

<b>ORIGINATOR'S SECTION:</b>														
<b>1. College:</b> <input type="checkbox"/> CHABSS <input type="checkbox"/> CoBA <input type="checkbox"/> CoEHHS <input checked="" type="checkbox"/> CSM	<b>Desired Term and Year of Implementation (e.g., Fall 2008):</b>  Spring 2017													
<b>2. Course is to be considered for G.E.? (If yes, also fill out appropriate GE form*)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No														
<b>3. Course will be a variable-topics (generic) course?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ("generic" is a placeholder for topics)														
<b>4. Course abbreviation and Number:*</b> Math 142														
<b>5. Title: (Titles using jargon, slang, copyrighted names, trade names, or any non-essential punctuation may not be used.)</b> Basic Statistics														
<b>6. Abbreviated Title for PeopleSoft:</b> (no more than 25 characters, including spaces) Basic Statistics														
<b>7. Number of Units:</b> 3														
<b>8. Catalog Description: (Not to exceed 80 words; language should conform to catalog copy. Please consult the catalog for models of style and format; include all necessary information regarding consent for enrollment, pre- and/or corequisites, repeated enrollment, crosslisting, as detailed below. Such information does <u>not</u> count toward the 80-word limit.)</b>  <div style="text-align: center; color: blue; font-weight: bold;">Covers</div> <p>Topics include types of data; descriptive statistics; types of studies; probability and sampling distributions; statistical inference; correlation and linear regression; chi-square, t-tests, and F-test; interpretation of the relevance of the statistical findings. <del>Course might include the application of technology for statistical analysis. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education. Enrollment restricted to students who completed the entry-level mathematics requirement (ELM).</del></p>														
<b>9. Why is this course being proposed?</b>  <p>The Department of Mathematics currently offers two lower division statics courses, <i>Math 200 Mathematical Statistics for Nursing</i> and <i>Math 242 Introduction to Statistics</i>. Both of these courses were created for a special audience. Math 200 was designed for Pre-Nursing students and includes topics to satisfy the B4 General Education requirement. Math 242 was originally designed with a different title for Computer Science students and is now also required by Economics. Math 242 contains a considerable amount of probability theory, including topics like random variables, counting principles, and conditional probability. About 2 years ago the Department of Mathematics was approached by Dr. Moineau about a statistics course for the MA in Speech-Language Pathology. In the first year the students from Speech-Language Pathology took Math 200, then we offered Math 242 for these students. Both courses don't seem to be a good fit, because the Speech-Language Pathology students are neither in need of satisfying a B4 requirement, nor do they need an extensive background in probability theory. For this reason the Department of Mathematics likes to propose this new generic statistics course without a specific target audience. Currently we would only offer the course for the MA in Speech-Language Pathology.</p>														
<b>10. Mode of Instruction*</b> <i>For definitions of the Course Classification Numbers: <a href="http://www.csusm.edu/academic_programs/curricular_umscheduling/catalogcurricula/DOCUMENTS/Curricular_Forms_Tab/Instructional%20Mode%20Conventions.pdf">http://www.csusm.edu/academic_programs/curricular_umscheduling/catalogcurricula/DOCUMENTS/Curricular_Forms_Tab/Instructional%20Mode%20Conventions.pdf</a></i>														
		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:33%;">Type of Instruction</th> <th style="width:33%;">Number of Credit Units</th> <th style="width:33%;">Instructional Mode (Course Classification Number)</th> </tr> </thead> <tbody> <tr> <td>Lecture</td> <td style="text-align: center;">3</td> <td style="text-align: center;">C2</td> </tr> <tr> <td>Activity</td> <td></td> <td></td> </tr> <tr> <td>Lab</td> <td></td> <td></td> </tr> </tbody> </table>	Type of Instruction	Number of Credit Units	Instructional Mode (Course Classification Number)	Lecture	3	C2	Activity			Lab		
Type of Instruction	Number of Credit Units	Instructional Mode (Course Classification Number)												
Lecture	3	C2												
Activity														
Lab														
<b>11. Grading Method:*</b> <input checked="" type="checkbox"/> Normal (N) (Allows Letter Grade +/-, and Credit/No Credit) <input type="checkbox"/> Normal Plus Report-in-Progress (NP) (Allows Letter Grade +/-, Credit/No Credit, and Report-in-Progress) <input type="checkbox"/> Credit/No Credit Only (C) <input type="checkbox"/> Credit/No Credit or Report-in-Progress Only (CP)														
<b>12. If the (NP) or (CP) grading system was selected, please explain the need for this grade option.</b>														
<b>13. Course Requires Consent for Enrollment?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No														

\* If Originator is uncertain of this entry, please consult with Program Department Director/Chair.

