



**Managing Risk at the
U of A: Leading with
purpose to make a
lasting, positive impact**

December 2023



**UNIVERSITY
OF ALBERTA**

Leading
with purpose.

**ENTERPRISE
RISK MANAGEMENT
FRAMEWORK**



TERRITORIAL ACKNOWLEDGEMENT

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The University of Alberta, its buildings, labs, and research stations are primarily located on the traditional territory of Cree, Blackfoot, Métis, Nakota Sioux, Iroquois, Dene, and Ojibway/Saulteaux/Anishinaabe nations; lands that are now known as part of Treaties 6, 7, and 8 and homeland of the Métis

**Leading
With Purpose.**

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1.0 INTRODUCTION

1.1 Overview

The University of Alberta (university) community actively performs risk management and incorporates risk management into everyday decision making. Sometimes risk management is simplistic and performed instantaneously; however, in an environment of significant change and increasing competition risks can become more complex.

The Enterprise Risk Management (ERM) Framework enables the university to assume risk in a managed way to support the achievement of the university's mission, vision, strategic and operational objectives.

Following established ERM processes allows for the university's risks, including opportunities, to be identified, analyzed, evaluated, treated, recorded and monitored. In addition, ERM processes support the university community in managing risk by providing a mechanism to discuss risks, report and communicate significant risks, and utilize the risk information as a basis for decision making and accountability across the university.

1.2 Purpose

The purpose of the ERM Framework is to create and protect the university's value by managing uncertainties that could influence achieving the university's mission, vision, strategic and operational objectives. Implementing an effective ERM Framework achieves the following key objectives for the university:

- Establish a structured and consistent language and approach to risk management that is aligned with the university's objectives and culture. It can be utilized at all levels of the university (e.g. institutional / enterprise wide, operational).
- Create and maintain a risk aware culture that uses insight and foresight to proactively manage risks and integrate ERM into the university's activities, policies, processes, procedures, internal controls and decision making.
- Assign and communicate the ERM roles and responsibilities at all levels of the university to highlight that everyone is a risk manager.

- Promote systematic identification, analysis, evaluation, treatment, recording and reporting, monitoring and review, communication and consultation of risk at all levels of the university.
- All significant risks are identified and are being managed and monitored under a holistic approach consistent with the university's risk appetite.
- Support the achievement of the university's mission, vision and objectives.
- Encourage innovation and assist in improving the university's performance and impact for Alberta and beyond.

1.3 Scope

This Framework applies to all members of the university community and all activities conducted by or on behalf of the university.

1.4 Context

The International Organization for Standardization (ISO) has established and maintains a worldwide standard, 31000, on the guidelines for risk management. ISO 31000 is periodically updated with the latest version released in 2018. Continuing with the university's recent evolution and vision to leverage our new structure and align our resources to achieve deeper and more transformational impacts, the university has implemented an ERM Framework utilizing the ISO 31000: 2018 standards.

UNIVERSITY OF ALBERTA'S MISSION

Within a vibrant and supportive learning environment, the University of Alberta discovers, disseminates and applies new knowledge through teaching and learning, research and creative activity, community involvement and partnership. The U of A gives a national and international voice to innovation in our province, taking a lead role in placing Canada at the global forefront.

2.0 BACKGROUND

2.1 What is Risk?

Risks are the effect of uncertainty on the university’s objectives, which could be positive, negative or both. The university has the following two types of risks:

- **Institutional risks** - risks having impact on the university’s ability to achieve its mission, vision and strategic objectives.
- **Operational risks** - risks having impact on the university’s day to day activities and operational objectives (e.g. college, faculty, portfolio, department, unit, process, project, etc.).

An operational risk may also be considered an institutional risk if it impacts both the operational and strategic objectives.

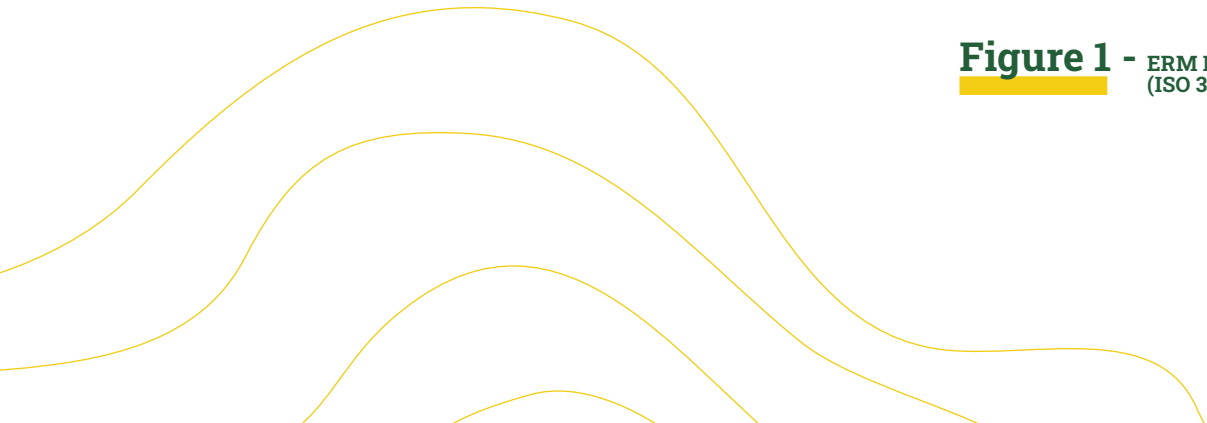
2.2 What is an Enterprise Risk Management Framework?

ERM is a series of coordinated activities to direct and control the university with regards to risk. It provides a consistent and systematic approach for the Board of Governors (Board), executive, leadership, academic faculty members (faculty), staff and all representatives acting on behalf of the university to manage risks and maximize opportunities related to the achievement of our strategic and operational objectives.

The university’s ERM Framework outlines our approach to effectively and efficiently perform ERM. Figure 1 illustrates the components required for an effective ERM Framework.



Figure 1 - ERM Framework (ISO 31000: 2018)



3.0 GUIDING PRINCIPLES

3.1 Overview

The ERM Framework has been established to create and protect the university’s value to generate maximum impact by leading with purpose in education, research and engagement. The ERM Framework encourages innovation and transformation, and it supports the achievement of the university’s objectives. Figure 2 provides an overview of the principles required for effective risk management.

This ERM Framework does not replace any traditional risk management processes currently in place, rather it facilitates integration to make day-to-day risk management more effective. It will enhance decision making processes already in place and provide prioritization of resources, but does not require additional resources to execute.

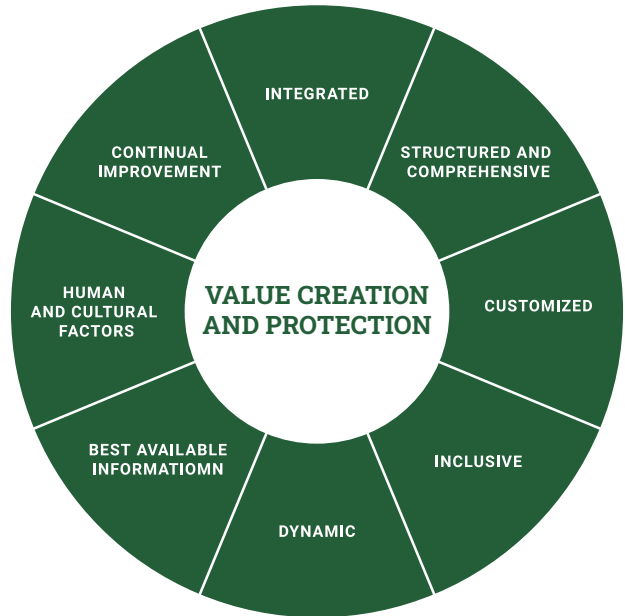


Figure 2 - ERM Principals (ISO 31000: 2018)



3.2 Principles

The following provides an overview of the principles required to effectively manage risk at the university:

PRINCIPLES	REQUIREMENTS
Integrated	Risk management is an integral part of all university activities.
Structured and comprehensive	A structured and comprehensive approach to risk management contributes to consistent and comparable results.
Customized	The ERM Framework and process are customized and proportionate to the university's external and internal environment related to our objectives.
Inclusive	Appropriate and timely involvement of stakeholders enables their knowledge, views, and perceptions to be considered. This results in improved awareness, informed risk management, appropriate decision making and achievement of objectives.
Dynamic	Risks can emerge, change, or disappear as the university's external and internal environment changes. Risk management anticipates, detects, acknowledges, and responds to those changes and events in an appropriate and timely manner.
Best available information	The inputs to risk management are based on historical and current information, as well as on future expectations. Risk management explicitly takes into account any limitations and uncertainties associated with such information and expectations. Information should be timely, clear, reliable and available to relevant stakeholders.
Human and cultural factors	Human behavior and culture significantly influence all aspects of risk management at each level and stage. The Board, Executive and Leadership provide the overall tone from the top to express the importance of risk management throughout the university.
Continual improvement	Risk Management is continually improved through learning and experience.

3.3 Risk Culture

Risk culture is the values, beliefs, knowledge, attitudes and understanding about risk across the university.¹ A strong risk culture is essential for this Framework to be effective in promoting risk awareness, risk taking and risk management. The university community supports a strong and positive risk culture, where, as a minimum:

- ERM is seen as an enabler, rather than a barrier, for achieving the university’s objectives at all levels of the university.
- Everyone in the university community is aware, understands and utilizes ERM within their role and responsibility, feeling comfortable to identify and discuss actual or potential risks freely and openly.
- ERM is integrated into the university’s activities, policies, processes, procedures, internal controls and decision making in an efficient and effective manner.
- Risks are continually monitored to ensure they are updated and/or identified for changes in the university’s environment. The university community collaborates and provides support to collectively manage the risks within the university’s risk appetite or mitigate risks to an acceptable level in a proactive and responsive manner.

4.0 ROLES AND RESPONSIBILITIES

All members of the university community manage risk and work collaboratively to ensure an effective ERM program is in place. Defining clear roles and responsibilities for the ERM program at all levels of the university allows for:

- Risks to be identified, analyzed, evaluated, managed and monitored effectively and efficiently.
- Assists in the achievement of the university’s objectives.
- Protects and creates value for the university.
- Facilitates strong and consistent governance, risk management and internal controls.
- Empowers each person at the university to manage risk, capitalize on opportunities and innovate.

There are several ERM roles and responsibilities throughout the university and as such the *The Three Lines Model*² has been adapted to outline the distinct roles and responsibilities and how they effectively coordinate, collaborate and communicate. The main roles and responsibilities within the model are summarized in Figure 3 and below.

¹As per the Institute of Risk Management - [link](#).

²As per “The IIA’s Three Lines Model - An Update of the Three Lines of Defense” document, which can be viewed [here](#).

