presenting their case, rebuttal and cross-examination, closing statements), and each team member is invited to participate in oral presentation. Peer assessment activity (judges) also seems to have a positive effect in subsequent performance in debates. The debates are lively, and provide students with a forum for exchange of ideas on current developments, getting them involved and interested in the immediate and remote social contexts. We would also like to share an example where the Financial club students (at our Zagreb campus) worked in groups while trying to prove some strong statements in financial options validations. Students from all programs and concentrations (International Business, IT) had intense discussions that included different perspectives of the problems being discussed. Not only the verbal ability to win the argument mattered, rather the interdisciplinary angle built-into those activities was critical as well. Being able to influence colleagues within your field is important but the ability to reach out to people that come from other areas of careers and businesses is even more significant.

The communication competence is intensely promoted in each foreign language (languages include Spanish, French, German, Italian and Russian) delivered and taught at RIT Croatia, at all levels. Each year our students learning foreign languages are involved in the celebration of the European Day of Languages. It is a yearly event held to celebrate the linguistic diversity in Europe. This event is a great opportunity for all of our students to brush up on the language
skills in an informal environment and meet new people. Students prepare for the conversation tables run by native speakers and organized in small groups based on specific topics. Students are exposed to public speaking (oral presentation) and performing screen plays, reciting poetry and playing music in a language that is not their native language. We are always amazed by the passion and energy that our students show during the activities mentioned. Communicating can include many different forms and aspects which are not necessarily verbal - we can communicate via sign language, movie, painting or even --- food. Traditionally, every Spring the Foreign Language faculty members (Dubrovnik and Zagreb) engage students in preparing the food from different cuisines – The International Dinner. All students enrolled in foreign languages are included in the process; they develop the menu, purchase the ingredients, prepare and finally consume the food prepared for this event. This activity allows students to improve their vocabulary of the language they are currently learning but another important feature of these dinners is to help students better communicate and understand various aspects (past and present) of a certain culture and/or society. In the past 15 years, we had the pleasure to taste excellent French, German, Italian and Spanish dishes, but also some other exquisite dishes from all over the world. This event has thus become an important part of foreign language education at this institution because it helps students understand and enjoy more about different cultural aspects of the language that they study. Students also vote for the best dish and the most original dish, and the winners are awarded appropriately by the department. This has become one of their favorite social events not only for students learning foreign languages (who are in charge of the organization of the event), but also for other students as well.

**Critical Thinking**

Visual sociology/anthropology/philosophy projects are applied in a number of courses. Visual S-A-P projects are used to introduce a semiotic perspective on critical thinking, and allow for the students to gain a deeper insight on the meaning-making and meaningful communication. The projects come in two forms. In first type of projects students, through group discussion, conduct an analysis of visual materials/constructed sign systems (e.g. films/photography). In more complex visual S-A-P projects students themselves use photographs and videos to capture an assigned phenomenon (individual submissions). Then they analyze the contribution of each student in small group debates, prior to being presented with the authors' intended message, followed by the authors' presentation and further group discussion on the cultural dimensions and communication process. In the preceding years, the latter type of projects was also followed by a public exhibition or screening of films, in which attendees were also invited to contribute to the meaning-making/decoding. These kinds of public events are student-organized and lead, which provides students with experiential learning in event management and community engagement.

**Saunders College of Business**

**Business 1-2 Program**
Full year program for all freshmen which has them working in teams to develop their own business concept. Course adds components in leadership, teamwork, design thinking, written and verbal presentations.

**Communications and Ethics Courses**

All Saunders College students are required to take a course in business ethics and communications.

**Presentation and Teamwork**

Many Saunders College courses require group work and group presentations. Instructors reinforce best practices in both.

**Careers in Business**

This course consists of a series of workshops designed to introduce business students to the skills needed to be successful in job and coop searches and applications to graduate schools. Students will establish their career goals, create material (e.g., resume, cover letter), and acquire skills needed to achieve these goals.

**Personal Narratives from Members of the Best-Practice Sub-Committee**

**Besim Agusaj, RIT Croatia**

What does "T-shaped" mean to you?