Faculty  Credential Analyst  Dean  Program/Department - Director/Chair

14. Course Can be Taken for Credit More than Once?  Yes  No  
If yes, how many times? (including first offering)

15. Is Course Crosslisted:  Yes  No  
If yes, indicate which course and check "yes" in item #22 below.

16. Prerequisite(s):  Yes  No Fulfillment of the ELM requirement.

17. Corequisite(s):  Yes  No

18. Documentation attached:  Syllabus  Detailed Course Outline

19. If this course has been offered as a topic, please enter topic abbreviation, number, and suffix:\*

20. How often will this course be offered once established? \* Once a year.

**PROGRAM DIRECTOR/CHAIR - COLLEGE CURRICULUM COMMITTEE SECTION:**  
(Mandatory information – all items in this section must be completed.)

21. Does this course fulfill a requirement for any major (i.e., core course or elective for a major, majors in other departments, minors in other departments)?  Yes  No  
If yes, please specify:  
MS in Speech-Language Pathology (see att. Catalog Copy).  
BS in SLP and Postbacc. in SLP

22. Does this course impact other discipline(s)? (If there is any uncertainty as to whether a particular discipline is affected, check "yes" and obtain signature.)  Yes  No  
If yes, obtain signature(s). Any objections should be stated in writing and attached to this form.

<sup>S</sup> MA in Speech-Language Pathology\*  
Discipline \_\_\_\_\_ Signature \_\_\_\_\_ Date 4/7/15 Support  Oppose

Discipline \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_ Support  Oppose

\*The Department of Mathematics is aware of the fact that many other disciplines offer an elementary statistics course designed for their majors, but we don't think that their offerings will be affected by the proposed course.

**SIGNATURES : (COLLEGE LEVEL) :**

OLAF HAUSEN 4/7/15

1. Originator (please print or type name) \_\_\_\_\_ Date \_\_\_\_\_

A.G. 4/9/15

2. Program Director/Chair \_\_\_\_\_ Date \_\_\_\_\_

3. College Curriculum Committee \_\_\_\_\_ Date \_\_\_\_\_

Marcus Dotier 5/7/15

4. College Dean (or Designee) \_\_\_\_\_ Date \_\_\_\_\_

**(UNIVERSITY LEVEL)**

5. UCC Committee Chair \_\_\_\_\_ Date \_\_\_\_\_

6. Vice President for Academic Affairs (or Designee) \_\_\_\_\_ Date \_\_\_\_\_

7. President (or Designee) \_\_\_\_\_ Date \_\_\_\_\_

Office of Academic Programs Banner: \_\_\_\_\_ Catalog: \_\_\_\_\_

**RECEIVED**  
MAY 11 2015  
Revised 5/28/2007  
BY: \_\_\_\_\_

\* If Originator is uncertain of this entry, please consult with Program/Department Director/Chair.

# Course Outline

## Mathematics 142 – Basic Statistics

**Course description:** Topics include types of data; descriptive statistics; types of studies; probability and sampling distributions; statistical inference; correlation and linear regression; chi-square, t-tests, and F-test; interpretation of the relevance of the statistical findings. Course might include the application of technology for statistical analysis. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education. *Enrollment restricted to students who completed the entry-level mathematics requirement (ELM).*

### Student Learning Outcomes:

Upon completion of the course students will be able to

1. Distinguish among different types of data;
2. Interpret data displayed in tables and graphs;
3. Plot data and calculate measures of central tendency and spread;
4. Identify the standard methods of obtaining data and identify advantages and disadvantages of each;
5. Calculate probabilities using normal and t-distributions;
6. Distinguish the difference between sample and population distributions and analyze the role played by the Central Limit Theorem;
7. Construct and interpret confidence intervals;
8. Determine and interpret levels of statistical significance including p-values;
9. Identify the basic concepts of hypothesis testing including Type I and II errors;
10. Formulate hypothesis tests involving samples from one and two populations;
11. Select the appropriate technique for testing a hypothesis and interpret the result;:

### Possible Grading Scale:

<b>A:</b>	90% - 100%
<b>B:</b>	80% - 89%
<b>C:</b>	70% - 79%
<b>D:</b>	60% - 69%

### Possible Grading Policy:

Homework	10%
Quizzes	15%
Exams (3x15%)	45%
Final Exam	30%

**Possible Textbooks:**

1. J.M. Utts, R.F. Heckard, Mind on Statistics, Cengage Learning, 2015.
2. C.H. Brase, C.P. Brase, Understandable Statistics - Concepts and Methods, Cengage Learning, 2015.

**Tentative course outline:**

Week	Topics
1	Raw data, types of variables, summarizing data with pictures.
2	Exploring quantitative data with pictures, stemplots, histograms, and dotplots.
3	Measures of central tendency, mean, standard deviation, and the five point summary.
4	Relationships between quantitative variables, the regression line and the correlation coefficient.
5	Relationships between categorical data, two way tables.
6	Sampling: Population and sample, surveys, and how to ask questions.
7	Designing a good experiment, designing a good observational study.
8	Probability and randomness.
9	Random variables and distributions, the normal distribution and the t-distribution.
10	Understanding sampling distributions, Central Limit Theorem, preparing for statistical inference.
11	Estimating means with confidence intervals.
12	Estimating means with confidence intervals, continued.
13	Testing hypothesis about means.
14	Testing hypothesis about means, continued.
15	The chi-square test for two way tables.

Change to  
**SPEECH-LANGUAGE PATHOLOGY PREPARATION PROGRAM** (Formerly  
Communicative Sciences and Disorders Preparation Certificate)

**Office:** Extended Learning

**Telephone:** (760) 750-8729

**Faculty:**

Erika Daniels, Ed.D.

Elizabeth Garza, Ed.D.

Lori Heisler, Ph.D., CCC/SLP

Suzanne Moineau, Ph.D., CCC/SLP

Alison Scheer-Cohen, Ph.D., CCC/SLP

Stephen Tsui, Ph.D.

*Joan Hewitt, AuD, CEC/A*

This preparation program provides the foundational coursework that is prerequisite for a student to apply to the Master of Science in Speech-Language Pathology (MS in SLP) at CSUSM. It is intended for those that do not hold a Bachelor's degree in speech-language pathology or communicative sciences and disorders. These courses may also be used as the prerequisite coursework for other master's programs in the field of speech-language pathology or communicative sciences and disorders, and interested students are recommended to consult with individual programs about their equivalency.

Thirty-three (33) units of undergraduate study are part of this preparation program:

Required Courses:

	<b>Units</b>
EDUC 380 or PSYC 330	3
MATH 242 <i>142</i>	3
SLP 150	3
SLP 201	3
SLP 251	3
SLP 320 or BIOL 320	3
SLP 364, EDUC 364 or ID 340	3
PHYS 357	3
SLP 391	3
SLP 450	3
SLP 491	3

Students should note that the American Speech-Language Hearing Association requires coursework in: Biological Sciences (preferably related to humans or animals), Physical Sciences (preferably physics or chemistry), Social Sciences (e.g., Psychology, Sociology, or

Anthropology) and Statistics in order to apply for the Certificate of Clinical Competence (CCC). This certificate will provide students with the coursework to satisfy all of these requirements.

SLP 320 and BIOL 320 count as the Biological Science requirement. Please note that while these courses are specific to speech and hearing, they are considered General Education (GE) courses at CSUSM and therefore count towards the Biological Sciences requirement.

PHYS 357 counts as the Physical Requirement. It is also a GE Course at CSUSM and therefore counts toward the Physical Science requirement.

EDUC 380 or PSYC 330 counts as the Social Science Requirement.

MATH ~~242~~<sup>142</sup> is a course in Statistics.

New Program:

**B.S. IN SPEECH-LANGUAGE PATHOLOGY**

**Office:**

Extended Learning

**Telephone:**

(760) 750-8729

**Chair and Program Director:**

Suzanne Moineau, Ph.D.