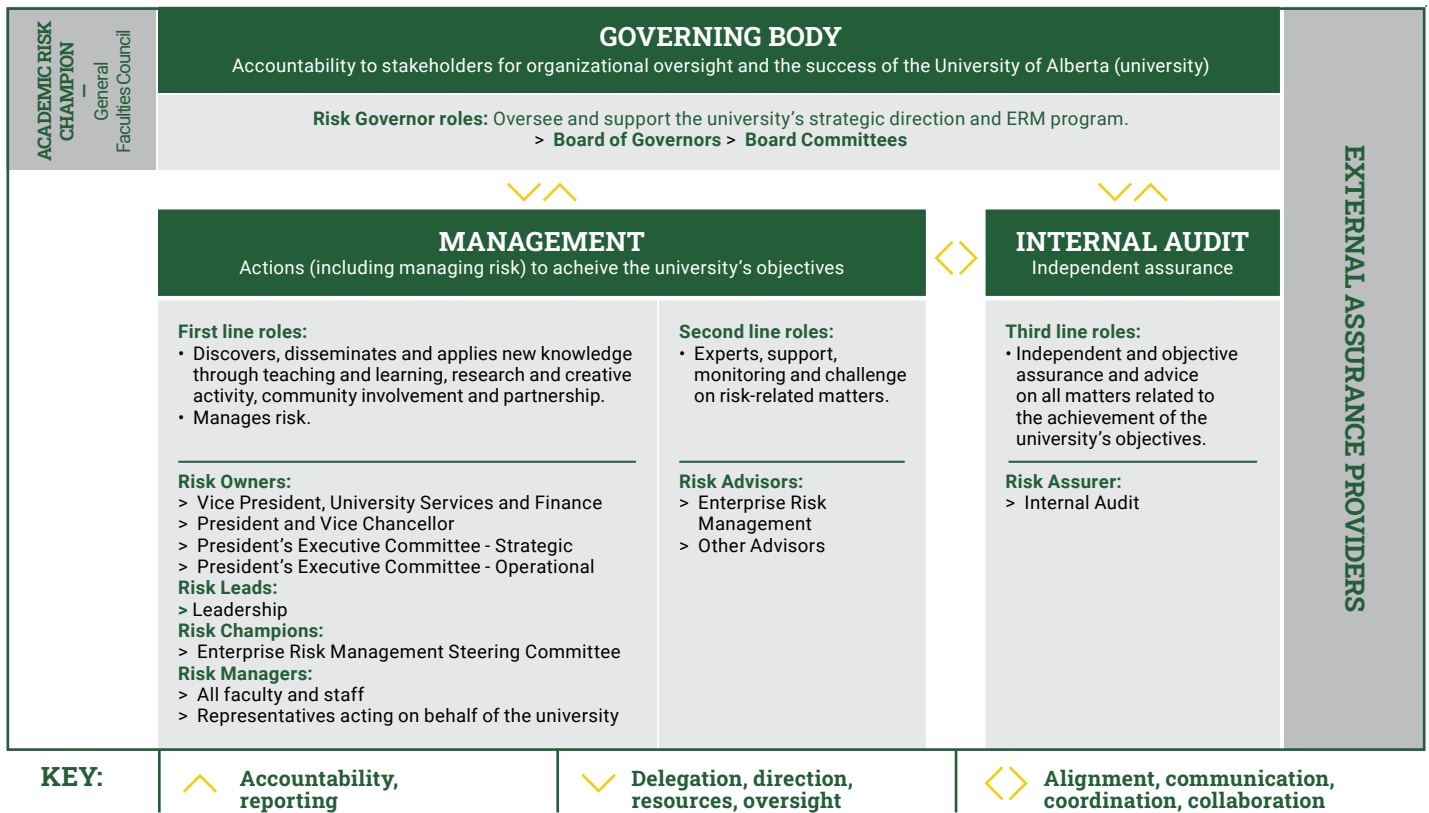


Figure 3 - University of Alberta's risk management roles and responsibilities

A. Governing Body - Those bodies who are accountable to stakeholders for organizational oversight and success of the university. This includes the Board and standing committees. The General Faculties Council (GFC) is an academic risk champion that considers risks applicable to their authority as set out in the post-secondary learning act (PSLA).

B. Three Lines

Management

- 1. First Line** - Those individuals who are responsible for managing risk on a day-to-day basis to achieve the university's mission, vision and strategic objectives. This includes all employees, from faculty and staff to the President's Executive Committee - Operational (PEC-O) as well as executive direct reports to the President, President's Executive Committee - Strategic (PEC-S).
- 2. Second line** - Those individuals whose function is to support, facilitate, coordinate, guide and oversee the first line in managing risk. This includes the ERM department and other specialized advisors (e.g. Office of the General Counsel, Information and Privacy Office, Risk Management and Insurance, Human Resources, etc.).

Internal Audit

- 3. Third Line** - Those individuals responsible for providing independent assurance to the Board and PEC-S on the design and operating effectiveness of the university's risk management. This includes anyone in or working for the Internal Audit department.

C. External Assurance Providers - Those individuals or organizations that provide additional assurance on the design and operating effectiveness of the university's risk management. This includes external consultants, accreditations, regulators, etc.

ERM does not require additional resources, rather it is integrated into all university's activities and assists in risk-based decision making with the goal of achieving the university's mission, vision and objectives. See [Appendix A](#) for the detailed roles and responsibilities.

5.0 RISK APPETITE

5.1 Overview

Risk appetite outlines the amount of risk the university is willing to accept in the pursuit of its objectives. The appetite for risk will vary according to the decision or activity undertaken and requires ensuring that potential benefits and risks are fully understood before proceeding.

The risk target will outline the short term goals for the risk level the university is wanting to achieve in one and three years. This will provide a mechanism to track the trend of the risk recognizing the significant effort that is made to manage the risks.

Best practices will be monitored and as the university’s ERM program continues to mature, there may be value in providing further guidance on the amount of risk the university is willing to accept (e.g. risk appetite by risk category).

5.2 Institutional Risk Appetite Statement

Over the next ten years, the university is striving for deeper and more transformational impact and promotes doing things fundamentally different. It is understood that there is an element of risk in any decision or activity and **all members of the university community are encouraged to responsibly manage risk by leading with purpose and making a lasting, positive impact that assists the university in achieving its mission, vision and objectives.**

5.3 Risk Appetite Approach

Based on the institutional risk appetite statement noted above, each risk will have an individual risk appetite and risk targets (if applicable) established.

The risk appetite will identify the level of risk the university is willing to accept in the pursuit of its objectives on a long term basis. Understanding that it may take time to achieve the university’s risk appetite, risk targets will be established to achieve the long term risk appetite.

SHAPE: THE UNIVERSITY STRATEGIC PLAN 2023-2033

Inspired by our long-standing mission to uplift the whole people, the University of Alberta will be distinguished in 2033 for its power to improve lives and communities in Alberta, in Canada and around the world. We will be at the forefront of educating a growing province with global ambitions.

AND THAT’S WHAT LEADING WITH PURPOSE MEANS TO US:

educating, researching and engaging in deliberate, purposeful ways - in order to make a lasting, positive difference.



6.0 THE ENTERPRISE RISK MANAGEMENT PROCESS

Whether the objectives are institutional or operational, it is important to consider the risks, positive or negative, before making a decision. The university’s ERM process is scalable for broad use, is an integral part of the university’s decision making process and is integrated into the university’s activities, policies, processes, procedures and internal controls. Using the ERM process shown in Figure 4 helps identify, analyze,

evaluate, treat, monitor, and communicate risks specific to your objectives as well as provide input and information into the institutional risks.

An ERM Process Guide, see [Appendix B](#), has been created and is paired with decision processes and risk assessment tools to proactively manage risk as a part of the university’s day-to-day activities. Decision making processes will vary depending on the situation and how the risk assessment is framed.

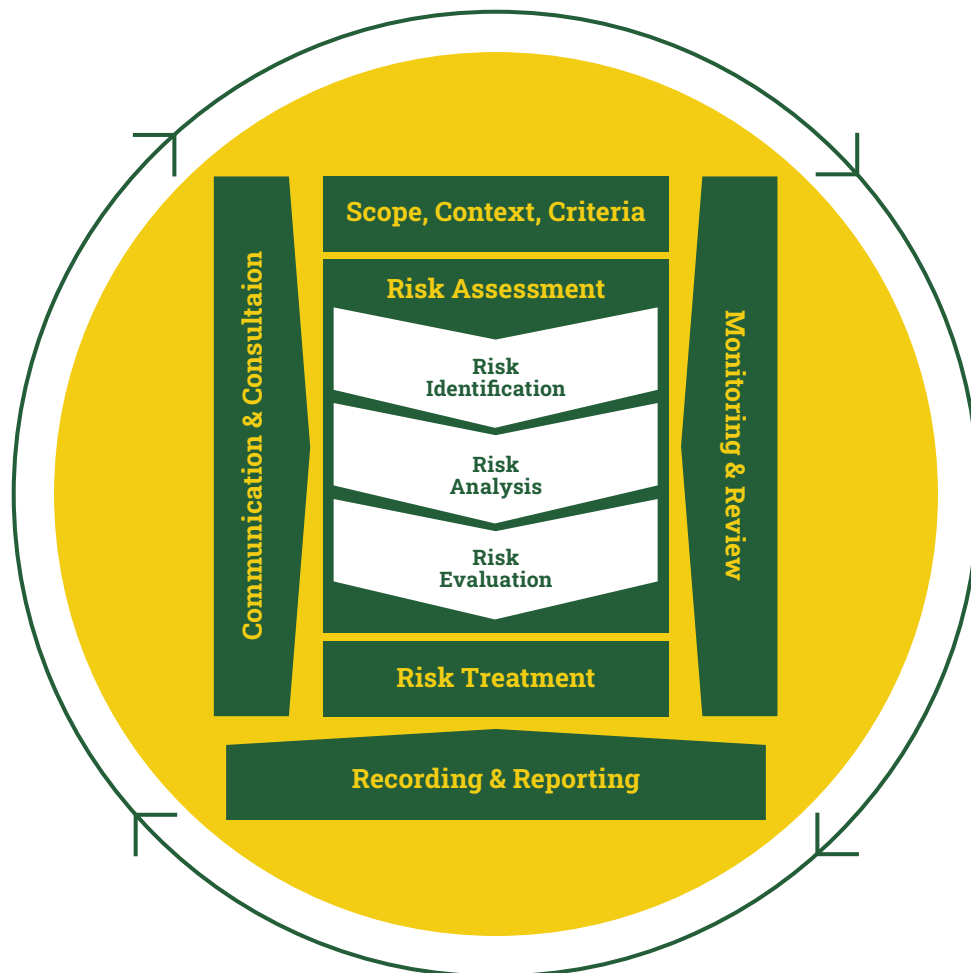


Figure 4 - University’s ERM Process (ISO 31000: 2018)

7.0 ENTERPRISE RISK MANAGEMENT PROGRAM ADMINISTRATION

7.1 Key Activities and Deliverables

The ERM department facilitates and coordinates the ERM Program to support the university in performing the following activities:

- Institutional Risks:** The ERM department facilitates the recording and reporting of the top institutional risks with the Enterprise Risk Management Steering Committee (ERMC), which is reviewed by PEC-S.
- Operational Risks:** Risk Leads and Risk Managers perform risk management as a part of their day-to-day activities. These risks should be recorded utilizing the ERM process and tools, reported on and managed based on the organizational and governance structures in place at the university. If an operational risk is complex, integrated and/or cannot be mitigated to an acceptable level, the ERM department is available to assist. Risk Leads and Risk Managers are to collaborate with ERMC members to provide information and reporting on significant operational risks to the Committee so that they can be reviewed, discussed and reported across the university. The ERMC members are responsible for providing information back to their areas to continuously learn and improve on risk management processes.
- Emerging Risks:** The university community is responsible for recording and reporting emerging risks. Institutional risks should be reported to the ERM department and Risk Owners for review to determine the impact on the university. Operational risks should be reported based on existing organizational and governance structure. If the operational risk is significant, you may consult with the ERM department. ERMC members report, at minimum quarterly, on emerging risks.

The following outlines the key deliverables of the ERM Program:

SCOPE	TIMING	STAKEHOLDERS
<p>Regular updates on the:</p> <ul style="list-style-type: none"> ERM Program Top Institutional Risks (including emerging risks and additional risk mitigation strategies) 	<p>At minimum quarterly or as required</p>	<ul style="list-style-type: none"> Quarterly: PEC-S and BARC Semi-annually: Board
<p>Review:</p> <ul style="list-style-type: none"> ERM Policy including the Institutional Risk Appetite Statement ERM Framework 	<p>At minimum every five years or as required</p>	<ul style="list-style-type: none"> Policy: PEC-S, BARC, Board Framework: VP, USF

7.2 Continuous Improvements and Maturity

ERM is a developing field and it is key that the university's ERM Program continuously improve and evolve as updates in the worldwide standards are implemented, organizations establish best practices and the university environment changes. Establishing an ERM network to discuss and maintain current on the best practices is important for the university to be one of the world's great universities with transformational impact. Over time, the university's ERM Program will mature and integrate throughout the university in an effective and efficient manner.

