

# STAT401: Course Summary

**Course:** STAT401 Probability and Statistical Inference

**Term:** 2022 W2

**Mode of Delivery:** In-person

**Level:** Bachelor's degree level standards

## Course Learning Outcomes

#	Course Learning Outcome
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1	<b>Ability to extend</b>
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The students will build upon probability concepts and extend them to statistical problems.

2	<b>Ability to employ</b>
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The students will demonstrate the ability to employ new techniques to explore data.

## Student Assessment Methods

#	Student Assessment Method	Weight
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1	Assignments	20%
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2	Mid-term Exam	20%
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3	Project presentation	10%
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4	Project report	10%
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5	Final Exam	35%
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6	Group discussion	5%
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Total		100%
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## Teaching and Learning Activities

#	Teaching and Learning Activity
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1	Distributions
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2	Independence
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3	Point estimation
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4	Confidence interval
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## Course Alignment

#	Course Learning Outcome	Student Assessment Method	Teaching and Learning Activity
1	The students will build upon probability concepts and extend them to statistical problems.	Project presentation Project report Final Exam Group discussion	Confidence interval Hypothesis test
2	The students will demonstrate the ability to employ new techniques to explore data.	Assignments Mid-term Exam Final Exam Group discussion	Distributions Independence Point estimation

This course does not belong to any programs yet.

## Ministry Standards Outcome Maps

### Standards

This table shows the alignment of ministry standards to this course.

#	Standards
1	<b>Depth and Breadth of Knowledge</b> Basic understanding of the range of fields within the discipline/field. Ability to gather, review, evaluate and interpret information, including new information relevant to the discipline. Capacity to engage in independent research or practice in a supervised context. Critical thinking/analytical skills. Ability to apply learning from one or more areas outside the discipline.
2	<b>Knowledge of Methodologies and Research</b> Evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques. Devise and sustain arguments or solve problems using these methods. Describe and comment upon particular aspects of current research or equivalent advanced scholarship in the discipline.
3	<b>Communications Skills</b> Ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing, to a range of audiences. Use structured and coherent arguments.
4	<b>Application of Knowledge</b> Ability to review, present and critically evaluate qualitative and quantitative information to develop an argument, make sound judgement, apply concept, or use this knowledge in the creative process.
5	<b>Awareness of Limits of Knowledge</b> Understanding of the limits to their own knowledge and ability. Appreciation of the uncertainty, ambiguity and limits to knowledge and how this might influence analyses and interpretations.




## 6 Professional Capacity/Autonomy

Initiative, personal responsibility and accountability in both personal and group contexts. Working effectively with others. <b>Behavior consistent with academic integrity</b>.

### Standards Mapping Scale

The mapping scale indicates the degree to which a ministry standard is addressed by a course learning outcome.

#### Mapping Scale

 Introduced (I)	Key ideas, concepts or skills related to the learning outcome are demonstrated at an introductory level. Learning activities focus on basic knowledge, skills, and/or competencies and entry-level complexity.
 Developing (D)	Learning outcome is reinforced with feedback; students demonstrate the outcome at an increasing level of proficiency. Learning activities concentrate on enhancing and strengthening existing knowledge and skills as well as expanding complexity.
 Advanced (A)	Students demonstrate the learning outcomes with a high level of independence, expertise and sophistication expected upon graduation. Learning activities focus on and integrate the use of content or skills in multiple.

### Ministry Standards Map: Bachelor's degree level standards

This chart shows the alignment of ministry standards to this course.

#### Ministry Standards

1. Depth and Breadth of Knowledge	2. Knowledge of Methodologies and Research	3. Communications Skills	4. Application of Knowledge	5. Awareness of Limits of Knowledge	6. Professional Capacity/Autonomy
I	D	D	D	I	I

### Optional Alignment to UBC and Ministry Standards

This course has not aligned with any UBC and Ministry Priorities.