

# Quality Enhancement Plan Proposal

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## Quality Enhancement Plan (QEP) Overview

The QEP topic should be an identified priority to enhance UT Tyler student learning and success. Essential components of the topic selection should include the following:

- a topic identified through ongoing, comprehensive planning and evaluation processes;
- a broad-based support of institutional constituencies;
- a focus on improving specific student learning outcomes and/or student success;
- a commitment to resources, and
- a plan to assess achievement.

## Proposed Topic: Real-World Problem Solving

The Association of American Colleges and Universities (AAC&U) defines problem solving as "the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal." Real-world problem solving involves applying knowledge and experience gained throughout a student's educational experience to solving problems in real-world settings, such as career, community, and personal life. Furthermore, problem solving encompasses a wide range of disciplines and activities.

## Rationale for the Topic

#### Mission Statement

UT Tyler is committed to student success by providing a uniquely balanced student experience in an environment of innovative teaching and research shaped to serve and advance the educational, economic, technological, and public interests of East Texas and beyond.

#### Vision Statement

We aspire to be the primary educational and economic driver of East Texas.

### **UT Tyler Strategic Plan**

The QEP will support each of the four pillars of success through relevant curricular and co-curricular experiences selected by each participating academic program.

	Pillar	Strategic Goal
Pillar I	Student Success	Catalyze student retention, graduation and career progression
Pillar II	Student Engagement	To stimulate the growth of traditions and programming that engages students in unique and compelling ways
Pillar III	Research and Scholarship	To endorse discovery that expands knowledge and transforms East Texas
Pillar IV	Community Engagement	To successfully deploy the university's intellectual capital to address regional needs

## **Broad-based Support of Institutional Constituencies**

## **QEP Topic Selection Survey**

The QEP Topic Survey Subcommittee met during the summer of 2017 to develop the first QEP Topic Survey. The original survey topic options were based on the 2016 NSSE UT Tyler Snapshot, the 2016 NSSE UT Tyler Engagement Indicators report, the 2016 NSSE UT Tyler Campus Environment Report, the 2016 UT Tyler Graduation Exit Survey, the 2016 Patriot ReConnect Survey for Non-returning Students, and the Proposed UT Tyler Strategic Plan pillars.

UT Tyler faculty, students and staff were invited to take the survey as well UT Tyler Alumni Regional Council and community members from each college Advisory Board. Survey takers were asked to select their top five options from among 27 topic themes or to identify topic options not listed in an open response item. The leading overall topics among all survey responders included Work-Related Knowledge and Skills, Internships, Career Planning/Being Career Minded, and Solving Complex Real-World Problems. Additionally, Solving Complex Real-World Problems was the highest rated topic among faculty.



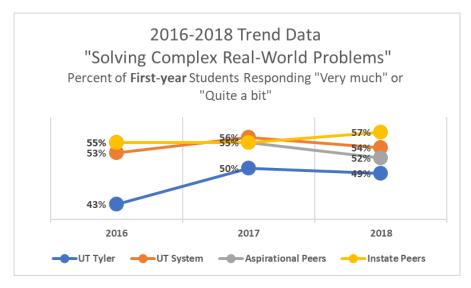
**QEP Topic Selection Committee** 

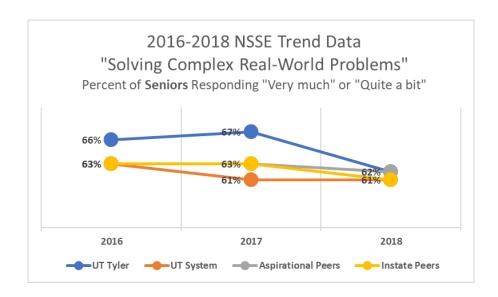


## **Supporting Rationale**

## National Survey of Student Engagement (NSSE)

The NSSE captures student perceptions regarding how their experience contributes to their knowledge, skills, and personal development in ten areas. NSSE trend data for the past four years shows "solving complex real-world problems" in the bottom consistently for first-year and senior students. Comparison data to UT System, Aspirational Peers, and Instate Peers regarding student reported experience with solving complex real-world problems places UT Tyler below all for first-year, and slightly above for seniors. However, 2018 data shows a 5% decline in perception ratings. See Trend Data reports below and NSSE Snapshots in Appendix A.





