

# Statistical Theory Minor

## Prepare Students for Graduate Study

**Goal Description:**

By taking STAT 4371 and STAT 4372 students have the ability to pursue for graduate study in Statistics.

We did prepare students for our graduate program.

Yes some students from undergraduate here at SHSU applied graduate program in Statistics at SHSU

**Providing Department:** Statistical Theory Minor

**Progress:** Completed

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Students must take sequence of two semesters courses in Probability and Statistics**

**Learning Objective Description:**

In this minor students must take sequence of two semester courses. .Here is the difference with Statistics Minor.

This has been done for stat 4371 and then stat 4372.

For statistical theory students has finished it last semester.

RELATED ITEM LEVEL 2

**Independent Study STAT 4090**

**Indicator Description:**

This independent study can be repeated more than once since the subject matters are different, for example Categorical Data Analysis, Survival model , and Biostatistics. Also if we do not have enough students to take a course on a regular semester, we offer students as independent study.

In independent study students will be more engage and more creative.

**Criterion Description:**

At the end of the semester usually students write and submit project besides homework submitted during semester.

**Findings Description:**

Similar to stat minor, students gained individual knowledge by taking this course.

It was done for this course last semester. Student engaged with in individual faculty.

RELATED ITEM LEVEL 3

**Independent Study STAT 4090**

**Action Description:**

Students who took independent study last year engage with individual faculty.

They learnt more statistical knowledge by applying the concept, application with the help of software.

RELATED ITEM LEVEL 2

**Student minor in Statistics Theory has to take 18 credit hours**

**Indicator Description:**

Student must take Probability and Statistics 1 and 2 and then takes 12 more credit from Experimental Design, Linear Regression, Survey Sampling, Applied Bayesian, Times Series, Quality Control, Statistical Learning, Software Data Analysis, and statistical Methods in Practice.

**Criterion Description:**

Students minoring in statistical theory should take 18 hours of upper-division statistics courses.

**Findings Description:**

All students in minoring in statistical theory have taken the sequence of STAT 4371 and STAT 4372.

RELATED ITEM LEVEL 3

**Student minor in statistics Methods has to take 18 credit hours**

**Action Description:**

Students whose minor did took 18 credit hours to satisfy their requirement minor in Statistics.

## To facilitate students with enough theoretical statistical knowledge in addition to applied statistical data skills.

**Goal Description:**

The main objective of the undergraduate minor in Statistics Theory is to facilitate students with adequate theoretical knowledge of the subject area in addition to the quantitative skills typically required for statistical data analysis. Students are also expected to gain the theoretical foundation that is required for graduate degrees in related areas.

With Stat 4371 and stat 4372 taught on a regular semester, students prepared the theoretical background in statistics.

**Providing Department:** Statistical Theory Minor

**Progress:** Completed

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

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RELATED ITEM LEVEL 3

**Student minor in statistics Methods has to take 18 credit hours**

**Action Description:**

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**Similar approach with previous year**

**Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

**Closing Summary**

We need to continue recruit students so they can take courses mention in this plan.

**Update of Progress to the Previous Cycle's PCI:**

For next year with still the same book, instructor will still show how to prove theoretical theorem, lemma, and problem solving in class.

**New Strategy for next year**

**Closing Summary:**

We have taught 18 credit hours to students minoring in statistics both as face-to-face or as independent study.

We would like all students took the courses as face-to-face to gain more knowledge from instructors.

We would continue improve the style of teaching for all courses so students will be very comfortable taking all classes.