The university's ERM Framework will be reviewed at minimum every five years, or as appropriate, to update for worldwide standards, best practices, university's environment, and to meet the needs of the university.

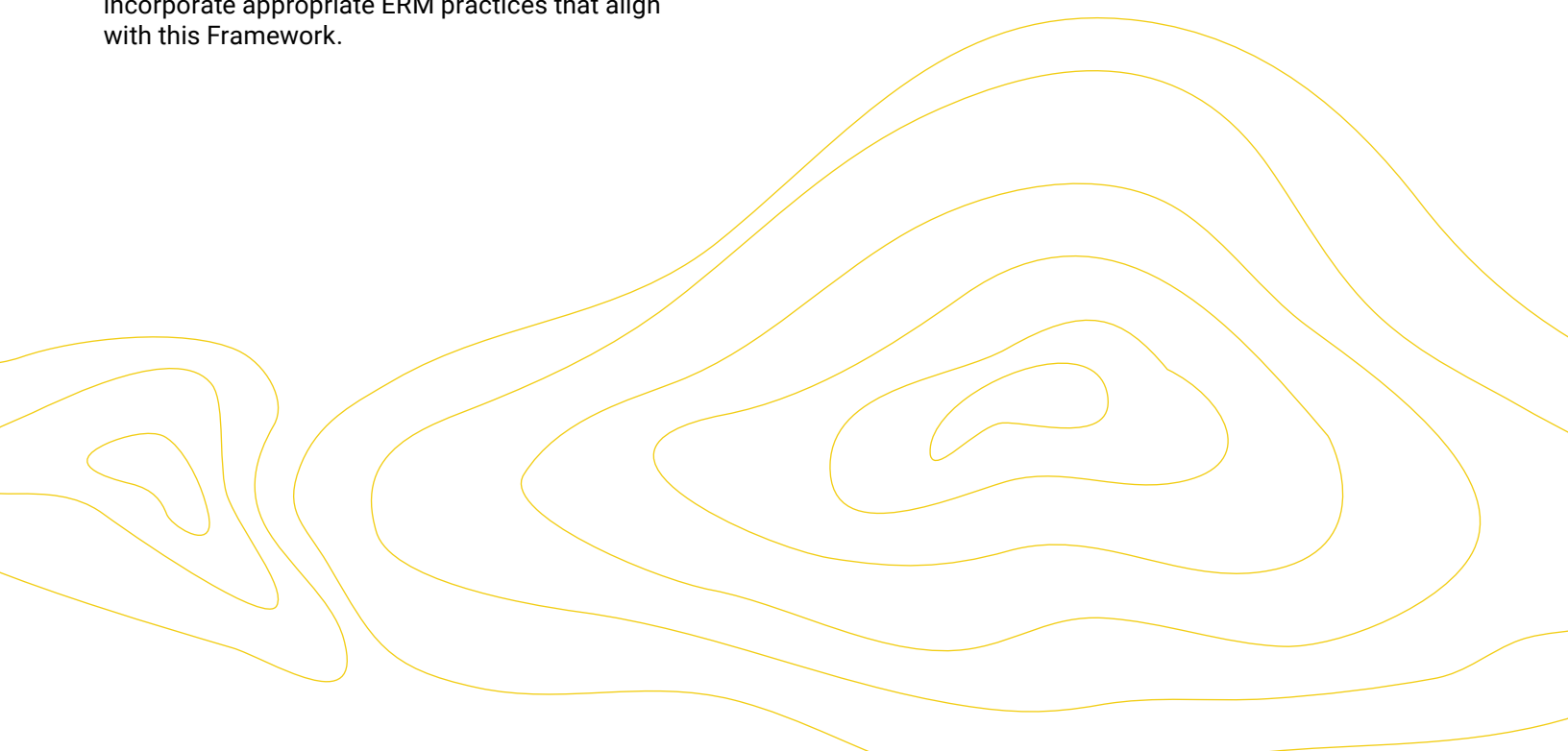
7.3 Training and Awareness

Training and awareness are key to effectively implementing ERM into the university using a common risk language and approach. The sustainability of ERM within the university is primarily driven by the university's ability to understand and consistently apply and integrate the principles of this Framework within the university's activities, policies, processes, procedures, internal controls and decision making.

The ERM department provides training and awareness to the university community on an on-going basis through both formal and informal mechanisms. The ERM department is available to assist colleges, faculties, departments, areas, programs, projects, etc. in learning to use and incorporate appropriate ERM practices that align with this Framework.

DID YOU KNOW?

The ERM department's role is to promote and facilitate a consistent, standardized ERM process and tools for the management and governance of risk. The department also encourages the adoption of leading practices and provides support and guidance to help improve the ERM maturity across the institution.



8.0 DEFINITIONS

The following key definitions generally have been adapted from ISO, 31000: 2018 “Risk management - Guidelines” and Guide 73 “Risk management - Vocabulary - Guidelines for use in standards”.

Consequence - The outcome of an event, positive or negative, affecting the university’s objectives.

Controls - The measure that maintains and/or modifies risk.

Enterprise Risk Management - The coordinated activities to direct and control the university with regard to risk.

Enterprise Risk Framework - A set of components that provide the foundation, governance and accountabilities for designing, implementing, evaluating, improving and integrating risk management across the university.

Event - The occurrence or change of a particular set of circumstances.

Likelihood - The chance of something happening that may be expressed as the probability or frequency of a risk occurring.

- **Probability** - The extent to which an event is likely to occur.
- **Frequency** - The rate at which an event occurs or is repeated over a particular period of time.

Objectives - An aim or desired result that the university wants to achieve.

- **Strategic objectives** - An aim or desired result that the university wants to achieve for the entire institution.
- **Operational objectives** - An aim or desired result that the university wants to achieve in the day-to-day and operational activities. This can be at any level of the university (e.g. college, faculty, program, project, process).

Risk - The effect of uncertainty on the university’s objectives. An effect is a deviation from the expected that can be positive (commonly referred to as an opportunity), negative, or both.

- **Institutional Risk** - A risk that affects or is created by the university’s mission, vision and strategic objectives.
- **Top Institutional Risk** - An institutional risk that the ERM and PEC-S have deemed the highest importance for the university to actively manage to achieve the university’s mission, vision and strategic objectives. Some organizations refer to this as a “key” risk.
- **Operational Risk** - A risk that affects or is created by the university’s operational objectives.
- **Emerging Risk** - A new risk, or a familiar risk in a new or unfamiliar context. These risks are threats or opportunities that are perceived to be potentially significant to the university, but may not be fully understood and assessed.³

Risk Appetite - The amount of risk the university is willing to accept in the pursuit of its objectives on a long term basis. Understanding that it may take time to achieve the university’s risk appetite, risk targets will be established to achieve the long term risk appetite.

- **Risk Target** - The amount of risk the university is targeting to accept in the short term, which will be outlined for the one and three year time horizon.

Risk Culture - The values, beliefs, knowledge, attitudes and understanding about risk across the university.⁴

- **Risk Aware Culture** - A positive risk culture where the university community understands, utilizes, integrates and values the ERM Program.

Uncertainty - It is not clearly or precisely known, understood or determined.

³Adapted from the International Risk Governance Council - [link](#).

⁴As per the Institute of Risk Management - [link](#).

University community - All employees, (including but not limited to academic staff, support staff, excluded staff and postdoctoral fellows as outlined and defined in the [Recruitment Policy \(Appendix A and Appendix B: Definitions and Categories\)](#) adjunct professors, professors emeriti, lecturers, clinical staff; all students (including undergraduate, graduate and Continuing & Professional Education students); visitors, volunteers, contractors, and members of the Board of Governors.

Vulnerability - This is the level of preparedness that the university has in place in the case that an event may occur (e.g. risk mitigation strategies, controls, etc.).

Velocity - A measure on how fast an event may affect the university.



9.0 REFERENCES

- Enterprise Risk Management Policy
- ISO 31000: 2018 “Risk management - Guidelines”
- ISO Guide 73 “Risk management - Vocabulary - Guidelines for use in standards”
- ISO 31010-2019 “Risk Management - Risk Assessment Techniques”
- Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management—Integrating with Strategy and Performance (2017)
- COSO Compliance Risk Management: Applying the COSO ERM Framework

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APPENDIX A

ENTERPRISE RISK MANAGEMENT ROLES AND RESPONSIBILITIES

The following outlines the university’s ERM roles and responsibilities following The Three Lines Model⁴ :

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
GOVERNING BODY	
<p>Board of Governors (Board), Board Audit and Risk Committee (BARC) and Other Board Committees</p> <p><i>Role: Risk Governor</i></p>	<ul style="list-style-type: none"> ● Oversee and approve the university’s strategic direction ensuring risks are adequately considered. ● Oversee and support the university’s ERM program, through BARC, ensuring the following: <ul style="list-style-type: none"> » Ensure an ERM program is established, maintained and updated by management. » Establish and maintain a risk aware culture and support strategic oversight, insight and foresight for proactive risk management. » Guide and coordinate the other Board committees to consider risks applicable to their mandate and incorporate ERM into the decision making process. » Review, monitor and keep the Board apprised of significant changes to the university’s institutional risks including the risk levels, opportunities, emerging risks, and risk mitigation strategies (including internal controls). » Provide regular Board education about the ERM program and associated roles and responsibilities. » Obtain assurance over the university’s ERM activities from multiple sources. ● Review and approve new and/or significant changes to the ERM Policy based on the recommendation from BARC. ● Board Committees responsibilities include: <ul style="list-style-type: none"> » Promote a risk aware culture and support strategic oversight, insight and foresight for proactive risk management. » Understand, support and utilize the ERM program and incorporate ERM into the decision making process. » Review, monitor and keep BARC apprised of significant changes to the institutional risks including the risk levels, opportunities, emerging risks and risk mitigation strategies that management has implemented related to the Committee’s area of responsibility.
<p>General Faculties Council (GFC) and Standing Committees</p> <p><i>Role: Academic Risk Champion</i></p>	<ul style="list-style-type: none"> ● Understand and support the university’s ERM program applicable to the GFC’s authority as set out in the PSLA. ● Consider risks applicable to the GFC’s authority over the academic mission and student affairs and keep the Board and management apprised of any significant changes.

⁴As per “The IIA’s Three Lines Model - An Update of the Three Lines of Defense” document, which can be viewed [here](#).

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
MANAGEMENT	
Executive	
<p>Vice President, University Services and Finance (VP, USF)</p> <p><i>Role: Risk Owner</i></p>	<p>Primary responsibility for the university’s ERM program ensuring the following:</p> <ul style="list-style-type: none"> ● ERM Policy and Framework are developed, reviewed, implemented and maintained. Review and approve the ERM Framework and obtain approval of the ERM Policy from the Board, through BARC. ● Risks are adequately considered in the development, achievement, monitoring and updating of the university’s strategic direction. ● Establish a risk aware culture to comply and integrate ERM into the university’s activities, policies, processes, procedures, internal controls and decision making. ● Exercise and promote strategic oversight, insight and foresight to proactively identify, assess and manage risks. ● Establish, monitor, review , update and communicate the university’s risk appetite with the support from ERMC and PEC-S. ● Co-sponsor the ERMC reviewing the membership and providing support. ● Review and monitor the university’s institutional risks, risk levels, opportunities, emerging risks and risk mitigation strategies (including internal controls). ● Report regularly to the PEC-S and the Board, through BARC, on the ERM program and significant changes to the university’s risk profile. ● Support the university in identifying, assessing, evaluating and managing operational risks. ● Ensure the appropriate allocation of resources to provide ERM education and execute the ERM program efficiently and effectively throughout the university and within the ERM department. ● Ensure regular Board and organizational training and education about the ERM program and associated roles and responsibilities.
<ul style="list-style-type: none"> ● President and Vice Chancellor ● President’s Executive Committee - Strategic (PEC-S) ● President’s Executive Committee - Operational (PEC-O) <p><i>Role: Risk Owner</i></p>	<p>Oversee and support the ERM program ensuring the following:</p> <ul style="list-style-type: none"> ● Risks are adequately considered in the development, achievement, monitoring and updating of the university’s strategic direction. ● Promote a risk aware culture to comply and integrate ERM into the university’s activities, policies, processes, procedures, internal controls and decision making. ● Support strategic oversight, insight and foresight for proactive risk management. ● Oversight of the ERMC, including approval of the ERMC terms of reference at minimum every five years and as required. VP, USF and Provost and Vice President, Academics co-sponsor the ERMC. ● Establish, monitor, review, update and communicate the university’s risk appetite with the support of ERMC. ● Each PEC-S member is ultimately accountable for oversight of the day-to-day management of institutional and operational risks applicable in their respective area. This includes identifying, assessing, evaluating and managing the risks within the university’s risk appetite.

