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| **Course Submitted**  **(Subject/Number/Title)** |  |
| **Submitted by**  **(Name/Department)** |  |
| **Department/Unit Oversight Note** | It is the responsibility of the department or unit (1) to keep a copy of this finalized worksheet together with the approved sample syllabus and/or syllabus template and (2) to pass along all relevant documents to additional instructors who will teach the course in the future.  ☐Check here if you, as an instructor within a department or unit, understand and have confirmed that your supervisor is aware of this Core request stated above. |

| **Ways of Thinking: Natural and Applied Sciences** | | | **Core Requirement** |
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|  | |  | |
| **Core component title** | Varies | | |
| **Minimum credit hours** | 3 | | |
| **Core-specific pre- and co-requisites / requirements** | N/A | | |
| **Core component summary** | Courses that satisfy the Natural & Applied Sciences requirement foster students’ understanding of modes of inquiry used to study structures and mechanisms of the universe. In these courses, students develop an understanding of scientific laws, principles, and theories as well as methods to test empirical claims. These courses give students the tools to evaluate claims about the natural and physical world and/or to apply scientific reasoning to real-world problems. | | |
| **Notes** | * Courses that fulfill this requirement develop students’ ability to engage in methods of interpretation central but not limited to disciplines centered around natural science, engineering, computer science, medicine, and technology * Courses that meet the learning outcomes and essential criteria for this component may be submitted from any department or program | | |

**All courses approved to count for University Core requirements must include both course-level and Core-level student learning outcomes on their syllabi. Please follow this link for mandatory syllabus material to be incorporated into your syllabus:**

[**Mandatory Syllabus Material for University Core Courses/Experiences**](https://drive.google.com/file/d/1wTSQ0XWeUJ16OcMX-DG0518krK41tUus/view)

The Saint Louis University Core is an academic program intentionally structured to facilitate student achievement of both holistic and component-level student learning outcomes (SLOs). [SLU’s Course Syllabus Policy](https://www.slu.edu/provost/policies/academic-and-course/policy-course-syllabus.pdf) requires that learning outcomes appear on all syllabi. Below, you will find a table with the University Core and Core Component SLOs indicated. Please copy the boilerplate below and insert it into the syllabus you upload to CourseLeaf for review by the University Undergraduate Core Committee (UUCC).

\*\*Please note: If this course meets more than one Core Component Area requirement, please modify accordingly

**Ways of Thinking: Natural and Applied Sciences**

This course is part of the Saint Louis University Core, an integrated intellectual experience completed by all baccalaureate students, regardless of major, program, college, school or campus. The Core offers all SLU students the same unified approach to Jesuit education guided by SLU’s institutional mission and identity and our nine undergraduate [Core Student Learning Outcomes](https://www.slu.edu/core/faculty-resources/core-student-learning-outcomes.php) (SLOs).

| **Ways of Thinking: Natural and Applied Sciences** is one of 19 Core Components. The University Core SLO(s) that this component is designed to intentionally advance are listed below: |
| --- |
| **University Core Student Learning Outcomes**  The Core SLO(s) that this component is intentionally designed to advance are: |
| SLO 2: Integrate knowledge from multiple disciplines to address complex questions |
| SLO 3: Assess evidence and draw reasoned conclusions |

| Additionally, the Core Component-level Student Learning Outcomes are listed below: |
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| **Component-level Student Learning Outcomes**  Students who complete this course will be able to: |
| * Acquire knowledge of the world through a scientific discipline (natural or applied sciences) |
| * Express how scientific disciplines approach complex questions |
| * Use scientific thinking to draw conclusions about multidimensional problems |
| * Assess data used to make evidence-based decisions |

| **Core Component Learning Outcomes** | |  |
| --- | --- | --- |
| **Below, you will find listed the 4 course-level student learning outcomes associated with this Core component area.** | ***In the space provided, please provide examples of readings, assignments, and/or activities that demonstrate how this course is designed to facilitate student achievement of these outcomes.*** | |
| * Students will be able to acquire knowledge of the world through a scientific discipline (natural or applied sciences)   ☐Check here if submitting UUCC requested revisions | How will you ensure that this course will teach students about—and require students to engage in—the different ways of thinking through which scholars study and apply scientific principles to answer questions about the structure and behavior of the natural world or engineering, medical, or computer science applications? | |
| * Students will be able to express how scientific disciplines approach complex questions   ☐Check here if submitting UUCC requested revisions | How will you ensure that this course introduces students to how the scientific method, scientific inquiry, or the engineering design process is applied to a topic, question, or problem? | |
| * Students will be able to use scientific thinking to draw conclusions about multidimensional problems   ☐Check here if submitting UUCC requested revisions |  | |
| * Students will be able to assess data used to make evidence-based decisions   ☐Check here if submitting UUCC requested revisions | How will you ensure that this course introduces methods for assessing the validity/quality of the data used in scientific thinking and especially the limits on what can be decided from a given set of data? | |

| **Core SLO(s) (**[**Click here for more information on Core SLO’s**](https://drive.google.com/file/d/15qtYvj1085Y8OHJ8GRkxzRW2w-H_t6FU/view)**)** | |  |
| --- | --- | --- |
| **This course/experience is part of an integrated university-wide Core curriculum designed to facilitate student achievement of SLU’s nine University Core SLOs. Below, you will find listed the 2 University Core-level student learning outcomes associated with this Core component area.** | ***In the space provided, please provide examples of readings, assignments, and/or activities that demonstrate how this course is designed to facilitate student achievement of these 2 outcomes at the levels indicated in parentheses.*** | |
| **SLO 2: Students will be able to integrate knowledge from multiple disciplines to address complex questions (Develop)**  ☐Check here if submitting UUCC requested revisions |  | |
| **SLO 3: Students will be able to assess evidence and draw reasoned conclusions (Develop)**  ☐Check here if submitting UUCC requested revisions |  | |