## National Association of Colleges and Employers (NACE)

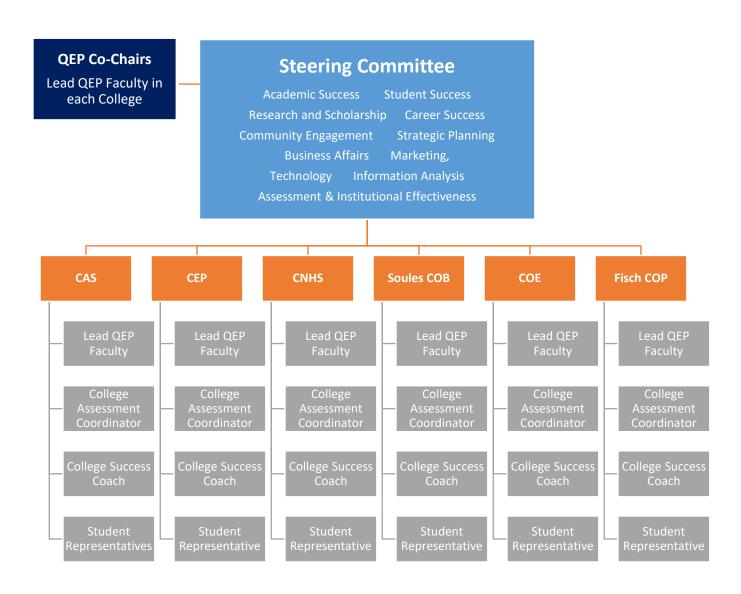
Data from employers is consistent with the proposed topic of Rea For the past three years, problem solving has been in the top five of the Job Outlook survey conducted by NACE. Problem solving was at the top of the list for the 2018 Job Outlook Survey.

NACE JOB OUTLOOK 2018			
ATTRIBUTES EMPLOYERS SEEK ON			
ATTRIBUTE % OF RESPONDENTS			
Problem-solving skills 82.9%			
Ability to work in a team	82.9%		
Communication skills (written) 80.3%			
Leadership	72.6%		
Strong work ethic 68.4%			

NACE JOB OUTLOOK 2017				
ATTRIBUTES EMPLOYERS SEEK ON CANDIDATE RESUME				
ATTRIBUTE % OF RESPONDENTS				
Ability to work in a team 78.0%				
Problem-solving skills 77.3%				
Communication skills (written) 75.0%				
Strong work ethic 72.0%				
Communication skills (verbal)	70.5%			

NACE JOB OUTLOOK 2016				
ATTRIBUTES EMPLOYERS SEEK ON CANDIDATE RESUME				
ATTRIBUTE % OF RESPONDENTS				
Leadership 80.1%				
Ability to work in a team 78.9%				
Communication skills (written) 70.2%				
Problem-solving skills 70.2%				
Communication skills (verbal) 68.9%				

## **QEP Steering Committee**



QEP Steering Committee Subcommittees				
Theory and Curriculum				
QEP Co-Curricular Programming				
QEP Marketing				
QEP Budget				
QEP Assessment				
QEP Co-Curricular Programming				

## Timeline

QEP Steering Committee Timeline (Tentative)			
Spring 2019			
Fall 2019			
Spring 2020			
Fall 2020			
Dec 2020	Submit final QEP to President		
Feb 2021	Submit QEP to SACSCOC		
Apr 2021	QEP Site Visit		
Summer 2021	Submit requested QEP changes		
Fall 2021	Launch QEP		
Fall 2021-Fall 2025	Annual QEP Reports		