T-shaped means that we are creating a framework in which all our activities are aligned and focused around the idea where our utmost responsibility is the development/preparation of RIT students for the work environment and globalized society of 21st century. The imperative is that we continue to work together and turn T-shape philosophy into our reality. And we need this approach today more than ever in the history of education.

How are you already/currently incorporating T-building development into your interactions with students?

Exams, assignments (supporting the fields that I cover) are all very important to what we do, yet my engagement with students does not stop at that, where grading and evaluating is the end of the class process – it goes well beyond the grade itself. We extensively, in and out of class, look for a wider context of why are we doing something, what is the impact of our actions, solutions, words.

What are some additional practices you'd like to develop or adapt?

(Optional/Additional)

Once the RIT T-shape model is finalized and articulated I will most definitely -- consciously -- include all aspects of it into my interactions with students. We, most probably, support a good
portion of the competencies students need, but the question is whether we are aware of the depth and breadth of those activities. So, the full review of the way how my current teaching practice fits into T-shape will be conducted.

How are you modeling a T-shaped developmental/learning model in your own life and continued learning?

In one of our faculty “Academic Planning Days” we were psychologically profiled, so that we could understand ourselves better -- my dominant profile was: LEARNER. This supported my attitude: the job of self-development is never done -- being open to new experiences, knowledge, ideas is something that is very important and should not stop at any point of an individual’s life.

Elizabeth Perry, College of Health Sciences & Technology

What does "T-shaped" mean to you?
T-shaped means being well-educated, analytical, flexible, creative, respectful, kind, open-minded, useful, effective, self-regulating and thoughtful.

How are you already/currently incorporating T-building development into your interactions with students?
Every one of my courses has self-reflection built into the interactions and pedagogy. In addition, they all have skill building activities in critical thinking, communication, inter-personal dynamics and collaboration, historical and multi-cultural perspective, goal setting, planning and self-assessment.

What are some additional practices you'd like to develop or adapt?
I would like to use more on-line and multi-media resources, and may begin to do more assessment and pedagogy research in my own classes. I was reluctant to do that because I thought it would "muddy" the teaching process, but my thinking has begun to change on that issue.

How are you modeling a T-shaped developmental/learning model in your own life and continued learning?

I talk to my students about my own outside development and continued growth and learning (in sports, reading, learning, volunteering, goal-setting, etc). I read pretty broadly and try to attend seminars/talks in areas outside of my degree. I would like to return to attending more cultural & community events, and to become involved in a broader range of not-for-profit/community service activities in Greater Rochester.
What does "T-shaped" mean to you?

Individuals that have depth and breadth. Not only a deep understanding of the area of focus (major) but a broader understanding of how it fits within the bigger picture. In the case of business, it is empathy we customers, and other disciplines, it is well developed communication skills, it is a knowledge of what is going on in the business environment.

How are you already/currently incorporating T-building development into your interactions with students?

From a counseling/advising standpoint I always use the T-shape model as a starting point. I constantly remind students that companies are looking for individuals that can work effectively across the organization. I led the design of our Business 1-2 program that brings all of these elements into a one year course sequence.

What are some additional practices you'd like to develop or adapt?

I would like to reinforce some of the messages by connecting with companies and have them come in to stress the importance of t-shaped. I would like to see us figure out how to work across the campus with an intro experience like Bus 1-2.
How are you modeling a T-shaped developmental/learning model in your own life and continued learning?

I like to maintain an openness to learning in many different areas. I am very aware of environmental factors impacting the business world.
The original design for the RIT T-shape model was the result of synthesis of the independent work and subsequent group discussion of four sub-teams of the Tiger Team. Consistently used language was evident and became the prominent element to be communicated in the original conceptual design. At the time, less importance was placed on the specific placement of the nested competencies within the model. Feedback revealed a related variance in opinion and called for clarity, though the evident challenge was articulating the nested competencies embedded in the levels of the model with appropriate alignment to the major competencies.