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
	<ul style="list-style-type: none"> ● Review, approve and monitor the university’s risks, risk levels, opportunities, emerging risks and risk mitigation strategies (including internal controls) ensuring it is representative of the current environment and of highest importance. ● Provide guidance and obtain assurance that risk mitigation strategies, including internal controls, are designed and operating effectively. ● Review and endorse the ERM reporting prior to presenting to BARC. ● Ensure the appropriate allocation of resources to provide ERM education and execute the ERM program efficiently and effectively throughout the university.
First Line	
<p>Leadership</p> <ul style="list-style-type: none"> ● Colleges (e.g. Deans and College General Managers) ● Faculties, including Stand Alone Faculties (e.g. Deans and Faculty General Managers) ● Portfolio, Departments and Units (e.g. Chairs, Assistant Vice Presidents, Directors / Leads, Chiefs of Staff, Managers, Supervisors) ● Committees (e.g. Statutory Deans Council and Chairs Council) ● Other leaders <p><i>Role: Risk Lead</i></p>	<ul style="list-style-type: none"> ● Understand, support and utilize the ERM program and incorporate ERM into the decision making process. ● Risks are adequately considered in the development, achievement, monitoring and updating of the university’s strategic direction and operational goals in their respective areas. ● Promote a risk aware culture to comply and integrate ERM into the university’s activities, policies, processes, procedures, internal controls and decision making. ● Support strategic oversight, insight and foresight for proactive risk management. ● Understand the university’s risk appetite as it relates to their role. ● Ownership of the day-to-day management of institutional and operational risks applicable in their respective area and span of control. This includes identifying, assessing, evaluating and managing the risks within the university’s risk appetite. ● Designing and/or performing risk mitigation strategies, including internal controls, to manage the university’s risk within risk appetite. Providing guidance and obtaining appropriate levels of assurance that risk mitigation strategies, including internal controls, are designed and operating effectively. ● Coordinate with those having overlapping responsibilities to ensure that the university’s risks are appropriately identified and managed. Actively participate in the conduct of risk assessments being performed by others. ● Identify their ERMC member that represents their area receiving regular updates, training, advice and guidance on the ERM program. The ERM department is available to provide support to the ERMC member and leadership. ● Ensure the representatives acting on behalf of the university understand and implement the ERM program for their respective areas and provide open and honest communication with their university contact. ● Identify and advise their ERMC member of potential emerging risks, changes to existing risks and/or risks that can no longer be managed within the university’s risk appetite. Be open and transparent without hesitation. ● Actively participate in risk assessments. ● Seek information, training and/or support to enable them to perform ERM in their area. ● Ensure appropriate allocation of resources to provide ERM education and execute the ERM program efficiently and effectively in their respective areas.

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
<p>Enterprise Risk Management Steering Committee (ERMC)</p> <p><i>Role: Risk Champions</i></p>	<p>Representatives from the university’s leadership, referred to as Risk Champions, who support PEC-S by implementing, maintaining, monitoring, promoting and coordinating the ERM program for their respective PEC-S executive leader they are representing. In addition to the Leadership responsibilities noted above, ERMC members will perform the following:</p> <ul style="list-style-type: none"> ● Responsible for reviewing and providing feedback on the ERM Policy and Framework, other documents, tools, and templates. ● Propose the university’s risk appetite, including any changes, to PEC-S. Once the risk appetite is endorsed by PEC-S, assist in communicating and implementing the risk appetite. ● Accountable for maintaining and monitoring the institutional risk register, proposing changes to PEC-S for approval. This includes, but not limited to, the following: <ul style="list-style-type: none"> » Ensure the institutional risk register is updated as required to be representative of the current environment and of highest importance to the university. » Assign the PEC-S and ERMC member that is accountable for the institutional risk. It is noted that the ERMC member accountable may collaborate and/or request assistance from others to assist. » Identify and update the institutional risks, including opportunities, noting any emerging risks that should be monitored in a timely manner. » Continually assess and rate the risks ensuring the appropriate risk level. This should include identifying and monitoring the key risk indicators. » Determine the risk treatment to be within the university’s risk appetite. » Identify, execute and/or coordinate execution, monitor and update the additional risk mitigation strategies (including internal control) that are required to manage the risk within the university’s risk appetite in a timely manner. » Provide quarterly updates on the status of the additional risk mitigation strategies. » Provide guidance and obtain assurance that the risk mitigation strategies are designed and operating effectively. » Support the quarterly ERM reporting to BARC. ● Assist the PEC-S executive leadership area they are representing in identifying, assessing, evaluating and managing operational risks within the university’s risk appetite following the ERM program. ● Review and provide advice on the university’s activities, policies, processes, procedures, internal controls and decision making that will create a risk aware culture. This will assist in ensuring compliance, cultivating a positive culture, managing risk within the university’s risk appetite, and maturing the risk and internal control environment. The ERM department is available to provide support to the ERMC member. ● Provide and/or request the ERM department to provide the required training to the PEC-S area you are representing, ensuring appropriate understanding and utilization of the ERM program. This includes providing feedback on training programs and approaches. ● Work collaboratively with the ERM department ensuring a flow of information between the area they are representing and the ERM department regarding the ERM program.

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
<p>All Faculty & Staff</p> <p><i>Role: Risk Manager</i></p>	<ul style="list-style-type: none"> ● Develop an understanding and become competent in the implementation and continued use of the university’s ERM program in their respective areas. ● Be risk aware to comply and integrate ERM into the university’s activities, policies, processes, procedures, internal controls and decision making. ● Exercise strategic oversight, insight and foresight for proactive risk management. ● Understand the university’s risk appetite as it relates to their role. ● Responsible for effectively and efficiently taking and managing institutional and operational risks, positive and negative, in their area of responsibility. This includes identifying and communicating, assessing, evaluating and managing the risks within the university’s risk appetite. ● Design and/or perform risk mitigation strategies, including internal controls, to manage the university’s risk within risk appetite. ● Coordinate with those with overlapping responsibilities to ensure that the university’s risks are appropriately identified and managed. Actively participate in the conduct of risk assessments being performed by others. ● Ensure representatives acting on behalf of the university understand and implement the ERM program for their respective areas and provide open and honest communication with their university contact. ● Identify and advise their immediate leader of potential emerging risks, changes to existing risks and/or risks that can no longer be managed within the university’s risk appetite. Be open and transparent without hesitation. ● Seek information, training and/or support to enable them to perform ERM in their area.
<p>Representatives acting on behalf of the university of Alberta (e.g. contractors, consultants, outsourced service providers, etc.)</p> <p><i>Role: Risk Manager</i></p>	<p>It is expected for the university to practice effective ERM regardless of whether the university performs the activity internally or through third party representatives acting on behalf of the university. The university contact is responsible for ensuring the representative acting on behalf of the university performs the following where they relate to their scope of work:</p> <ul style="list-style-type: none"> ● Develop an understanding and become competent in the implementation and use of the university’s ERM program. ● Be risk aware to comply and integrate ERM into the university’s activities, policies, processes, procedures, internal controls and decision making. ● Exercise strategic oversight, insight and foresight for proactive risk management. ● Understand the university’s risk appetite. ● Responsible for effectively and efficiently taking and managing risks, positive and negative. This includes identifying, assessing, evaluating and managing the risks within the university’s risk appetite. ● Regular communication with the university contact on the management of risks including potential emerging risks, changes to existing risks and/or risks that can no longer be managed within the university’s risk appetite. ● Coordinate with those having overlapping responsibilities to ensure that the university’s risks are appropriately identified and managed. Actively participate in the conduct of risk assessments being performed by others.

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
Second Line	
<p>Enterprise Risk Management Department</p> <p><i>Role: Risk Advisor</i></p>	<p>Administrative responsibility to facilitate, coordinate and support the university’s ERM program ensuring the following:</p> <ul style="list-style-type: none"> ● Develop, implement, maintain, review (at minimum every five years), update and obtain approval for the ERM Policy, Framework, processes, templates and tools incorporating best practices applicable to the university’s activities. ● Collaborate with Strategic Planning to promote that risks are adequately considered in the development, achievement, monitoring and updating of the university’s strategic direction. ● Collaborate with key stakeholders throughout the university, including Other Risk Advisors, to promote a risk aware culture and integration of ERM into the university’s activities, policies, processes, procedures and decision making. ● Develop, maintain, review (at minimum every five years), update and obtain approval for the ERM terms of reference. Maintain, review regularly (at minimum annually), and obtain approval of the ERM membership. ● Executive Director, Internal Audit and ERM co-chairs the ERM. ● Set up ERM meetings and workshops, provide meeting packages and record minutes of the meetings. ● Assist ERM and PEC-S to establish, monitor, review, update the university’s risk appetite. ● Maintain and update the institutional risk register based on ERM, PEC-S and other university leadership guidance ensuring consistency. ● Obtain quarterly updates on the additional risk mitigation strategies required for the institutional risks. ● Draft regular reporting on the ERM program and significant changes that ERM and PEC-S have made to the university’s risk profile. This reporting is reviewed and endorsed by PEC-S before providing to the Board, through BARC. ● Perform ERM research, benchmarking and monitoring to identify best practices, trends and other information to assist ERM and PEC-S in their duties. ● Provide advice and support to the university in identifying, assessing, evaluating and managing institutional and operational risks. Support the university in maturing this capability and incorporating it into decision making. ● Provide training and education to the Board, including Board Committees, and the university about the ERM program and associated roles and responsibilities as required. <p>See Note 1 for safeguards required to ensure Internal Audit is independent and objective.</p>

ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
<p>Other Risk Advisors (e.g. Office of the General Counsel, Information and Privacy Office, Risk Management and Insurance, Human Resources, etc.)</p> <p><i>Role: Risk Advisor</i></p>	<ul style="list-style-type: none"> ● Understand the university’s ERM program and support strategic oversight, insight and foresight for proactive risk management. ● Promote a risk aware culture to comply and integrate ERM into the university’s activities, policies, processes, procedures, internal controls and decision making. Provide guidance and obtain assurance that risk mitigation strategies, including internal controls, are designed and operating effectively. ● Understand the university’s risk appetite as it relates to their role. ● Collaborate with the ERM department to ensure the university’s risk management approach reflects current best practices related to their area of expertise or knowledge and the approach is appropriately tailored to the university’s activities. ● Actively participate in the conduct of risk assessments and the monitoring of risks and actions as related to their area of expertise. ● Ensure representatives acting on behalf of the university understand and implement the ERM program for their respective areas and provide open and honest communication with their university contact. ● Responsible for providing advice and guidance in their area of expertise that includes identification, assessment, evaluation and management of risks. Support the university in maturing this capability. ● Identify their ERMC member that represents their area receiving regular updates, training, advice and guidance on the ERM program. The ERM department is available to provide support. ● Identify and advise their ERMC member of potential emerging risks, changes to existing risks and/or risks that can no longer be managed within the university’s risk appetite. Be open and transparent without hesitation. ● Seek information, training and/or support to enable them to perform ERM in their area.