## Appendix A NSSE Snapshots 2015-2018

## NSSE 2015 Snapshot

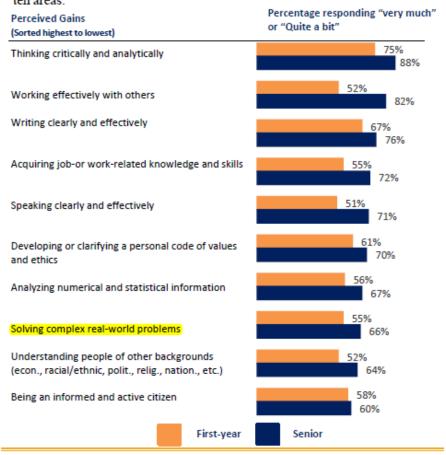
The University of Texas at Tyler

## **How Students Assess Their Experience**

Students' perceptions of their cognitive and affective development, as well as their overall satisfaction with the institution, provide useful evidence of their educational experiences. For more details, see your Frequencies and Statistical Comparisons report.

#### Perceived Gains

Students reported how much their experience at your institution contributed to their knowledge, skills, and personal development in



#### Administration Details

	Count	Resp.	Female	Full-
		Rate		Time
First-year	66	13%	68%	94%
Senior	156	11%	68%	72%

## NSSE 2016 Snapshot

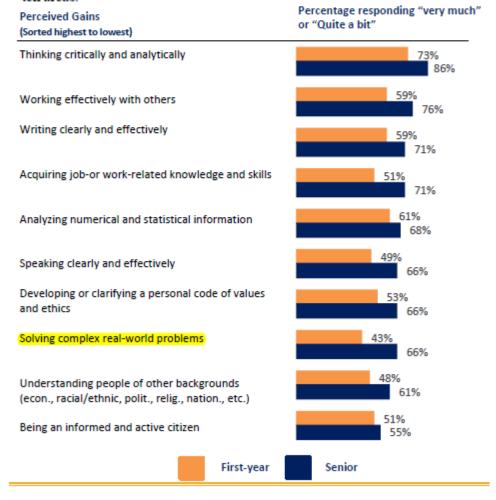
## The University of Texas at Tyler

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#### Perceived Gains

Students reported how much their experience at your institution contributed to their knowledge, skills, and personal development in ten areas.



#### Administration Details

	Count	Resp. Rate	Female	Full- Time
First-year	147	25%	66%	98%
Senior	453	29%	69%	72%

## **NSSE 2017 Snapshot**

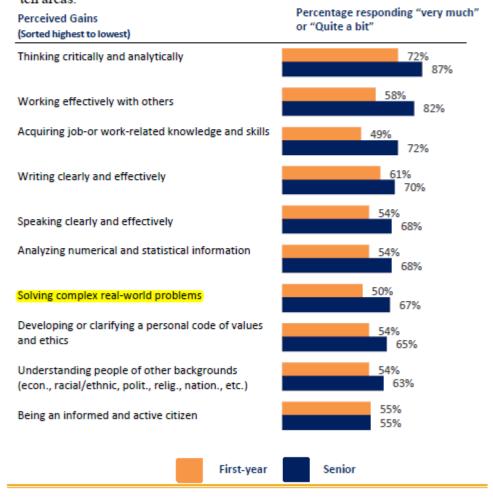
## The University of Texas at Tyler

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Students' perceptions of their cognitive and affective development, as well as their overall satisfaction with the institution, provide useful evidence of their educational experiences. For more details, see your Frequencies and Statistical Comparisons report.

#### Perceived Gains

Students reported how much their experience at your institution contributed to their knowledge, skills, and personal development in ten areas.