A simplified version of the model was created and there is a clear opportunity, as part of the alignment exercise, to revisit the illustrative visualizations used for a variety of audiences.
Model Simplified

Self-Awareness
Reflection/Assessment

Communication

Collaboration

Social-Awareness
Empathy/Interpersonal Sensitivity

Critical Thinking

Motivation
Growth Mindset/Resilience

T-Shaped Professionalism
Global Interconnectedness

Integrative Thinking

Teamwork
Appendix D
Listening Tour Function and Program Specific Opportunities and Recommendations

Enrollment Management and Career Services
Consultant -- Manny Contomanolis, Sr Associate Vice President & Director of Career Services and Cooperative Education

Like nearly all organizations at RIT, the division employs a significant number RIT work study students, co-ops, and graduate assistants – more than 250 over the course of a typical year – in a wide variety of roles. Many of those students receive specific training appropriate to their roles, all receive careful supervision, and there are frequent opportunities individually and collectively to receive guidance and direction relative to the role of their skill development and experiences in the division to their academic coursework and professional career plans.

The Offices of Undergraduate Admissions and Graduate and Part-time Enrollment play a significant role with prospective students and their parents, through group programs and individual admissions appointments, in relating student skills and interests to specific RIT academic programs and career pathways. This is often an essential step in college attendance and major choice decisions.

Career Services and Cooperative Education of course plays the most significant role in terms of student professional skill development especially as it relates to career choice, the job search, and on the job success. In fact, many career services offices incorporate “professional development” in the office name. Through a wide array of training programs, workshops, and panel discussions, on-line content, and, most importantly, individualized coaching and advising students are engaged in the process of self-reflection concerning their skill and competency development as it relates to their co-op, internship, or full-time job search as well as graduate school attendance. Specialized career exploration programming and testing often relates potential career paths to student skills and interests setting up an on-going dialogue concerning how skills can be mastered and competencies developed in support of those career goals and aspiration. Career Services Coordinators are in the excellent position of interacting with employers relative to their specific hiring needs, most often in terms of student experiences, skills, and competencies and relating those specific requirements to the students they work with. The co-op evaluation process is managed by Career Services and staff there supplement the grading process in the academic department by reviewing student and employer co-op work reports as part of the coaching and advising process. The Student Employment Office reports to Career Services providing the opportunity to leverage those on campus opportunities, for example, in support of broader, longer-term career goals.

Student Employment
Consultants - Rachel Nemeth, Director Student Employment Office and Amanda Henry, Assistant Director Student Employment Office
**Recommendation**
All students employed in on-campus jobs will receive at least one performance appraisal, which will serve as an occasion to debrief on performance according to job duties and professional skills development, as well as identify opportunities to further cultivate selected skills.

**Rationale**
On-campus employment is an opportunity for students to develop a broad range of competencies, including those identified as transversal skills. Students work in many different roles on campus. Some offer experience directly related to academic disciplines but all can serve to embolden professionalism. Based on an analysis of campus employment data provided by The Office of Institutional Research, about 65% of undergraduate students hold at least one paid student staff position on campus during their career at RIT.

**Current State**
Currently, there is a wide range of supervision and appraisal models in place. Information gathered from the Student Employment Office indicates the following as current state:

- It is recommended that student staff receive evaluations but it is left to each employer to manage any process around evaluations. The number of student employees and context in which they work varies across functional domains and RIT offices.
- A Student Employee Appraisal Form is available on the SEO website but the use of this is not centrally managed and the Student Employment Office lacks data to suggest how it is being utilized across campus. [https://www.rit.edu/emcs/seo/assets/docs/student-appraisal-form.pdf](https://www.rit.edu/emcs/seo/assets/docs/student-appraisal-form.pdf)
- A supervisor training workshop (Hiring, Supervising, and Retaining Student Employees) is offered through the Center for Professional Development.

**Resource Considerations**
1. Standardized appraisal template that incorporates the Professional Competencies identified as the RIT profile (Communication, Collaboration, and Critical Thinking).
2. Training and resources for staff and faculty in the use of the template, performance appraisal skills, and empowering students to select relevant next steps in cultivating selected skills.
3. A variety of supervisory models that will accommodate a genuine feedback process effective for the broad range of student staff team sizes and contexts. Complexities arise based on size of student staff reporting to individual supervisors and context of the work being completed.