ACCOUNTABLE PARTY	KEY ROLES AND RESPONSIBILITIES
Third Line	
<p>Internal Audit Department</p> <p><i>Role: Risk Assurer</i></p>	<ul style="list-style-type: none"> ● Provide independent and objective assurance and advisory services to the university’s governing body and management through a systematic, disciplined and risk-based approach. ● Promote a risk aware culture integrating ERM into the internal audit plan, engagements and other activities. ● Support strategic oversight, insight and foresight for proactive risk management. ● Internal audit assessments include evaluating whether: <ul style="list-style-type: none"> » Risks relating to the achievement of the university of Alberta’s strategic objectives are appropriately identified and managed, including effective and efficient internal controls. » Operations or programs are being carried out effectively and efficiently and their results are consistent with established goals and objectives. » Resources and assets are acquired economically, used efficiently, and protected adequately. » Established processes and systems enable compliance with the policies, procedures, laws, and regulations that could significantly impact the university. » Information and the means used to identify, measure, analyze, classify, and report information are reliable and have integrity. ● Provide recommendations for improvements regarding risk management and internal controls. <p>See Note 1 for safeguards required to ensure Internal Audit is independent and objective.</p>

Note 1 - The Internal Audit and ERM department has administrative responsibility for the university’s ERM program; therefore, the following safeguards are in place to ensure independence and objectivity:

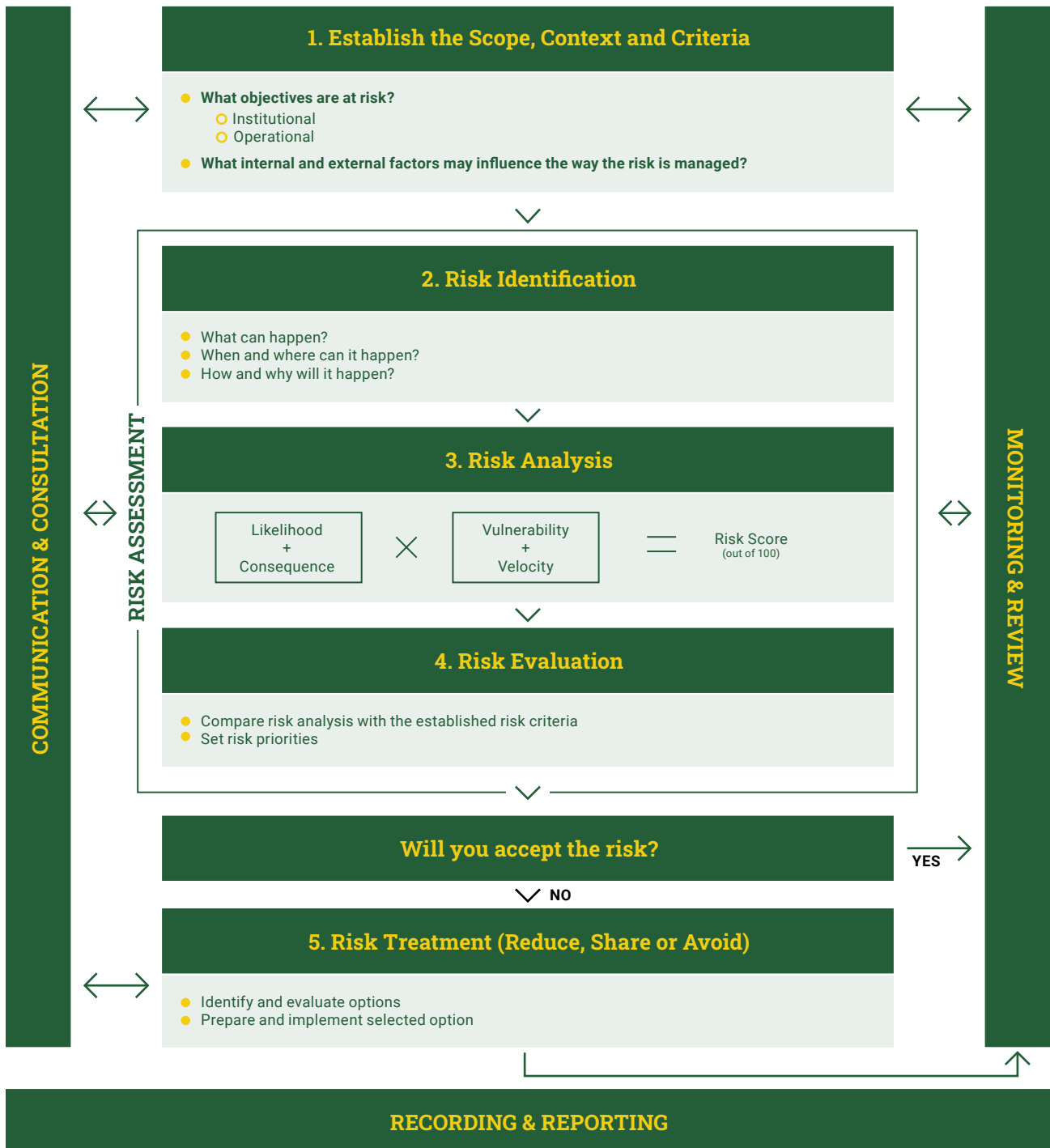
- If required, an independent third party is required to provide assurance over the ERM department role, responsibilities and deliverables.
- Management (PEC-S and ERMC) has direct operational responsibility and authority to identify, assess, evaluate, manage and report on the ERM program and activities. The ERM department does not perform these roles and responsibilities.

APPENDIX B

ENTERPRISE RISK MANAGEMENT PROCESS GUIDE

As outlined in the ERM Framework, Figure 5 provides an overview of the university’s ERM process that should be used for all risk assessments. Each step in the ERM process should occur in a continuous loop and be updated as the context changes.

Figure 5 - University of Alberta’s Enterprise Risk Management Process



I 1. SCOPE, CONTEXT, CRITERIA

In this step, you will be establishing the scope, context and criteria to customize the process, enabling effective risk assessment and appropriate risk treatment. If this step is missed you may increase the scope of your risk assessment and be challenged with too large of a context that cannot be mitigated easily.

A) Defining the Scope

In order to define the scope of the risk assessment, you will need to answer the following questions:

- a. What objectives are being considered? Is it institutional or operational objectives?
- b. What decisions do we need to make?
- c. What outcomes are expected from this process?
- d. What resources will be required? What are their responsibilities?
- e. Is there any integration with other projects, processes and activities?

Once you have answered the above questions, develop a high level (couple of sentences) scope statement that will be at the top of your risk assessment spreadsheet.

B) External and Internal Context

The external and internal context is the environment in which the university seeks to define and achieve its strategic objectives. You will need to understand the context for your specific risk assessment which may include, but not limited to, the following factors:

External Context

- a. The social, cultural, political, legal, regulatory, financial, technological, economic and environmental factors
- b. Key drivers and trends affecting the university's objectives
- c. External stakeholders' relationships, perceptions, values, needs and expectations

- d. Contractual relationships and commitments
- e. The complexity of the situation

Internal Context

- a. university's vision, mission, strategic and operational objectives
- b. university's culture
- c. Governance, organizational structure, roles and responsibilities
- d. university's policies, procedures, other requirements
- e. Standards, guidelines and models adopted by the university
- f. Capabilities, understood in terms of resources and knowledge (e.g. funding, resources, stakeholders, intellectual property, process, systems and technologies)
- g. Relationships with internal stakeholders, taking into account their perceptions and values
- h. Contractual relationships and commitments
- i. Interdependencies and interconnections

Once you have reviewed the external and internal context or environment related to the risk assessment that you will be completing, you can update the scope statement for any items that need to be considered or incorporated to effectively and efficiently manage the risk.

C) Defining risk criteria

You will need to define the risk criteria for your specific risk assessment, but it should be guided by the university's institutional risk appetite statement noted in the ERM Framework. In addition, the criteria should be defined taking into consideration the university's obligations and views of stakeholders.

To set your risk criteria, consider the following:

- a. The nature and type of uncertainties that can affect the outcomes and objectives (tangible and intangible)
- b. How business impacts (positive and negative) and likelihood will be defined and measured
- c. Time-related factors
- d. Consistency in the use of measurements
- e. How the level of risk is to be determined
- f. How combinations and sequences of multiple risks will be taken into account
- g. university's capacity

Once you have completed your risk criteria, it should be documented at the top of your risk assessment spreadsheet.

DID YOU KNOW?

While risk criteria should be established at the beginning of the process, they are dynamic and should be continually reviewed and amended, if necessary.

The goal is to keep your scope and risk criteria defined and clear, focusing on the root of the issue so that you can be successful in mitigating the risk. You can always note other opportunities for improvement along the way, but keep that in a "Parking Lot" for another task.

RISK ASSESSMENT

2. RISK IDENTIFICATION

In this step, you will be finding, recognizing and describing risks that may help or prevent the university from achieving its objectives. It is important that you have relevant and up-to-date information to perform this step and consider the following:

A) General Risk Identifiers

There are a variety of techniques to identify uncertainties that may affect one or more objectives. The following factors, and the relationship between factors, should be considered:

- a. Tangible and intangible sources of risk
- b. Causes and events
- c. Threats and opportunities
- d. Vulnerabilities and capabilities
- e. Changes in the external and internal context
- f. Indicators of emerging risks
- g. The nature and value of assets and resources
- h. Consequences and their impact on the university's objectives
- i. Limitations of knowledge and reliability of information
- j. Time-related factors
- k. Biases, assumptions and beliefs of those involved

B) University's Risk Categories

To make sure we identify and measure risk completely and consistently across the university, seven critical components to the university's education, research and operational activities have been identified and we refer to them as our "Risk Categories". [Appendix C](#) provides a fishbone of the Risk Categories and items to consider that will assist you in identifying, updating and validating risks specific to the university.

The following is an overview of the Risk Categories:

- a. **Core Mandate** - The university advances education and research to the benefit of Alberta and beyond. We foster and bridge all areas of inquiry – including the natural and applied sciences, humanities and social sciences, fine arts, health sciences and more. We do so to achieve transformational impact and lead with purpose in order to make a lasting, positive difference.
 - » **Education** - The university is focused on delivering innovative, flexible learning and experiences that prepare students as global citizens who make impacts on the world.
 - » **Research** - The university is focused on reinforcing and enhancing our research, innovation and creative activities to make impacts that solve the complex challenges facing the world.
- b. **People** - People are at the heart of what the university does. Our talented faculty, staff, and students are the foundation for our university's past achievements and our future ambitions.
 - » **Students** - The university is focused on giving graduate and undergraduate students, and life-long learners a rich, memorable and meaningful experience. Leading with purpose in education, research and engagement to generate more transformational impact for students.
 - » **Faculty and Staff** - The university is taking deliberate steps to support our faculty and staff and create a culture where everyone can achieve their full potential.
- c. **Financial** - Maximizing the amount of financial resources (e.g. grants, student tuition and fees, donations, insurance) to ensure long-term sustainability allows the university to deliver on its' core mandate efficiently, effectively and safely.
- d. **Infrastructure and Assets** - Infrastructure and assets are required to perform university activities and deliver on its core mandate efficiently, effectively and safely. Infrastructure and assets include, but not limited to, the following:
 - » Tangible capital assets (as stated on the financial statements)
 - Buildings and utilities (including roads and sidewalks)
 - Equipment, furnishings and systems (including Information Technology)
 - Learning resources



» Other infrastructure and assets

- Infrastructure and assets, including leased, that are not considered “tangible capital assets” (e.g. small tools and laboratory equipment)

e. Health and Safety - The university is committed to our people’s physical, psychological and cultural safety, and to providing a safe and healthy work and study environment that enables high-quality education and research.

f. Relationships and Reputation - These are groups and/or individuals outside of the university of Alberta whom we need a strong relationship with to achieve the mission, vision and strategic objectives (e.g. government, alumni, unions). This includes compliance to legislative and contractual requirements.