#### **Administration Details**

	Count	Resp.	Female	Full-
		Rate		Time
First-year	134	24%	59%	95%
Senior	346	19%	68%	71%

## NSSE 2018 Snapshot

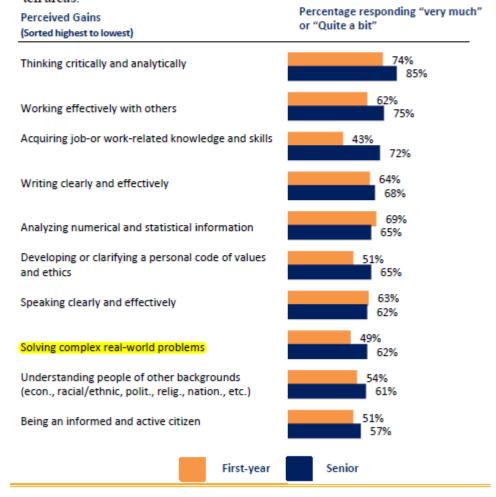
## The University of Texas at Tyler

## **How Students Assess Their Experience**

Students' perceptions of their cognitive and affective development, as well as their overall satisfaction with the institution, provide useful evidence of their educational experiences. For more details, see your Frequencies and Statistical Comparisons report.

#### Perceived Gains

Students reported how much their experience at your institution contributed to their knowledge, skills, and personal development in ten areas.



#### Administration Details

	Count	Resp.	Female	Full-
		Rate		Time
First-year	130	29%	71%	98%
Senior	356	20%	70%	74%

## Appendix B EXAMPLE Problem Solving Rubrics

#### PROBLEM SOLVING VALUE RUBRIC

for more information, please contact value@aacu.org



The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student

#### Definition

Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.

#### Framing Language

Problem-solving covers a wide range of activities that may vary significantly across disciplines. Activities that encompass problem-solving by students may involve problems that range from well-defined to ambiguous in a simulated or laboratory context, or in real-world settings. This rubric distills the common elements of most problem-solving contexts and is designed to function across all disciplines. It is broad-based enough to allow for individual differences among learners, yet is concise and descriptive in its scope to determine how well students have maximized their respective abilities to practice thinking through problems in order to reach solutions.

This rubric is designed to measure the quality of a process, rather than the quality of an end-product. As a result, work samples or collections of work will need to include some evidence of the individual's thinking about a problem-solving task (e.g., reflections on the process from problem to proposed solution; steps in a problem-based learning assignment; record of think-aloud protocol while solving a problem). The final product of an assignment that required problem resolution is insufficient without insight into the student's problem-solving process. Because the focus is on institutional level assessment, scoring team projects, such as those developed in capstone courses, may be appropriate as well.

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- Contextual Factors: Constraints (such as limits on cost), resources, attitudes (such as biases) and desired additional knowledge which affect how the problem can be best solved in the real world or simulated setting.
- Critique: Involves analysis and synthesis of a full range of perspectives.
- Feasible: Workable, in consideration of time-frame, functionality, available resources, necessary buy-in, and limits of the assignment or task.
- . "Off the shelf" solution: A simplistic option that is familiar from everyday experience but not tailored to the problem at hand (e.g. holding a bake sale to "save" an underfunded public library).
- · Solution: An appropriate response to a challenge or a problem.
- . Strategy: A plan of action or an approach designed to arrive at a solution. (If the problem is a river that needs to be crossed, there could be a construction-oriented, cooperative (build a bridge with your community) approach and a personally oriented, physical (swim across alone) approach. An approach that partially applies would be a personal, physical approach for someone who doesn't know how to swim.
- Support: Specific rationale, evidence, etc. for solution or selection of solution.