**Center for Residence Life**

**Current T-shaped Efforts**
The Resident Advisor Experience is an exceptional vehicle to help students acquire skills and competencies to complement and enhance their development in their academic discipline.

- RA’s receive supervision from professional staff that provide frequent 1 on 1 meetings for feedback, development and reflection.
● RAs participate in a comprehensive training program twice per year, these students also have weekly staff meetings in their building staff groups.
● In alignment with our Residential Education model RAs work together with their supervisors to plan both proactive and reactive initiatives in support of their shared residential experience with their residents.
● RAs receive 2 evaluations annually (1 fall, 1 spring) that include a self-reflection that prompts students to assess their experiences and what strengths and areas of improvement they have demonstrated during the semester. This self-reflection is reviewed with each student along with their supervisor’s assessment of their performance and demonstrated skills. In the spring the supervisors again review their feedback alongside the student’s self-reflection. The supervisors are able to leverage the fall assessments to help structure a conversation with the student around areas of growth as well as gaps that students will need to develop to be successful in the RA position or future professional opportunities.
● All RAs participate in our staff training series that includes 8 meetings in small cohort groups in their first semester in the role. These sessions provide an opportunity to explore the training content deeper and more broadly.
● The RA Application process requires the submission of a resume and cover letter that must address RA specific prompts.
● All RA candidates who are not offered a position are encouraged to meet with one of our staff members to receive feedback about their performance and resume & cover letter submission. They are also referred to other leadership opportunities or programs/initiatives that can help fill their skill gaps or strengthen items we would have liked to see developed further.
● RAs who’d like to return to the position must answer reflection questions in order to be rehired, RAs interested in leadership roles such as SR. RAs and Global Village RAs also must reflect on current skills and the opportunities for additional skill development in an increased role.

Opportunities and/or Areas for Further Development
● The RA Application could be more directly connected to and aligned with other leadership opportunities for more streamlined and consistent experience for students as well as effective referral of students to other leadership and developmental opportunities.
● RA Training could be more intentionally aligned and organized with the language of the T-shaped initiative including objectives around the development of students in the areas of communication, collaboration and critical thinking.
● The staff training series could benefit from some additional support from other areas in student affairs or an academic area to provide a robust credit bearing experience. This effort could also be directly organized around T-shaped language and competencies.
● The timing of the staff training series could be reviewed along with scope to potentially reimagine this as a prerequisite course for student leadership and to make this a part of the selection process for the RA role and other leadership opportunities if the resource investment was practical.
• Additional training of other student leaders/employees could be integrated into fall & winter training. There are sessions that would be valuable in regards to compliance as well as student competencies that could be offered across the division to a variety of students (RAs, OAs, MSO Executive boards, SG, SIH executive boards, club leaders) that are currently offered in standalone formats. The traditional RA/OA training time could be leveraged for a 1 day shared experience just prior to move in.

• Explore opportunities for more high achieving leaders to participate as RAs and in other capacities, it is currently not possible for an RA to also be an OA. There may be some students in unique RA roles (SR. RAs, Global Village RAs) to participate in other leadership opportunities that help develop skills and competencies.

**New Student Orientation**

**Current T-shaped Efforts**

New Student Orientation provides opportunities for students to build upon their leadership skills and potential. Students are hired through a selective process that looks to see their background and skill sets in regard to communication, customer service, and opportunities that have guided their critical thinking skills. There are various areas in which the T-shaped focus comes into play:

• Training (of current student leaders and how this is transferrable to resumes/future positions)
• Weekly 1:1 meetings for check-in and feedback between professional staff and the Orientation Supervisors, and Student Orientation Coordinators
• Weekly central staff department meetings that occur with all positions, including professional staff
• Facilitator training – occurs for the August program, in which students are given extensive training on inclusive language, facilitating difficult conversations, mediation, and peer to peer conversations
• Student leaders are given a leadership book each spring semester that is read alongside professional staff and discussed weekly in central staff meetings
• Peer to peer supervision and evaluation – students provide oversight pending their positions, they evaluate themselves and each other yearly, and provide recommendations for future hiring of exceptional students that exhibited high leadership in the summer program
• Customer service skills that are worked with to help facilitate conversations with parents, families, staff, and faculty while on campus
• Students are all evaluated by professional staff as well as personal reflection and conversations then occur
• Students work with professional staff to create learning and program outcomes per area and program that are built and woven into the Orientation structure. These outcomes are worked on in advance and capture many levels of the T-shaped structure

**Opportunities and/or Areas for Further Development**

• Joint timeline with Residence Life and other high-achieving leadership positions
● A common application with these departments that would allow students to express their interest collectively (Orientation, Residence Life, YearOne, etc.)

