



SCIENCE FALL & WINTER COURSE LISTINGS

SCIE120: Scientific Inquiry and Field Work (Grades 6-8): Inquiring young minds can tackle problem solving successfully. Keep your students engaged by incorporating current technology into your science curriculum. Visit Web sites that enable students to collect and analyze data using online equipment and learn high-tech strategies that allow them to record and analyze information, investigate the results, and share their findings. Then, design a unit plan for an ecosystem field trip that incorporates what you've learned. (30 hours: Fall)

SCIE125: Fostering Cooperative Learning, Inquiry, and Critical Thinking in Elementary Science (Grades 1-4): Learn to meet national science standards by helping students develop the skills necessary to analyze ideas, think critically, and communicate clearly. Create lessons and activities that support collaboration, inquiry, and critical thinking. (30 hours: Fall)

SCIE130: Fostering Collaboration, Inquiry, and Critical Thinking in Middle School Science (Grades 5-8): Use technology-enhanced critical thinking and cooperative learning strategies to encourage middle school science students to ask questions, collaborate with others, and explore and evaluate data. (30 hours: Winter)

SCIE500: Teaching Elementary Life Science (Grades K-4): Enhance your understanding and teaching of life science. In addition to developing content knowledge, you will be introduced to the constructivist learning model, learn a range of effective teaching methodologies and experience a media-rich learning environment which you can use with your students. (45 hours: Winter)



SCIE504 Plants and Animals (Grades K-4): A topic immersion course on Teaching Elementary Life Science. Lead your students' examination of how the structures and functions of plants and animals help them meet their needs as living things. Explore strategies for the use of concept maps and effective uses of live plants and animals in the classroom to present plants as producers and animals as consumers. (30 hours: Fall)

SCIE506 Heredity and Adaptation (Grades K-4): A topic immersion course on Teaching Elementary Life Science. Go beyond the topics typically taught in elementary life science to provide your students with a foundation for the larger K-12 science scope and sequence. As you review the difference between inherited and environmental traits and examine the processes of heredity and natural selection, you will focus on ways to prepare your students for future study in genetics and evolution. (30 hours: Winter)

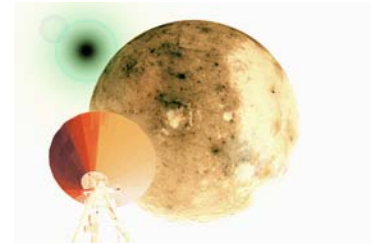
SCIE510: Teaching Middle School Life Science (Grades 5-8): Experience the constructivist-learning model firsthand as you deepen your knowledge of the entire range of life science topics—from the structure and function of organisms and cells, to applied genetics and natural selection. This course incorporates inquiry, methodology, and meta-cognitive strategies for learning and teaching, including scientific reasoning, prediction, and abstract and critical thinking to maximize the impact of your science curriculum. (45 hours: Winter)



SCIE520 Teaching High School Biology (Grades 9-12): Learn inquiry-based approaches to teaching standards-based science topics, including genetics, evolution, and cell biology. Gain practice using multimedia to explore novel learning environments and methodologies that foster student interest, involve them in the research process, advance their critical thinking skills, and develop their conceptual understanding. (45 hours: Fall)

SCIE534: Understanding Motion and Force (Grades K-4): Learn to identify and analyze the forces that cause the motions of rolling, falling, floating, and sinking. Explore ways to foster learning through the making and testing of predictions and develop strategies to employ observation and experimentation to illustrate the major forces that act on moving objects. (30 hours: Winter)

SCIE564 Structure of the Earth System (Grades 5-12): A topic immersion course on Teaching Earth and Space Science. Develop content knowledge about landform processes, data sets, and mapping tools while you learn teaching methodologies, strategies, and tools for use in teaching earth and space science concepts. Uncover the processes that account for the Earth's ever-changing appearance, and investigate how the rock cycle connects to these processes. (30 hours: Fall)



SCIE566 Earth in Time and Space (Grades 5-12): A topic immersion course on Teaching Earth and Space Science Explore how the geological record helps us understand the long history of the Earth system and how the Sun-Earth-Moon system affects our world. Learn effective ways to illustrate the vast scales associated with the solar system and the universe. (30 hours: Winter)

Fall Semester Begins October 26th

Registrations must be received by October 16th

Winter Semester Begins January 25th

Registrations must be received by January 15th

Register online at: www.thinkbright.org/teacherline

For more information call: (716) 845-7000 ex 360