**Faculty:**

Erika Daniels, Ed.D.

Elizabeth Garza, Ed.D.

Lori Heisler, Ph.D.

~~Deanna Hughes, Ph.D.~~

Suzanne Moineau, Ph.D.

Alice Quiocho, Ed.D.

Jodi Robledo, Ph.D.

Alison Scheer-Cohen, Ph.D.

Extended Learning offers a Bachelor of Science degree in Speech-Language Pathology (SLP) that provides foundational coursework necessary for application to graduate programs that lead to a career in speech-language pathology. Students who earn this Bachelor of Science in SLP will be eligible to apply to the Master of Science in Speech-Language Pathology\*. The program will provide students with a broad education, covering content related to speech, language, communication, and cognitive and swallowing disorders across the lifespan. It will build important foundational skills in professional oral and written communication, evidence-based practice, and cultural sensitivity. As the coursework has both breadth and depth in related fields, the Bachelor's degree can lead to careers in related fields including communication, counseling, general education, health, human development, rehabilitation, social service, and special education.

*\*The coursework associated with the major will satisfy most other speech language pathology/communicative sciences and disorders master's program's admissions requirements, but this may differ from program to program, and applicants are encouraged to contact specific programs for additional information. Application to the speech language pathology master's program at CSUSM does not guarantee admission.*

**Program Goals**

1. The student must have demonstrated knowledge of basic human communication and swallowing processes, including the appropriate biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases;
2. The student must have demonstrated knowledge of communication and swallowing disorders and differences and ability to communicate this knowledge in oral and written form;

3. The student must have demonstrated knowledge of processes used in evidence based research, ethical practice and contemporary professional issues.

### **Program Student Learning Outcomes**

Students who graduate with a Bachelor of Science in Speech-Language Pathology will be able to:

1. Analyze a speech and language sample in terms of its acoustic, phonetic, phonological, morphological, syntactic, semantic, and pragmatic qualities in children and adults from diverse populations.
2. Apply knowledge of anatomy and physiology to normal communication and swallowing processes.
3. Synthesize information about anatomical/physiological, acoustic, psychological, developmental, linguistic and cultural correlates to differentiate swallowing and communication disorders, including differentiating disorders from differences and typical functions.
4. Evaluate assessment data to produce oral and written technical reports, diagnostic and treatment plans, and professional correspondence.
5. Synthesize scientific evidence and analyze its validity and reliability in order to gain a greater understanding of the nature of communication and swallowing disorders.
6. Evaluate the appropriateness of counseling, supervision, and behavior management practices according to the ASHA code of ethics and roles and responsibilities prescribed in the field of Speech-Language Pathology.

### **Degree Requirements**

The courses are sequenced as a cohort model such that accepted students go through the same courses at the same time. Students must complete 15 units of lower-division preparatory coursework prior to beginning the major. The lower-division preparatory coursework can be satisfied at any college/university that offers this content.



<b>B.S. IN SPEECH-LANGUAGE PATHOLOGY</b>	
Lower-Division General Education	42
Preparation for the Major	15
Upper-Division General Education	9
Major Requirements	51

**Preparation for the Major (18 units)**

Required Lower-Division Preparatory Coursework (15 units)	
	<b>Units</b>
MATH 242 <i>142</i>	3
SLP 150 or 175	3
SLP 201	3
SLP 222	3
SLP 251	3

**Upper-Division General Education (9 units)**

EDUC 380	3*
PHIL 345	3+
PHYS 357	3^

**Major Requirements (51 units)**

SLP 320	3
SLP 352	3
SLP 364	3
SLP 391	3
SLP 400	3
SLP 401	3
SLP 432	2
SLP 450	3
SLP 451	3
SLP 452	3
SLP 461	3
SLP 463	4
SLP 471	3
SLP 473	3
SLP 491	3
SLP 492	3
Elective	3

\*If taken after students have completed 60 units, this course will satisfy the Upper-Division General Education requirement in area DD.

+ If taken after students have completed 60 units, this course will satisfy the Upper-Division General Education requirement in area CC.

^ If taken after students have completed 60 units, this course will satisfy the Upper-Division General Education requirement in area BB.