● More integration between campus partners and the Orientation training program – including higher communication with Residence Life so that Orientation Leaders and Resident Advisors are receiving similar messages, if not joint in some circumstances, to assist with closer working relationships while new students and families are arriving to campus

● Increasing the way in which Orientation staff is integrated into Campus Life, and producing larger T-shaped efforts for all students in the department

● Increased learning and programmatic outcomes for both summer and the mid-year January Orientation that will help capture the language of a T-shaped professional

● Evaluation forms, both self and peer, amended to include comprehensive T-shaped language

● Working with programmatic efforts and campus partners to make sure the T-shaped language is encompassed in all programming. This could include collaborating alongside academic partners to ensure that the T-shaped is focused on during the Thursday Academic Day that generally occurs in the summer (perhaps a Career Fair to follow on that day)

● Drive-In Resume workshops, collaborated with Career Services, to help student leaders prepare to submit their resume and cover letter prior to applying for positions, and after the summer program to help translate T-shaped skills to their resume

● Working with the Mission Statement of the Orientation program to help include information and language around the ways in which we build student leaders

Additional Student Affairs Opportunities for Further Development

● Professional staff training and or/development (“train the trainer” concept) – identify key stakeholders from certain function areas that will commit to this and have the skills necessary to contribute on our campus.
  ○ National Conferences or Certificate programs?
  ○ Webinars or?

● National or Regional Student Leadership Experiences that are using the T-shape concept

● A specific point person/staff member that is assigned to the initiative as part of their job function. This would allow for continuity and consistency from all areas.

● A leadership course that could be offered both spring/fall semesters.

● RIT specific recognition for efforts and gains made in the area – a Certificate program with an EOY program celebrating the work?
YearOne Course

T-SHAPED COMPETENCIES IN YEARONE “DAVINCI” PILOT

In the fall of 2016 term, the Academic Support Center under the direction of the Associate Vice President for Student Affairs, Heath Boice-Pardee, conducted a pilot section of YearOne surrounding T-shaped competencies titled the “daVinci” section. In addition to the traditional YearOne learning outcomes, another was added, “Students will be able to describe “T-shaped” competencies including how to work in teams, speaking/presentation skills, critical thinking, interpersonal skills and how to describe your experiences in and outside the classroom.” The course was offered in partnership with The Eugene H. Fram Chair in Applied Critical Thinking, Dr. Jennifer Schneider who co-taught the course with Dr. Boice-Pardee.

Topically Oriented

In order to deliver class content, the instructors approached the daVinci section of YearOne differently than the traditional format focusing on mostly on transition issues and RIT resources. Instead, all of the traditional content and more was presented through presentation of a course-long topic. In this section, the topic was based on Dr. Schneider’s area of expertise, “Disaster Management.” Topics covered included:

· Introduction to disasters—how we can learn to thrive despite big challenges.

· OODA Looping: Utilizing the decision cycle of observe, orient, decide, and act to make tactical decisions.

· daVinci and T-shaped Competencies.

· Strategy and decision-making: Utilizing the role-playing board came, “Pandemic.”

· How does resilience and grit relate to planning for the worst?

Final Presentation

Each student was required to participate in a team project. The topic was: “When Disaster Strikes. Select a disaster and outline the steps necessary for approaching a response. What factors must you consider? What are your sources of information and how do you assess their
credibility? What are the risks involved and how will you mitigate them? How does disaster resilience relate? What T-shaped competencies assist in your management plan?"

