Admissions Packet Contents:

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APPLICATION PROCEDURE

1. Complete the application form online at http://gradcollege.okstate.edu/content/application-process-0 or by contacting the Graduate College office at (405) 744-6368. This first step in the process does not signify admission to the Ph.D. program.

   The Enrollment and Admission Information block on the Application for Graduate Admission is very important. The proposed major is Education; the degree sought is Ph.D.; and the specialization within major is Science Education.

2. Submit all official transcripts from all institutions of higher education directly to the Graduate College. (Note: A minimum grade point average in graduate coursework of 3.50 on a 4.00 scale is required.)

3. Submit either a GRE or MAT score current within the past five years. (Note: For the GRE, a score of 151 verbal and 150 quantitative is expected and 4.5 on the analytical scale. For the MAT, a raw score of 400 is expected.)

   Information about the GRE can be found at www.gre.org. Copies of the Bulletin of Information and List of Testing Centers with 100 practice items for the MAT are available from the OSU University Testing and Evaluation Center. The GRE and MAT are given at OSU, Stillwater, University Testing and Evaluation Service, 107 UAT Building, 1524 W. Admiral Avenue, (405) 744-5958; at OSU Tulsa, the MAT is administered at the Student Success Center, North Hall, (918) 594-8404 and the GRE at Sylvan Learning Center, (918) 249-0820. Scores are automatically sent to the Graduate College when the institution code of 6546 is used and forwarded to the College of Education when the department code is given as 3101 or marked for education.

4. Submit three professional recommendations. References should include the major advisor and faculty for any graduate work completed. These references should include statements relating to
   a) the applicant’s success in professional settings or commitment to professionals allied with the disciplines in the College of Education,
   b) the applicant’s prior academic record as a reflection of ability to succeed in a doctoral program, and
   c) the applicant’s potential for success in research, writing, and coursework at the doctoral level.
If such references are not available, the applicant should submit references from one or more faculty members familiar with the applicant’s academic career. Other references should be from individuals capable of addressing the applicant’s ability to complete a doctoral program successfully.

5. Submit a current and complete resume/vita.

6. Submit a two-page statement clearly articulating how the Ph.D. program will contribute your future goals. The statement should include an explanation of your goals and expectations for doctoral study and how prior academic and professional experiences have prepared you for your chosen area of study.

7. Submit an academic or scholarly paper you have written recently.

Note: Some program options require a personal interview for admission. If an interview is required, you will be contacted and arrangements will be made.

### Application Deadlines:

- Rolling admission until July 1 for Fall admission
- Rolling admission until December 1 for Spring admission

### Priority deadlines for scholarship applications:

- September 15 for Summer or Fall enrollment
- January 15 for Spring enrollment

For international applicants, see the Graduate College requirement at: [http://gradcollege.okstate.edu/content/application-process-0](http://gradcollege.okstate.edu/content/application-process-0)

**NOTE:** Incomplete applications will not be reviewed.
APPLICATION REVIEW PROCESS

The science education faculty will review all applications as a committee.

Admission decisions.

Usually within six weeks of the application deadline, candidates will be notified via a letter about admission status. Admission decisions are based on appropriate academic, scholarly and research alliances among the student, the faculty and the focus of the Ph.D. program in Education. Available resources and current enrollment within the program play a significant role in the admission decision. The graduate faculty in the program option will determine the number of students that may be admitted at any given time.

Request for additional information.

If the admissions committee determines that an applicant is deficient in one or more of the standards, the committee may request the following of the applicant before a final decision is rendered regarding admission status:

- A faculty-supervised on-campus writing exercise will be administered. The applicant will be provided with a scholarly article two weeks prior to the writing exercise. The applicant will be given two hours to produce a written response to a question regarding the article.
- The applicant will participate in an on-campus interview with members of the admissions committee.

Standards for provisional admission.

Provisional admission may be recommended for an applicant who shows excellent promise but does not meet all of the standards listed above. In order to be granted unqualified admission, applicants admitted on a provisional basis must, within one calendar year, earn a minimum GPA of 3.5 in nine hours of doctoral coursework designated by the admissions committee.
ADMISSION CRITERIA

Applicants are evaluated on the following standards:

- Successful completion of a rigorous master's degree program.
- Demonstration of superior writing skill.
- Indication of ability to conduct original research.
- Clearly articulated goals and objectives that are consistent with the desired degree option.
- Strong endorsement by professional references who can address applicant’s academic ability.
- Demonstrated knowledge in the field of specialization.
- Appropriate GRE or MAT score.

Leveling work and standards for technological competence.

Applicants must have appropriate background experiences specified for degree option. Students will be expected to use technology resources appropriately in course projects assignments and research. Admissions committees may stipulate that an applicant without particular background complete additional leveling coursework.
School of Teaching and Curriculum Leadership (STCL)

PhD in Education: Science Education
Degree Information

The faculty members in the Ph.D. in Education have designed the curriculum to provide the knowledge, skills, and experiences necessary for understanding teaching and learning. Students plan their programs in consultation with their advisors and dissertation committees. The total number of hours required for the degree is 69 hours past the master’s degree, and all hours listed are required minimums. Some programs may require more than the 69-hour minimum. Students may take additional hours. The degree has the following components:

COURSEWORK

Common Program Core: 9 credit hours

- SCFD 6983 Diversity & Equity Issues in Education and
- SCFD 6113 Theoretical Foundations of Inquiry and
- CIED 6503 Doctoral Seminar

Extended Inquiry: 12 credit hours
At least six of these hours, selected from courses such as those listed below, should be composed of the same type of research method (i.e., quantitative, qualitative, historical, etc.). Students should work with their advisory committee to select the appropriate 12 hours for their program of study.