The governing bodies oversee the university in achieving the mission for their respective areas, roles and responsibilities. Therefore, they should be considered when identifying risks and opportunities.

Utilizing the general risk identifiers and university’s risk categories will assist you in identifying, updating and validating the risks given your context determined in step 1. Document all the risks in the risk assessment spreadsheet, even if they are out of the university’s control and/or they are already appropriately mitigated.

If the risk situation becomes complex and interrelated, please contact the ERM department to assist in the facilitation of the risk assessment.



3. RISK ANALYSIS

The purpose of risk analysis is to comprehend the nature of the risk and its characteristics including, where appropriate, the level of risk. The university has a defined risk scoring formula that is utilized to identify the risk appetite, risk target and current residual risk level for each risk identified in step 2.

A) Risk Scoring Formula

You will calculate the risk score for each risk identified with the following formula:

$$(\text{Likelihood} + \text{Consequence}) \times (\text{Vulnerability} + \text{Velocity}) = \text{Risk Score}$$

The following describes the components of the formula above:

- **Likelihood** - The chance of something happening that may be expressed as the probability or frequency of a risk occurring.
 - » **Probability** - The extent to which an event is likely to occur.
 - » **Frequency** - The rate at which an event occurs or is repeated over a particular period of time.
- **Consequence** – The outcome of an event, positive or negative, affecting the university’s objectives.

- **Vulnerability** – This is the level of preparedness that the university has in place in the case that an event may occur (e.g. risk mitigation strategies, controls, etc.).
- **Velocity** – A measure on how fast an event may affect the university.

For each of the components above, you will rate them on a scale of 1 to 5 based on the predefined criteria in [Appendix D](#). A risk score will be computed for each risk that you identified in step 2 above and will be categorized in the following levels:

RISK LEVEL	SCORE
Low	1 - 19
Medium	20 - 49
High	50 - 79
Extreme	80 - 100

In addition, the risk(s) can be displayed on a heat map as shown in Figure 6 below.

Figure 6 - Heat map

	10	10	20	30	40	50	60	70	80	90	100
VALUE Vulnerability + Velocity	9	9	18	27	36	45	54	63	72	81	90
	8	8	16	24	32	40	48	56	64	72	80
	7	7	14	21	28	35	42	49	56	63	70
	6	6	12	18	24	30	36	42	48	54	60
	5	5	10	15	20	25	30	35	40	45	50
	4	4	8	12	16	20	24	28	32	36	40
	3	3	6	9	12	15	18	21	24	27	30
	2	2	4	6	8	10	12	14	16	18	20
	1	1	2	3	4	5	6	7	8	9	10
	0	1	2	3	4	5	6	7	8	9	10
	RISK (Likelihood + Consequence)										

B) Risk Appetite

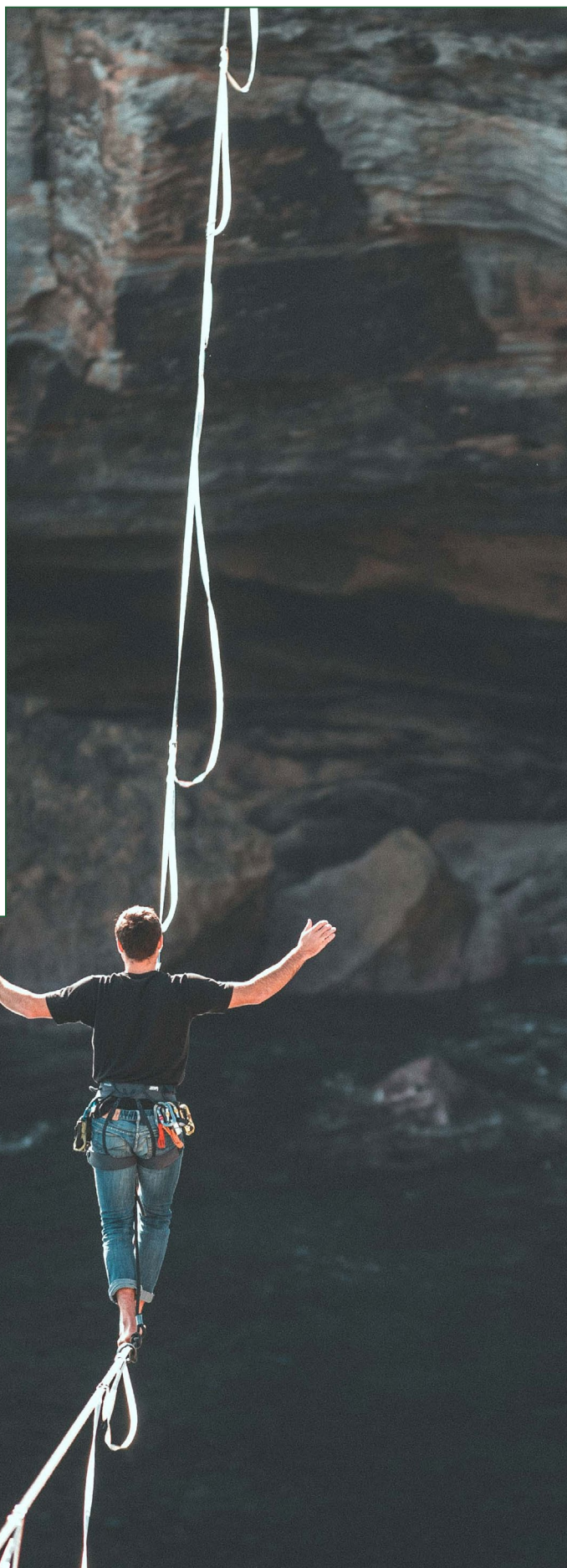
Based on the institutional risk appetite statement, you will choose the risk level (low, medium, high or extreme) that the university wants to achieve in the long-term for each risk identified in step 2. To determine the appropriate level, you can rate the likelihood, consequence, vulnerability and velocity the university is willing to accept.

C) Risk Target

Understanding that it may take time to achieve the risk appetite identified in B) above, you will identify one and three year risk level (low, medium, high or extreme) targets that the university wants to achieve for each risk identified in step 2. If the risk appetite will be achieved prior to the target time horizon, you will state "Not applicable". To determine the appropriate level, you can rate the likelihood, consequence, vulnerability and velocity the university is willing to accept within one and three years.

D) Current Residual Risk Level

You will calculate the current residual risk score and level for each risk identified in step 2 based on the university's current environment.



4. RISK EVALUATION

Risk evaluation is performed to support decisions by comparing the current residual risk level with the risk appetite to determine where additional action is required. You will be making one of the following decisions:

- a. Retain and monitor the risk (accept the risk and do not implement further risk treatments)
- b. Treat the risk (optimize, transfer or avoid)
- c. Undertake further analysis to better understand the risk
- d. Reconsider the scope, context and criteria

You will record the outcome of your risk evaluation, communicate, and then validate it with the appropriate levels within the university. Utilizing the [roles and responsibilities](#) outlined in this Framework will guide you on the appropriate levels given the risk situation and potential outcomes.

5. RISK TREATMENT

If you chose to treat the risk in step 4 above, you will need to select and implement options for addressing the risk. Risk treatment involves an iterative process of the following:

- a. Formulating and selecting risk treatment options
- b. Planning and implementing risk treatment
- c. Assessing the effectiveness of that treatment
- d. Deciding whether the remaining risk is acceptable
- e. If not acceptable, take further treatment

The following are the steps that you will take to implement the appropriate treatment option:

A) Selection of risk treatment options

Selecting the most appropriate risk treatment option(s) involves balancing the potential benefits derived in relation to the achievement of the objectives against costs, effort or disadvantages of implementation.

There are times that in performing the assessment it does not make sense to treat the risk, at any time during the risk assessment you may choose to take or increase the risk in order to pursue an opportunity.

Options for treating risk may involve one or more of the following:

- a. **Optimize** (mitigate) the risk by minimizing the negative and maximizing the positive consequences and their respective probabilities. For example, implementing additional risk mitigation strategies (e.g. controls, policies, etc.) to prevent and/or respond to the risk.
- b. **Transfer** (share) the risk with an external party that will share the burden of loss or benefit of gain (e.g. contracts, purchasing insurance).
- c. **Avoid** (eliminate) the risk by deciding not to start or continue with the activity that gives rise to the risk.

The selection of risk treatment options should be made in accordance with the university's objectives, risk criteria, risk appetite and available resources. It is important that you consider the perceptions and potential involvement of stakeholders and the most appropriate ways to communicate and consult with them.

You will need to monitor and review the risk treatment implementations to ensure they are performing as intended. Risk treatment can also introduce new risks to be managed.

If you are not able to find an available risk treatment option or if the treatment options do not sufficiently modify the risk, consult with the ERM department for additional advice. It is important to inform decision makers and other stakeholders of the nature and extent of the remaining risk after risk treatment. You will document it in the risk assessment and escalate per the [roles and responsibilities](#) outlined in this Framework. Continue to monitor and review the risk treatment.

B) Preparing and implementing risk treatment plans

Risk treatment plans need to be specific and should include the following information:

- The rationale for selection of the treatment options, including the expected benefits to be gained
- Those who are accountable and responsible for approving and implementing the plan
- The proposed actions
- The resources required, including contingencies
- The performance measures
- The constraints
- The required reporting and monitoring
- When actions are expected to be undertaken and completed

The risk treatment plans should be integrated into the priorities and processes of the university, in consultation with appropriate stakeholders.

6. COMMUNICATION AND CONSULTATION

Throughout the risk assessment, we recommend that you communicate and consult with relevant stakeholders to understand the risks, the basis on which decisions are made and the reasons why you chose the risk treatment and implemented plans, if applicable. It is important to communicate to promote awareness of the risk and ensure consultation to receive feedback and information to support your decision making. Close coordination between the two should facilitate factual, timely, relevant, accurate and understandable exchange of information, taking into account privacy and confidentiality requirements.

7. MONITORING AND REVIEW

Recording and reporting of risks supports all steps of the ERM processes and assists the university in effectively and efficiently managing risks to an acceptable level. Reporting is the mechanism by which the risks that are identified, assessed, monitored and reviewed, communicated and consulted are recorded, discussed and reviewed. It supports risk oversight, decision making and sharing of important risk information across the institution.