**Outcomes**

The instructors were genuinely impressed with the level of expression from the 25 students in the course. Their grasp of content relating to T-shaped competencies was exceptional. Prior to the start of the course students were given a “pre-test” and then a “post-test” at the end asking them to respond to the statements:

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know what “T-shaped” competencies are.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>9% yes</td>
<td>95% yes</td>
</tr>
<tr>
<td>2. I can explain “T-shaped” competencies to others.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>4% yes</td>
<td>96% yes</td>
</tr>
</tbody>
</table>

Before the course material was presented, 9% of the students stated that they knew what T-shaped competencies are and only 4% indicated that they could explain T-shaped competencies to others. On the final day of the course, 95% of the students indicated that they knew what T-shaped competencies are and 96% noted that they could explain them to others.

**Implications**

While limited to one section, there are several implications that the “daVinci” YearOne pilot presents for curriculum, teaching, learning, and advancement of RIT’s goals.

Since RIT endeavors to develop T-shaped graduates, introducing students to T-shaped concepts early in their academic careers through the YearOne course seems foundational. If this is to be scaled, the YearOne curriculum will need to be revised. Two related aspects of the “daVinci” pilot also have implications to the future track of YearOne: teaching partnerships with faculty and staff, as well as topically-gearred sections. Both of these elements seemed to add a depth to the course to enhance learning.
Appendix E
Messaging T-shape at Virginia Tech

VT-shaped Student

Recently, leaders in higher education, industry, government, foundations, and professional associations have encouraged the development of T-shaped students and professionals. A T-shaped individual has deep knowledge of a discipline and/or way of thinking, often seen in higher education as a student's major. This is complemented by breadth in a variety of disciplines and ways of thinking coupled with crosscutting skills such as communication, project management, and critical thinking.

Virginia Tech looks to expand this model, creating "VT-shaped students." The "V" enriches the model bringing in technological literacy, informal communal learning, and guided experiential learning. The "V" is achieved through a variety of intentional activities at Virginia Tech, including the curriculum itself through things like undergraduate research, a robust general education curriculum that allows for opportunities like internships and education abroad, and First Year Experiences courses to set students up for success from the beginning of their time here at Virginia Tech.

“We want to prepare students who can tackle the complex global problems and opportunities of the future,” said President Tim Sands. “To do that, students need to be adaptable, resilient, and culturally competent, seeing the world through the lens of empathy and our university's motto, Ut Prosim (That I May Serve)."
VT-shaped people prioritize purpose-driven engagement with a combination of disciplinary depth and interdisciplinary capacities.

Virginia Tech is set apart from other land-grant universities with not only its historical emphasis on outreach and application of knowledge, but also its commitment to communities and service to society. An education from Virginia Tech goes beyond the “T” shape by incorporating elements of Ut Prosim and the land-grant mission to create a “VT-shaped individual.”

The challenges of the future require the capacity to work in interdisciplinary teams, engage in critical and creative thinking, collaborate with diverse people, communicate effectively, and conduct oneself with a deep sense of ethics. Students at all levels will be mentored to develop a knowledge base and skills while they are immersed in a culture that unifies multiple disciplines in a field of study within the context of these crucial values.

Emerging from this work is the notion of a “purpose-driven and person-centered” curricular design. A Virginia Tech education will engage the whole person and through inclusive connections contribute to the value of each person and to the groups in which they participate. Beyond Boundaries envisions significant changes in Virginia Tech curricula to reflect the belief that students at both the graduate and undergraduate levels will want to shape their own course of study. A flexible approach enables students and faculty to be purpose-driven in curricular design and research, thus addressing the complex needs of communities and society at large as they arise.

Virginia Tech will place graduates on a path toward becoming global citizens. Inclusive communities—which exhibit a lifelong commitment to understanding, empathizing with, and learning from diverse collaborators—are central to this trajectory. Curricula and organizational structures or incentives must allow space for culturally-enriching global experiences, faculty engagements, and institutional partnerships.

We will challenge existing financial and educational approaches in ways that will affect our real costs. Virginia Tech students will be able to find new, multiple, and variable sources of support to fund their education, including organizations that fund tuition in return for service before or after graduation.
Appendix F
Investigations of Tools

The Tiger Team is recommending a multipronged approach to managing a set of investigations on the utility of tools that may contribute to a broad range of services that are essential to students across multiple sectors at RIT. This project management approach has three identified prongs which will leverage different tools to explore multiple ways to achieve our outcomes.