- CIED 6073 Advanced Pedagogical Research
- CIED 6253 Designing and Conducting Mixed Methods Research
- REMS 6003 Analysis of Variance
- REMS 6013 Multiple Regression Analysis
- REMS 6023 Psychometric Theory
- REMS 6033 Factor Analysis in Behavioral Research
- REMS 6663 Applied Multivariate Research
- REMS 5963 Computer Applications in Nonparametric Data Analyses
- SCFD 6123 Qualitative Research I
- SCFD 6190 Qualitative Research: Selected Methods
- SCFD 6193 Qualitative Research II

Cognate area: 9 credit hours
The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.

Independent Research: 15 credit hours
- CIED 6000 Dissertation

Specialization – Science Education: 24 credit hours

All students will take the following 9 hours:
- SMED 6223: Instruction and Learning in Science and Mathematics Education
- SMED 6233: Affective Issues in Science and Mathematics Education
- SMED 6750: Research in Mathematics and Science Education
Select 15 hours from the following:
CIED 5850: Directed Study
CIED 6910: Practicum
CIED 6850: Directed Study
CIED 5193: Inquiry and Problem-Based Learning in Science Education.
CIED 5720: Education Workshop.
CIED 5850: Directed Study
CIED 6850: Directed Study
CIED 6910: Practicum
SMED 5050: Integrating Mathematics and Science Applications
SMED 5223: Teaching Science in the Elementary School
SMED 5243: Environmental Education in the Curriculum
SMED 5280: Workshop in Science Education
SMED 6123: Teaching the Nature of Science in Secondary Science Education.
CIED 6013: Assessment in Science Education.

In addition to the requirements listed above for degree completion, students must have (a) presented at a professional conference and (b) submitted an article for publication. Faculty will support and mentor candidates through these processes.

For more information, please feel free to contact the Science Education faculty coordinator:
Dr. Toni Ivey
235 Willard Hall
405.744.8019
toni.ivey@okstate.edu

Note: Students will proceed through their degree programs with the assistance and guidance of a faculty advisor and an advisory committee. The student develops a plan of study, submits a dissertation proposal, completes a qualifying examination, and completes a dissertation following the procedures outlined by the Graduate College, the Ph.D. program, and the degree option. (See the program web site and the University Catalog for further detail about the expectations for the degree.)

Note: Students should download the STCL graduate student handbook at http://education.okstate.edu/phded
The Doctor of Philosophy in Education is based on the strength and diversity of its faculty members. Current faculty members, with their respective areas of research focus, are as follows. Mathematics and Science faculty work as a group and some courses will be integrated mathematics and science coursework. Thus, all mathematics and science education graduate faculty are listed below.

<table>
<thead>
<tr>
<th>Faculty Name/E-mail</th>
<th>Research Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Angle, Julie</strong></td>
<td>Nature of science; mentored STEM research experiences for preservice and in-service science teachers; science teacher efficacy; preparing preservice teachers to teaching through an inquiry approach.</td>
</tr>
<tr>
<td><a href="mailto:julie.angle@okstate.edu">julie.angle@okstate.edu</a></td>
<td></td>
</tr>
<tr>
<td><strong>Cribbs, Jennifer</strong></td>
<td>Mathematics identity and student persistence in STEM, gender studies, in-service teachers' use of inquiry in the classroom</td>
</tr>
<tr>
<td><a href="mailto:jennifer.cribbs@okstate.edu">jennifer.cribbs@okstate.edu</a></td>
<td></td>
</tr>
<tr>
<td><strong>Hathcock, Stephanie</strong></td>
<td>Science Pre-Service and In-service Teacher Change, Teacher Induction, Teaching and Learning Creatively, Place-Based Education</td>
</tr>
<tr>
<td><a href="mailto:stephanie.hathcock@okstate.edu">stephanie.hathcock@okstate.edu</a></td>
<td></td>
</tr>
<tr>
<td><strong>Ivey, Toni</strong></td>
<td>Science preservice and in-service teacher education, education policy, beginning teacher support, mentoring, STEM education, engineering education, geoscience education</td>
</tr>
<tr>
<td><a href="mailto:toni.ivey@okstate.edu">toni.ivey@okstate.edu</a></td>
<td></td>
</tr>
<tr>
<td><strong>Sanogo, Adrienne</strong></td>
<td>Teaching and learning of fractions, integrating technology in the mathematics classroom, equity issues in mathematics, STEM</td>
</tr>
<tr>
<td><a href="mailto:adrienne.redmond@okstate.edu">adrienne.redmond@okstate.edu</a></td>
<td></td>
</tr>
<tr>
<td><strong>Utley, Juliana</strong></td>
<td>Mathematics preservice and in-service teacher education, Beliefs about Teaching and Learning Mathematics, Beginning Teacher Support, STEM Education</td>
</tr>
<tr>
<td><a href="mailto:juliana.utley@okstate.edu">juliana.utley@okstate.edu</a></td>
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