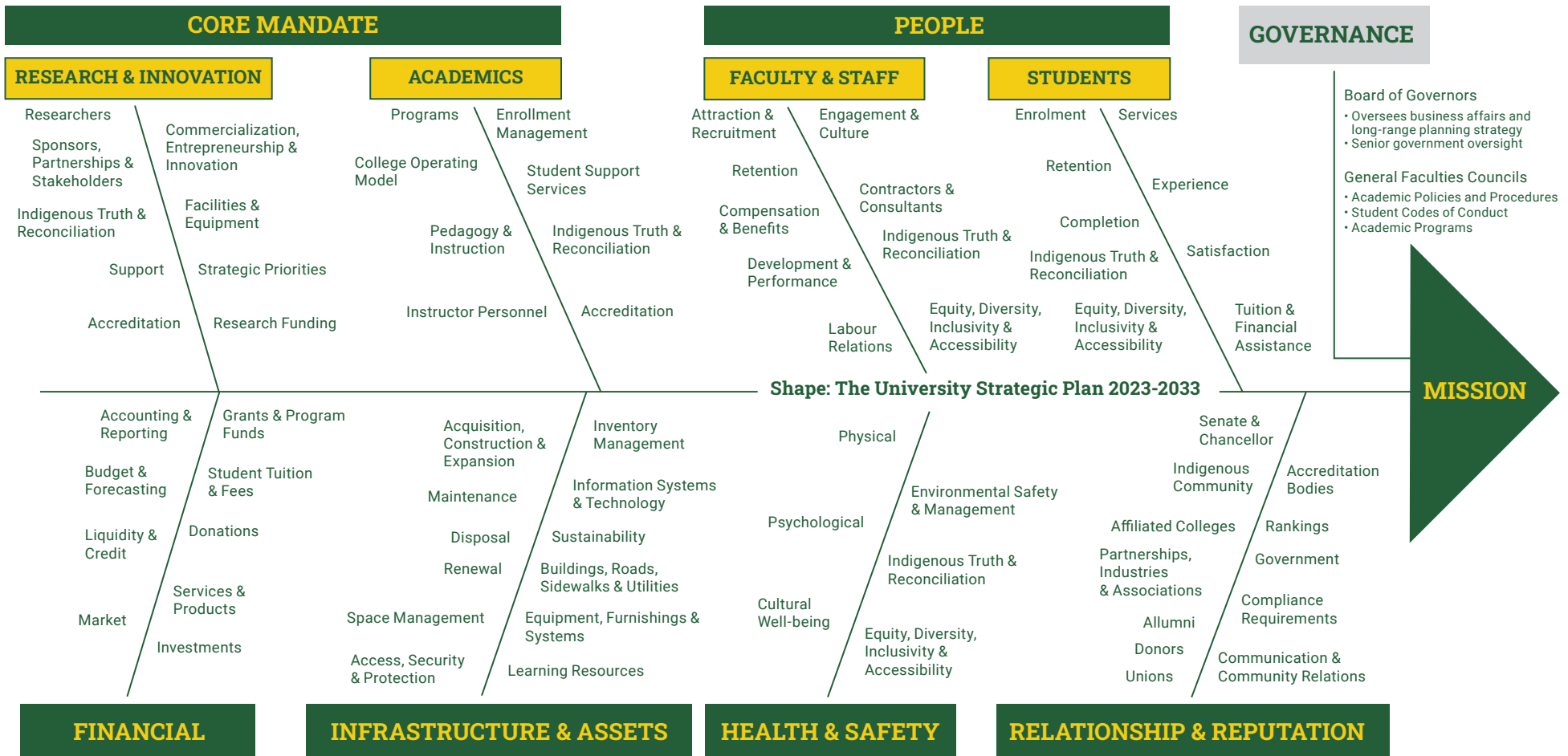
The risk assessment spreadsheet should be utilized to document the above process and you should follow the [roles and responsibilities](#) outlined in this Framework once it is documented and as required. It is recommended to share with your ERMC member when you have performed a risk assessment so that they can provide awareness to the ERM department and share the knowledge with the rest of the membership.

8. RECORDING AND REPORTING

The purpose of monitoring and reviewing your risk assessment is to ensure that the risk treatment plans are working effectively, validate there has not been a change in the context and provide assurance up the governance structure to meet the university's risk appetite.

APPENDIX C

RISK CATEGORIES



APPENDIX D

RISK ASSESSMENT TOOLS

The university calculates the risk score using the following formula:

$$(Likelihood + Consequence) \times (Vulnerability + Velocity) = Risk Score$$

1. LIKELIHOOD

A rating of 1 to 5 is chosen based on the chance of an event happening, which can be assessed in terms of the probability of an event occurring or the frequency at which the event may occur.

RATING	DESCRIPTION	FREQUENCY	PROBABILITY
5 Frequent / Almost Certain	Almost certain or extremely likely that an event will occur or has frequently happened	Occurs more than once per year (e.g. daily, weekly, monthly, quarterly)	90-100%
4 Likely	Likely that an event will occur or has regularly happened	Occurs at least once per year (e.g. annual)	65-89%
3 Possible	Possible that an event will occur or has happened a few times	Occurs at least once every 5 years (e.g. 1 - 5 years)	35-64%
2 Unlikely	Unlikely that an event will occur or has only happened once or twice	Occurs at least once in 10 years (e.g. 5 - 10 years)	10-34%
1 Rare	Conceivable but extremely unlikely or rare that an event will occur, has not happened in the past	Occurs less than once in 10 years	Less than 10%

2. CONSEQUENCE

A rating of 1 to 5 is chosen based on assessing the potential consequences that the university may incur. To assist you, guidance is provided below by risk category outlining the general areas of consideration and specific guidance on each rating.

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
Core Mandate - Education				
<ul style="list-style-type: none"> Ability to continue delivering education Accreditation and quality of the education 		<ul style="list-style-type: none"> Growth opportunities (e.g. work-integrated learning, micro credentialing) Compliance with policies and procedures 		
<ul style="list-style-type: none"> Isolated situation/incident that impacts the university for one day or less, trivial and can be managed with existing university resources (e.g. a small number of classes cannot be delivered for one day or less). Enhancements at the course level that is long lasting and/or any other level that is short term having a positive transformational impact. Accreditation and licensing is delayed for programs within the university for a short period of time due to requests for additional 	<p>Situation/incident that impacts:</p> <ul style="list-style-type: none"> One or more programs cannot deliver education for one week or less. Many classes cannot be delivered for a couple of weeks. Managed using existing university resources. Enhancement at the program level that has a long lasting, positive transformational impact. Accreditation and licensing is not attained for programs within the university due to minor deficiencies easily addressed with existing resources. The university may be put on probation until the deficiencies are addressed. 	<p>Situation/incident that impacts:</p> <ul style="list-style-type: none"> One or more faculties cannot deliver education for one week or less. May require external and/or additional university resources to assist in management of the situation. Enhancement at the faculty level that has a long lasting, positive transformational impact. Accreditation and licensing review indicates moderate deficiencies. The university is put on probation while the deficiencies are addressed or the accreditation is given at a lower level. 	<p>Situation/incident that impacts:</p> <ul style="list-style-type: none"> All educational areas/ departments in the university that is not trivial but can be managed with some accommodations for a few days and allow the term to be academically salvaged. One third of programs or less and only one campus impacted. Many faculties cannot deliver education for a couple of weeks. May require external and/or additional university resources to assist in management of the situation. Enhancement at the college level having a long lasting, positive transformational impact. 	<p>Situation/incident that impacts:</p> <ul style="list-style-type: none"> The entire university's ability to deliver education that is not trivial and cannot be managed (e.g. inability to deliver education to students for 2 weeks). A few faculties cannot deliver education for a couple of weeks. The majority of programs cannot be delivered for a couple of weeks/a duration that exceeds the ability for the term to be salvaged academically. May require external and/or additional university resources to assist in management of the situation. University is unable to attract or retain students.

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
<p>information / detail by the accrediting / licensing body that are easily addressed.</p>			<ul style="list-style-type: none"> ● Accreditation and licensing is not attained for programs within the university due to significant deficiencies that require additional resources to correct. The university is put on probation and given a limited period of time to address the deficiencies; failure to do so will preclude the university from awarding credentials or enrolling students. 	<ul style="list-style-type: none"> ● Enhancement that is institution wide having a long lasting, positive transformational impact. ● Accreditation and licensing is lost for programs within the university precluding them from awarding credentials or enrolling students.

Core Mandate - Research

- Ability to continue performing research
- Completion of research projects and meeting targets
- Impact on Alberta, Canada and the world (e.g. addressing major social, economic and environmental challenges)
- Accreditation and quality of research and innovation
- Spinoff and other commercialization activities
- Research capacity and growth
- Compliance with policies and procedures

<ul style="list-style-type: none"> ● Isolated situation/ incident that impacts the university's research activity for one day or less that can be managed/ recovered with existing university resources and does not impact the completion and/or targets. 	<ul style="list-style-type: none"> ● Situation/incident that impacts the university's research activity for a short period of time (e.g. 1 week) that can be managed/recovered with existing university resources. ● Little to no impact on the overall research activity completion and/or targets. 	<ul style="list-style-type: none"> ● Situation/incident that impacts the university's research activity and/or targets for a moderate period of time (e.g. couple of weeks) that is recoverable. ● May require external and/or additional university resources to assist in management of the situation. ● May impact key research indicators. 	<ul style="list-style-type: none"> ● Situation/incident that impacts the university's research activity and/ or targets for a major period of time (e.g. months) that may be recoverable with significant efforts. ● May require external and/or additional university resources to assist in management of the situation. ● Potential loss of ownership of intellectual property. 	<ul style="list-style-type: none"> ● Situation/incident that impacts all university's research activities and/ or targets that cannot be managed and may not be recoverable in the short term. ● May require external and/or additional university resources to assist in management of the situation. ● Loss of ownership of intellectual property.
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1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
<ul style="list-style-type: none"> Isolated accolade, complaint or dissatisfaction from a research sponsor, partner or stakeholder. 	<ul style="list-style-type: none"> Accolades, complaints or dissatisfaction from a research sponsors, partners or stakeholders in a particular research project (e.g. one research project is delayed but it can be completed). 	<ul style="list-style-type: none"> Accolades, complaints or dissatisfaction from a research sponsor, partners and stakeholders. 	<ul style="list-style-type: none"> Impacts key research indicators (positive or negative). Accolades, complaints or dissatisfaction from a research sponsor, partners and stakeholders. 	<ul style="list-style-type: none"> Impacts key research indicators (positive or negative). Significant accolades, complaints or dissatisfaction in all areas of the university's research activities.
People - Students				
<ul style="list-style-type: none"> Student enrolment, retention and completion (e.g. undergraduate, graduate, international, domestic) Student satisfaction Compliance with policies and procedures 				
<ul style="list-style-type: none"> Negligible impact on student enrolment, retainment and completion. Isolated accolade, complaint or dissatisfaction from a student. 	<ul style="list-style-type: none"> Accolades, complaints or dissatisfaction from multiple students and/or students in a particular program. 	<ul style="list-style-type: none"> Student enrolment, retention and completion key indicators have an impact that is one school year or less but does not jeopardize the ability of the institution to meet its investment management targets. Accolades, complaints or dissatisfaction from students in more than one program or an entire faculty. 	<ul style="list-style-type: none"> Student enrolment, retention and completion key indicators have an impact that is more than one school year (may be a trend) and/or could impact the ability of the institution to meet its investment management agreement targets. Accolades, complaints or dissatisfaction from students in more than one faculty or an entire college. 	<ul style="list-style-type: none"> Student enrolment, retention and completion key indicators have an impact that is long term (including a long term trend) and/or impacts the ability of the institution to meet its investment management agreement targets. Students across the institution have significant accolades, complaints or dissatisfaction. University is unable to attract or retain students.

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
People - Faculty & Staff				
<ul style="list-style-type: none"> Attraction of faculty and staff Engagement, retention, turnover and compensation of faculty and staff Morale and culture of the faculty and staff Information sharing, cooperation and trust by faculty and staff 		<ul style="list-style-type: none"> Productivity, performance, alignment of talent and skill set required, and attendance (e.g. absenteeism) of faculty and staff Compliance with policies and procedures <p>Consideration should be made on the impact to specialized areas, hard to recruit/competitive roles, leadership and executive.</p>		
Isolated event/situation that has none to minimal short-term impact on the university's core mandate and operations. It is not noticeable.	A few events/situations with individuals or an event/situation related to one particular area/department that has none to minimal short-term impact on the university's core mandate and operations. It is noticeable to the area/department impacted.	A few events/situations with individuals or an event/situation related to one particular area/department that have a moderate impact on the university's core mandate and operations. It is noticeable to the areas/departments impacted.	Multiple areas/departments that have a major impact on the university's core mandate and operations. It is noticeable to the institution.	Pervasive across the institution and the university is not able to carry out its core mandate and operations. It is noticeable and impacts the entire institution.
Financial				
<ul style="list-style-type: none"> Relative dollar value of the opportunity to generate additional financial resources Relative dollar value of the loss of financial resources Overall impact to the university 		<ul style="list-style-type: none"> Financial sustainability (short and long-term) Compliance with policies and procedures 		
Increased funding or a loss less than 0.5% of the budget (e.g. operational, capital, project). ⁵	Increased funding or a loss from 0.5% up to 1% of the budget. ⁵	Increased funding or a loss from 1% up to 5% of the budget. ⁵	Increased funding or a loss from 5% up to 10% of the budget. ⁵	Increased funding or a loss greater than 10% of the budget. ⁵

⁵Contact your Finance Partner for further details on the applicable operating budget.