Investigation Program Management
- Investigation Program Manager(s) - A person, or set of people, should be identified to have oversight for the investigation program and would be connected to the standing committee overseeing the T-shape programming and assessment activities, with responsibility for address the overarching matter of what is gained from the investigations collectively.
- Project Coordinators - Each project within the investigations should have a structured approach for achieving the outcomes and a coordinator responsible for facilitation and reporting.

Investigation A – Pilot of New Technology Pursuits

Investigation A should include formal pilots of new technology with identified test markets, outcomes, and measures of success.

The T-shape Tiger Team is recommending segmented investigations of samples of the RIT population interacting with multiple products that would assist in recording and displaying the T-shape student developing career arc. The pilots will be grounded in their value added to the issues of documentation and demonstration within the outlook of the T-shape as well as identified actionable items to test for within each investigation, and will form the basis of decisions on widely promoting and extending products enterprise-wide.

The pilots should provide hands-on experience to help to determine:
1. the impact of the solution on the following elements ultimately leading to students’ ability to articulate their discipline specific and broad-based career readiness.
   a) Navigating the experience and developing competencies
   b) Preparing, documenting, and curating representations of competencies and experiences
   c) Sharing and articulating
2. the appropriate user base - whether the software is suitable for use by the diversity of disciplines or subsection of students at RIT
3. configuration/branding standards and opportunities
4. the extent to which the solution provides actionable records management and administrative access to outcomes data
5. the recommended and/or allowable timeframe in which students can access and would make use of the solution, including portability and longevity throughout the development of the career arc
6. user and administrator adoption rate
7. cost of implementing the level identified appropriate for the target user base
8. potential opportunities to evolve and expand on use beyond the pilot
9. any additional strategic value of the services provided by the solution

Because the pilots include implementation of a new technology, the Coordinator should involve the appropriate teams as identified by ITS, potentially including Information Security Office, Project Management Office, and Applications Development.

Each pilot should identify the scope of the pilot (participant group and timeframe), determine the resources necessary to complete the pilot, develop an implementation or monitoring plan, work with ITS to install or modify any necessary software and data interfaces, set up a monitoring system to log use cases, problems and resolutions, identify and provide for any training needs of end users and administrators, gather relevant feedback and outcomes data, and prepare a summary report.

Identified Tools
1. Pragya Systems
   https://site.pragyasystems.com/
   Pragya is a web application that allows students to develop and navigate a learning pathway for their educational career. This solution uses machine learning to automate recommendations, in addition to student driven direction-finding in the system. Using the system, students can explore career options, employer tracks and alumni pathways, while finding RIT content related to those pathways (courses, content, contacts, clubs, internships, co-ops). Additional student user features include personalizable learning streams and social/networking features. Administrative opportunities in this system include use within academic advising and career counseling, as well as analytics and insights (learning and engagement outcomes).

   The proposed pilot group, the School of Individualized Study, is a diverse and innovative program reflecting a range of talents, interests, and career trajectories making this an ideal test market.

2. Portfolium
   https://portfolium.com/
   Portfolium is an ePortfolio solution that serves the entire student lifecycle beyond graduation and into the workforce. The solution allows students to curate, showcase, and share accomplishments and work completed inside and outside the classroom integrating with tools students already use, such as Prezi, YouTube, and Google Docs. An incorporated social network allows students to build connections and search for competency developing experiences within other profiles, while insights allow the administration access to learning
outcomes and competency alignment data. Portfolium promises a high degree of portability in that students can access and distribute portions or the entirety of their learning profile in multiple ways and continue to use Portfolium as a free product beyond graduation.

The proposed pilot group, the Department of Packaging Science, is a multifaceted major with diverse students making this an ideal test market.

Investigation B – Structured Investigation of Existing Activities

Investigation B should include methodical proposals to explore the viability of further leveraging currently employed tools.

