June, 2013

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| Indiana Preservice Standards for Biology | Description  | NCATE/NSTA Standards  | Hanover Course | Other standards | SPA Key Assessment |
| Standard 1: The Nature and Processes of Science | Life science teachers have a broad and comprehensive understanding of the nature of science and the processes of scientific inquiry  | NSTA Standard 1: Content  | EDU 337 (r)BIO 161-Ecology and Evolution (r) |  | Assessment 1: state licensure examAssessment 2: comps/GPA course analysis |
| Standard 2: Central Concepts and Connections in Science  | Life science teachers have a comprehensive understanding of the core ideas in other science disciplines and of the relationships between science, engineering and society  | NSTA standard 1: Content | EDU 337 (r)CHEM 161 (r)GEO (r-env) 161/162/261/262AST 165/166PSY 161 |  |  |
| Standard 3: Cellular Chemistry and Structure | Life science teachers have a broad and comprehensive understanding of cellular chemistry, structures and functions | NSTA Standard 1: Content | BIO 185- (r) Cellular Chem/structureBIO 336-Cell Bio |  |  |
| Standard 4: Organisms | Life science teachers have a broad and comprehensive understanding of organization and structures of organisms and the processes involved in growth, maintenance, and reproduction | NSTA Standard 1: Content | BIO 234-Plant Taxonomy orBIO 313-Plant Anatomy andBio 317-Vertebrate Bio orKIP 215-Human Anatomy orKIP 230-Physiology |  |  |
| Standard 5: Interdependence  | Life science have a broad and comprehensive understanding of ecological principles, the interactions between living and nonliving components of ecosystems, and the relationships between organisms.  | NSTA Standard 1: Content | BIO 161- (r) Ecology and EvolutionBIO 231- (r-env) BiodiversityBIO 214-TropicalBIO 226-AquaticBIO 315-Ecology |  |  |
| Standard 6: Heredity and Genetics  | …Understanding of the molecular basis of heredity, the processes of cell division and the principles of genetics  | NSTA Standard 1: Content | BIO 212- (r) GeneticsBio 312-Conservation BIOBIO 314-Molecular BIO |  |  |
| Standard 7: Evolution | … Understanding of evolution, the history of life on earth, and the modern taxonomic classification | NSTA Standard 1: Content | BIO 161- (r) Ecology and EvolutionBIO 231-Biodiversity |  |  |
| Standard 8: Science Instruction and Assessment  | …understanding of content-specific instruction and assessment in science  | Standard 2-content pedagogyStandard 3-Learning EnvironmentsStandard 4-SafetyStandard 5-impact on student learning Standard 6-professional knowledge and skills  | EDU 337/EDU 455 unit planStudent Teaching EvaluationLesson Series 337 EDU 455PD-HASTI | ISTE 1a-1d; 2a-d; 3a-d; 4a-bCommon Core literacy (reading and writing): Grades 9-10: 1-10; Grades 11-12: 1-10;  | Assessment #3:Pedagogical andProfessionalKnowledge andSkills– Planninginstruction andassessment(required)Assessment #4:Pedagogical andProfessionalKnowledge andSkills– StudentTeachingAssessment withLegal/Safety/EthicalIssues (required)Assessment #5:Effects on StudentLearning (required)Assessment #6:Pedagogical andProfessionalKnowledge andSkills (required) |

Electives: BIO 316-Animal Behavior; BIO 328-Immunology; BIO 333-Microbiology;