## PROBLEM SOLVING VALUE RUBRIC

for more information, please contact value@aacu.org



#### Definition

Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Miles 3	stones 2	Benchmark 1
Define Problem	Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.	Demonstrates the ability to construct a problem statement with evidence of most relevant contextual factors, and problem statement is adequately detailed.	Begins to demonstrate the ability to construct a problem statement with evidence of most relevant contextual factors, but problem statement is superficial.	Demonstrates a limited ability in identifying a problem statement or related contextual factors.
Identify Strategies	Identifies multiple approaches for solving the problem that apply within a specific context.	Identifies multiple approaches for solving the problem, only some of which apply within a specific context.	Identifies only a single approach for solving the problem that does apply within a specific context.	Identifies one or more approaches for solving the problem that do not apply within a specific context.
Propose Solutions/Hypotheses	Proposes one or more solutions/hypotheses that indicates a deep comprehension of the problem. Solution/hypotheses are sensitive to contextual factors as well as all of the following: ethical, logical, and cultural dimensions of the problem.	Proposes one or more solutions/hypotheses that indicates comprehension of the problem. Solutions/hypotheses are sensitive to contextual factors as well as the one of the following: ethical, logical, or cultural dimensions of the problem.	Proposes one solution/hypothesis that is "off the shelf" rather than individually designed to address the specific contextual factors of the problem.	Proposes a solution/hypothesis that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
Evaluate Potential Solutions	Evaluation of solutions is deep and elegant (for example, contains thorough and insightful explanation) and includes, deeply and thoroughly, all of the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is adequate (for example, contains thorough explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is brief (for example, explanation lacks depth) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is superficial (for example, contains cursory, surface level explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.
Implement Solution	Implements the solution in a manner that addresses thoroughly and deeply multiple contextual factors of the problem.	Implements the solution in a manner that addresses multiple contextual factors of the problem in a surface manner.	Implements the solution in a manner that addresses the problem statement but ignores relevant contextual factors.	Implements the solution in a manner that does not directly address the problem statement.
Evaluate Outcomes	Reviews results relative to the problem defined with thorough, specific considerations of need for further work.	Reviews results relative to the problem defined with some consideration of need for further work.	Reviews results in terms of the problem defined with little, if any, consideration of need for further work.	Reviews results superficially in terms of the problem defined with no consideration of need for further work

# INTEGRATIVE CRITICAL THINKING RUBRIC

	Advanced	Competent	Developing	Unsatisfactory
	4	3	2	1
Engages complex questions  Addresses complex issues, ideas, objects, or events	Sophisticated explanation of an issue or problem that is relevant, accurate, clear, and specific.	Explanation of an issue or problem that shows adequate evidence of relevancy, accuracy, clarity, and specificity.	Limited explanation of an issue or problem that is irrelevant, inaccurate, unclear, or unspecific.	Lacks an explanation of an issue or problem.
Information literacy ekills  Locates, selects, and uses information to investigate multiple disciplinary perspectives	Includes a significant number of sources that are relevant, credible, integrative, and purposeful.  Information resources are evaluated based on the information need and the context in which the information will be used.  Alternative viewpoints are thoroughly explored.	Includes an adequate number of sources that are relevant, credible, integrative, or purposeful.  Information is taken from sources with enough interpretation/evaluation to develop a coherent analysis or synthesis.  Alternative viewpoints are considered.	Includes limited sources that may not always be relevant, credible, integrative, or purposeful.  Information is taken from sources with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis.  Alternative viewpoints are acknowledged/mentioned.	Lacks appropriate sources.  Information is taken from sources without any interpretation/evaluation.  Alternative viewpoints are not considered.
Multiple disciplinary perspectives In the context of a disciplinary perspective, demonstrates an understanding of broader general education issues, ideas, objects, or events - past and present.	Provides significant, sophisticated, and imaginative integration of both disciplinary and general education perspectives.	Provides adequate integration of both disciplinary and general education perspectives.	Provides limited integration of disciplinary and general education perspectives.	Includes no integration of disciplinary and general education perspectives.
Conclusions, implications, and consequences Includes an analysis and evaluation of pros, cons, and compromises. Opposing viewpoints and alternatives are explored and summarized.	Consistently demonstrates superior knowledge and performance and reflects logical scrutiny of the issue or problem. Clearly articulates the arguments made.	Demonstrates average or adequate knowledge and performance and reflects logical scrutiny of the issue or problem. Articulates an argument.	Demonstrates limited knowledge and awareness of the issue or problem. Lacks a clear argument. With additional effort, competence may be attainable.	Lacks knowledge and awareness of the issue or problem. No argument or an illogical argument provided.

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