Identified Tools

1. Behance

https://www.behance.net/
Behance, an Adobe product, is an “online platform to showcase & discover creative work. The creative world updates their work in one place to broadcast it widely and efficiently. Companies explore the work and access talent on a global scale.”
https://help.behance.net/hc/en-us/articles/204483894-What-is-Behance-

RIT currently has a subscription, managed by Career Services and Cooperative Education, for a gallery in which the work of RIT community members is displayed. While students are using a variety of portfolio tools across and within disciplines, the College of Imaging Arts and Sciences is promoting use of Behance to gather student work in the RIT gallery.

This investigation should identify the reach and use of Behance across RIT and explore what we can learn from departments who have utilized Behance in an intentional and comprehensive way.


This investigation should explore the impacts of using a guided approach in advising sessions. There are a variety of ways formally articulated and informally engaged, in which advisors engage students in charting and reflecting on their path and roles at RIT. The School of Individualized Study incorporates a standardized Career Prep Check List into Advising Practices.

In SOIS, each advisor has developed their own way to incorporate the Career Prep Check List it into their advising practices with students interested in changing into the SOIS, as well as current SOIS students. For students interested in coming to SOIS, some of the advisors are simply mentioning the career checklist as a tool that our students utilize, while others
have been giving it out to students. Regardless if the student will be changing into SOIS, the advisors are having the career readiness conversation with students early on. When students are accepted into SOIS, the career prep checklist is sent to them along with their approved plan of study, so they are receiving this information, right as they enter our program. For current students in SOIS, a few of the advisors are using the check list at the beginning of each term to help students set up goals or a to-do list for the semester. One advisor said she gives it out as out as homework, asking her students to bring it back for their next appointment. Another advisor has students utilize the check list on their own; every now and then she may bring it up in her advising meetings with the student but does not go through the worksheet with them.

The Career Prep Check List is also used within a course. Many of the assignments for this class can be found on the checklist itself; For instance, creating a LinkedIn profile, developing an elevator speech, creating a reference list, etc. The check list is given out early in the term, so students can see what skills they have and what skills are still needed before they graduate.

It is recommended that this investigation explores incorporation of the T-shape competencies into the checklist, the impact of using this tool, other checklists formally utilized within academic programs, and the opportunities for broad promotion of a Career Prep Checklist at RIT (does it make sense to promote use of a common checklist or subset of items to be standardized across the variety of tools used?).

Investigation C – Broad Promotion of LinkedIn Profile Development
Investigation C should be a systematic exploration of the opportunities to support students in valuing and developing a compelling and far reaching online career profile.

Identified Tool
LinkedIn is widely known as the largest online professional network; a powerful platform for recruiters, job seekers and businesses. In a 2014 presentation of the company ten year vision (https://www.youtube.com/watch?v=jm15S1QmOTw&feature=youtu.be), CEO Jeff Weiner identified the following as the strategic direction for LinkedIn: to be the professional profile of record online, the primary place where people create, update and access those records; to connect millions of students, professionals, and knowledge workers across the globe; and to be the definitive professional publishing platform.

There are plentiful examples of accessible tutorials and guides demonstrating how to build, and promoting the value of, a LinkedIn profile and compelling content populated by the collection of a college student’s experiences, and a variety of programs and services across campus touch on this in some measure of depth with RIT students.

This investigation should research and document the opportunities across the student lifecycle to embed the preparation of a profile and continued building of use of LinkedIn services such that students are introduced early in their educational career and connected often with
opportunities to build on and leverage this tool. For example, some campus experiences (e.g. the Student Information Technology Office) promote the importance of documenting career preparation experience in LinkedIn by setting the expectation that student employees develop career profiles.

The ultimate goal of this investigation is to identify how a variety of areas across campus are engaging and promoting the use of LinkedIn, isolate opportunities to educate students early and in ongoing ways about the value of developing a far reaching online professional presence, and provision students with the tools and skills to use LinkedIn successfully. Given the wealth of already developed and accessible resources, this investigation is likely more about identifying how to develop and direct students to a central location for valid training materials, and identifying and promoting opportunities to intentionally embed LinkedIn education and profile development in existing programming.
Appendix G
T-Shape Associated Bibliography


Bolded = recommended articles for teaching T-shape skills & best practices based on research