All courses taken for the major, including preparation for the major, must be completed with a grade of C (2.0) or better.

## **Admission and Graduation Requirements**

The Bachelor of Sciences in Speech Language Pathology has the same general undergraduate admission and graduation requirements and/or transfer policies/requirements described in California State University San Marcos' Catalog. Students must, however, complete the 15 units of lower-division preparatory coursework prior to the start of the major.

New Program:

**M.S. IN SPEECH-LANGUAGE PATHOLOGY\***

(76 Units)

**Core Faculty:**

Erika Daniels, Ed.D.

Lori Heisler, Ph.D., CCC/SLP

Suzanne Moineau, Ph.D., CCC/SLP

Alice Quioco, Ed.D.

Jodi Robledo, Ph.D.

Alison Scheer-Cohen, Ph.D., CCC/SLP

*Laura Coca, MS CCC/SLP*

*Kristen Nahrstedt, MA CCC/SLP*

**Program Description**

This Master's level program will prepare candidates for the professional practice of Speech-Language Pathology. The coursework and practicum experiences that comprise this degree enable candidates to simultaneously obtain the Master of Science in Speech-Language Pathology degree, fulfill the academic requirements for the American-Speech Language Hearing Association's (ASHA) membership and certification (CCC), the California Commission on Teacher Credentialing (CCTC) requirements for obtaining the Speech Language Pathology Services Preliminary Credential and apply for a temporary state licensure through the California Speech-Language Pathology & Audiology & Hearing Aid Dispenser's Board (SLPAB). To be admitted to this Master's program, a candidate must show evidence of successful completion of prerequisite courses in Speech and Language Sciences or Communicative Sciences and Disorders. After earning this Master of Science degree, in order to earn their permanent state license, speech-language pathology clear credential and national certification, candidates must (a) pass the National Exam (PRAXIS), and (b) complete the clinical fellowship year (CFY).

The Master's program in speech language pathology at CSUSM is a Candidate for Accreditation by the Council on Academic Accreditation in Audiology and Speech Language Pathology (CAA) of the American Speech-Language and Hearing Association. In-Candidacy is a pre-accreditation status with the CAA, awarded to developing or emerging programs for a maximum period of five years. This program is approved by the CCTC.

For further details on state licensure, ASHA membership and certification, and CCTC credentialing, please refer to their web pages:

<http://www.slpab.ca.gov/applicants/licensing.shtml>

<http://www.asha.org/certification/SLPCertification.htm>

<http://www.ctc.ca.gov/credentials/CREDS/speech-lang-path.html>

*\*The M.S. in Speech-Language Pathology is offered through Extended Learning.*

## Program Student Learning Outcomes

Students who graduate with a Master of Science in Speech-Language Pathology will be able to:

1. Describe the nature of typical and disordered communication and swallowing across the lifespan.
2. Integrate theory, research, and Evidence-Based Practice principles into prevention, assessment and intervention practices.
3. Interact and communicate in ways that promote wellness and reflect respect for diversity, collaboration and ethics.
4. Demonstrate summative knowledge and skills necessary for entry-level practice within the field of speech-language pathology through defense of a culminating experience.

### Admission Requirements:

- Preparation for ASHA certification, which includes one Biological Science (human or animal), one Physical Science (Physics or Chemistry), one Social Science (Psychology, Sociology, Anthropology or Public Health), and a Statistics course. These courses must be outside of the domain of communicative Sciences and Disorders.
- Bachelor's Degree, including undergraduate preparatory coursework in basic science<sup>^</sup>
- A minimum undergraduate grade point average of 3.0.
- All applicants, regardless of citizenship, who do not possess a bachelor's degree from a post-secondary institution where English is the principal language must satisfy the English language proficiency requirement.
- Two letters of recommendation.
- Personal Essay.

Candidates who meet the requirements will be invited for an interview with a panel of admissions advisors.

<sup>^</sup>Required Preparatory Undergraduate Coursework:

EDUC 380/PSYC 330	3
MATH <del>242</del> 142	3
SLP 150	3
SLP 201	3
SLP 251	3
SLP 320 or BIOL 320	3
SLP 357/PHYS 357	3
SLP 364/EDUC 364 or ID 340	3
SLP 391	3
SLP 450	3
SLP 491	3