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
Health & Safety				
<ul style="list-style-type: none"> Physical, psychological and cultural safety Fatalities, injuries, illness, incidents and/or damages Intervention or medical treatment required 		<ul style="list-style-type: none"> Ability and time to mitigate consequences Resources required Compliance with policies and procedures 		
<ul style="list-style-type: none"> Near miss or insignificant injury or illness that does not require treatment. Near miss or insignificant environmental damage that does not require intervention. 	<ul style="list-style-type: none"> Minor injury or illness that requires treatment (e.g first aid, mental health supports) with university resources. Minor environmental damage that can be reversed with university resources. Minor positive increase in health, safety and well-being. Minor decrease in the university's environmental impact (positive). 	<ul style="list-style-type: none"> Moderate reportable injury or illness to a few individuals requiring intervention and/or treatment that is short-term, temporary, and consequences can be mitigated. Minor reportable injury or illness to more than a few individuals requiring first aid treatment with university resources or first responders. Moderate environmental damage that requires external resources to mitigate it in a short time frame. Moderate positive increase in health, safety and well-being. Moderate decrease in the university's environmental impact (positive). 	<ul style="list-style-type: none"> Reportable injury or illness to a few individuals requiring hospitalization, long-term or permanent functional restriction. Moderate reportable injury or illness to more than a few individuals requiring intervention and/or treatment that is short-term, temporary, and consequences can be mitigated. Environmental damage that requires significant external resources and time to mitigate it. Major positive increase in health, safety and well-being. Major decrease in the university's environmental impact (positive). 	<ul style="list-style-type: none"> Reportable injury or illness resulting in one or more fatalities. Major reportable injury or illness to more than a few individuals requiring hospitalization, long-term and/or permanent functional restriction. Irreversible environmental damage. Wide spread positive increase in health, safety and well-being. Widespread decrease in the university's environmental impact (positive).

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
Infrastructure & Assets				
<ul style="list-style-type: none"> State, reliability, age, maintenance, resources required and support available Availability of the infrastructure and assets (including disruptions, outages, break downs, failures, etc.) Criticality of the infrastructure and assets 			<ul style="list-style-type: none"> Impact to the university’s activities and core mandate Compliance with policies and procedures 	
<ul style="list-style-type: none"> Trivial issue⁶/ enhancement⁷ with infrastructure and/ or assets that are not long-term and do not impact the university’s activities. Response to the issue/enhancement can be performed immediately with university resources and low cost (see Financial). 	<ul style="list-style-type: none"> Issue/enhancement with infrastructure and/or assets that have a minor impact on the university’s activities that can be managed. Response to the issue/enhancement can be performed within a day and minor cost (see Financial). Enhancement to a non-critical infrastructure⁸ and/or assets that have a one time, short, positive impact to the university’s activities. 	<ul style="list-style-type: none"> Issue/enhancement with infrastructure and/ or assets that has a moderate impact on the university’s activities (e.g. 1-3 days) and does not impact the core mandate. Response to the issue/enhancement can be performed within a few days and moderate cost (see Financial). Enhancement to a non-critical infrastructure and/or assets that positively impacts the university’s activities on a longer term basis. 	<ul style="list-style-type: none"> Issue with infrastructure and/or assets that impacts the core mandate, has a major impact on the university’s activities (e.g. 3 days to 1 week) and can be managed. Response to the issue/enhancement can be performed within a week and major cost (see Financial). Enhancement to a critical infrastructure⁹ and/or assets that have a short term positive impact on the university’s activities and core mandate. 	<ul style="list-style-type: none"> Issue with infrastructure and/or assets that impacts the core mandate, has an extreme impact on the university’s activities (e.g. more than 1 week) and cannot be managed. Response to the issue/enhancement will require more than one week and has an extreme cost (see Financial). Infrastructure and/or assets may not be recoverable and require replacement. Enhancement to a critical infrastructure and/or assets that has a long term, positive impact on the university’s activities and core mandate.

⁶Issue - a problem or difficulty with the university’s infrastructure and/or assets (e.g. disruption, program/research equipment failure, base building system failure, cyber attack).

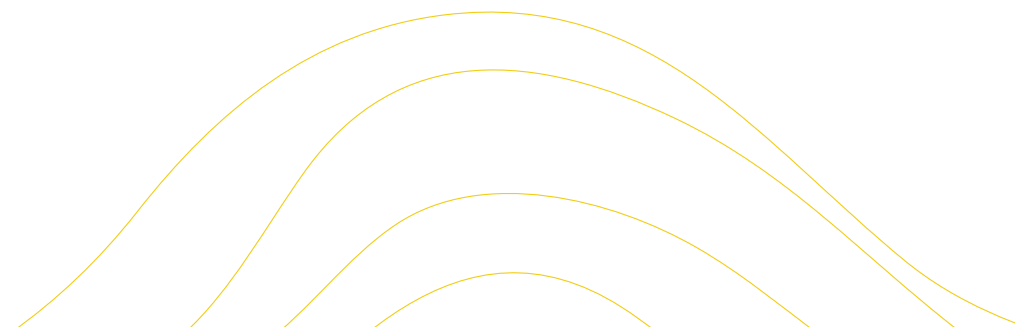
⁷Enhancement - a change that is intended to improve the infrastructure and assets (e.g. performance, quality, longevity, use).

⁸Non-critical infrastructure and assets - Infrastructure and assets that are not considered essential for the university to continue its activities and deliver on its core mandate. For example, a partial failure of an infrastructure or asset that can be easily mitigated and does not require the building to be shut down for repairs.

⁹Critical infrastructure and assets - infrastructure and assets, whether physical or virtual, that are considered essential for the university to continue its activities and deliver on its core mandate efficiently, effectively and safely. For example, the fire and life safety systems, building management systems, and servers.

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
Relationships & Reputation				
<ul style="list-style-type: none"> ● Relationships with external communities, groups and audiences (e.g. geographical community, government, alumni, donors, general public) ● Effectivity of external and targeted communications, marketing, digital strategies and channels ● Perception, reputation and brand health with partners, target audiences and general public ● Industry public standards and rankings ● Compliance with legislative and contractual requirements, policies and procedures ● Governance and accountabilities ● Resources required 				
<ul style="list-style-type: none"> ● Trivial public or private attention from external sources affiliated or unaffiliated with the university. ● University relationships and partnerships unaffected. ● Isolated and/ or unsustained incident/event. ● Does not impact university operations or require additional external relations resources to mitigate. ● No impact on brand health, overall university sentiment or university rankings. ● Trivial impacts to communications tools, tactics and/or channels. 	<ul style="list-style-type: none"> ● Trivial public or private attention from influential groups, organizations, audiences or university affiliated partners or community groups. ● University relationships and partnerships unaffected. ● Incident/event anticipated to resolve within days. ● Negligible impact to university operations or requires some additional external relations resources to mitigate. ● Negligible impact to brand health, overall university sentiment or university rankings. ● Temporary impacts to communications tool(s), tactic(s) and/or channel(s). 	<ul style="list-style-type: none"> ● Some public or private attention from influential groups, organizations, audiences; target audiences; or university affiliated partners or community groups. ● University relationships and partnerships involved, limited in scope by area, department, unit, volume. ● Incident/event anticipated to resolve. ● Some impact to university operations or requires some additional external relations resources to mitigate. ● Possible impact to brand health, overall university sentiment or university rankings. ● Impacts to communications tool(s), tactic(s) and/or channel(s). 	<ul style="list-style-type: none"> ● Ongoing or growing public or private attention from influential groups, organizations, audiences; target audiences; or university affiliated partners or community groups. ● Multiple relationships and partnerships impacted, relationship management coordination required across units/university. ● Incident(s)/event(s) without or with unpredictable timeline. ● Impacts to university operations and/or requires additional external relations resources to mitigate. ● Various impacts to brand health, overall university sentiment or university rankings. 	<ul style="list-style-type: none"> ● Ongoing, growing or prolonged public and private attention from influential groups, organizations, audiences; target audiences; or affiliated partners or community groups. ● Catastrophic impacts to significant university relationships, partnerships, funding security, relationship management coordination required across units/university. ● Incident(s)/event(s) with prolonged or unpredictable timeline. ● Major impacts to brand health, overall university sentiment, or university rankings. ● Impacts university operations and requires additional external relations resources to mitigate.

1 - INCIDENTAL	2 - MINOR	3 - MODERATE	4 - MAJOR	5 - EXTREME
<ul style="list-style-type: none"> ● Possible trivial violation of compliance requirements. ● No investigation, fines and penalties, third party action, lawsuit and/or liability. 	<ul style="list-style-type: none"> ● Possible violation of compliance requirements. ● Investigation, fines and penalties, third party action, lawsuit and/or liability unlikely (see Financial). ● Minor corrective actions / recommendations from external parties. 	<ul style="list-style-type: none"> ● Violation of compliance requirements. ● Possible investigation, fines and penalties, third party action, lawsuit and/or limited liability (see Financial). ● Corrective actions / recommendations from external parties that can be implemented in a short time frame. 	<ul style="list-style-type: none"> ● Impacts to significant communications activities, tool(s) and/or channel(s) with unpredictable timeline or without known conclusion. ● Violation of compliance requirements (including repeated violations). ● Investigation, fines and penalties, lawsuit, third party action and/or liability likely (see Financial). ● Corrective actions / recommendations from external parties that will require external resources and time to implement (could include probation or worse). 	<ul style="list-style-type: none"> ● Significant and various impacts to brand health, overall university sentiment or university rankings. ● Catastrophic impacts to significant communications activities, tool(s) and/or channel(s) with unpredictable timeline or without known conclusion. ● Violation of compliance requirements (including multiple violations and/or long-term). ● Investigation, fines and penalties, lawsuit, third party action and/or liability are certain (see Financial). ● Corrective actions / recommendations from external parties that will require extensive external resources and time to implement. ● Possible ministerial involvement.



3. VULNERABILITY

A rating of 1 to 5 is chosen based on how susceptible the university is if an event occurred or has happened. This includes how prepared, agile and adaptable the university is to respond to an event.

RATING	DESCRIPTION
5 Very High	<ul style="list-style-type: none"> No scenario planning performed. Lack of institutional level/process level capabilities to address risks. Responses not implemented. No contingency or crisis management plans in place.
4 High	<ul style="list-style-type: none"> Scenario planning for top institutional risks performed. Low enterprise level/process level capabilities to address risks. Responses partially implemented or not achieving control objectives. Some contingency or crisis management plans in place.
3 Medium	<ul style="list-style-type: none"> Stress testing and sensitivity analysis of scenarios performed. Medium institutional level/process level capabilities to address risks. Responses implemented and achieving objectives most of the time. Most contingency and crisis management plans in place, limited rehearsals.
2 Low	<ul style="list-style-type: none"> Strategic options defined. Medium to high institutional level/process level capabilities to address risks. Responses implemented and achieving objectives except under extreme conditions. Contingency and crisis management plans in place, some rehearsals.
1 Very Low	<ul style="list-style-type: none"> Real options deployed to maximize strategic flexibility. High institutional level/process level capabilities to address risks. Redundant response mechanisms in place and regularly tested for critical risks. Contingency and crisis management plans in place and rehearsed regularly.

4. VELOCITY

A rating of 1 to 5 is chosen based on how fast an event may affect the university.

RATING	DESCRIPTION
5 Very High	Very rapid onset, little or no warning, instantaneous
4 High	Onset occurs in a matter of days to a few weeks
3 Medium	Onset occurs in a matter of a few months
2 Low	Onset occurs in a matter of several months
1 Very Low	Very slow onset, occurs over a year or more



Enterprise Risk Management Framework

December 2023

Managing Risk at the U of A:
Leading with purpose to make
a lasting, positive impact

Enterprise Risk Management

[Internal Audit & Enterprise
Risk Management](#)

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