## ASTR 100: Introductory Astronomy: A Study of the Solar System and Beyond

**Indiana Academy for Science, Mathematics, and Humanities**

<table>
<thead>
<tr>
<th>BSU Credits</th>
<th>3 credit hours</th>
<th>College of Science and Humanities</th>
<th>Department of Physics and Astronomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>Krista Hook</td>
<td>Office Location</td>
<td>Elliot Hall – B027</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:Krista.Hook@bsu.edu">Krista.Hook@bsu.edu</a></td>
<td>Office Hours</td>
<td>MWF: 10:00am – 12:00pm, 4:00pm – 7:00pm, T: 2:00pm – 3:30pm</td>
</tr>
<tr>
<td>Meeting Times</td>
<td>MWF: 3pm – 4pm, T: 7pm – 9pm</td>
<td>Meeting Location</td>
<td>TBD</td>
</tr>
<tr>
<td>Prerequisite(s)</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Description</td>
<td>Study of the physical nature of objects in the universe and methods used by astronomers to understand them. Topics selected from basic laws of nature, the solar system, stars, nebulae, galaxies, and cosmology.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Transfer Library Course</td>
<td>Introduction to Astronomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textbook and/or Course Materials</td>
<td>Astronomy – OpenStax (Online Text)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Learning Outcomes</td>
<td>Students should be able to adequately express their understanding in solar astronomy, including the history of astronomy, the use of constellations (past and present), and the formation and current structure of the solar system, including the sun, planets, and other objects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important Deadlines</td>
<td>If you wish to drop your class(es), you must do so by August 26, 2022.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The withdrawal deadline is in October 2022 and will be announced once published by the University Registrar.

Dropping/Withdrawing from a class at your high school does not drop/withdraw you from your BSU Dual Credit class. Instructions for dropping/withdrawing can be found in the Dual Credit Student and Parent Handbook.
### How BSU Grade will be Calculated

Explain how students earn the BSU grade. **EXAMPLE:**

<table>
<thead>
<tr>
<th>ASTR 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams .................................................................................. 40%</td>
</tr>
<tr>
<td>Lab Reports ............................................................................. 30%</td>
</tr>
<tr>
<td>Projects .................................................................................. 15%</td>
</tr>
<tr>
<td>Quizzes ................................................................................... 5%</td>
</tr>
<tr>
<td>Homework ............................................................................. 10%</td>
</tr>
</tbody>
</table>

### How High School Grade will be Calculated

Same as above

### BSU Grading Scale

Ball State grading scale will be entered prior to the course starting

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
</tr>
<tr>
<td>A-</td>
<td>90-92.9%</td>
</tr>
<tr>
<td>A+</td>
<td>87-89.9%</td>
</tr>
<tr>
<td>B+</td>
<td>83-86.9%</td>
</tr>
<tr>
<td>B</td>
<td>80-82.9%</td>
</tr>
<tr>
<td>B-</td>
<td>77-79.9%</td>
</tr>
<tr>
<td>C</td>
<td>73-76.9%</td>
</tr>
<tr>
<td>C-</td>
<td>70-72.9%</td>
</tr>
<tr>
<td>D*</td>
<td>0-69.9%</td>
</tr>
</tbody>
</table>

### High School Grading Scale

Your high school scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
</tr>
<tr>
<td>A-</td>
<td>90-92.9%</td>
</tr>
<tr>
<td>A+</td>
<td>87-89.9%</td>
</tr>
<tr>
<td>B+</td>
<td>83-86.9%</td>
</tr>
<tr>
<td>B</td>
<td>80-82.9%</td>
</tr>
<tr>
<td>B-</td>
<td>77-79.9%</td>
</tr>
<tr>
<td>C</td>
<td>73-76.9%</td>
</tr>
<tr>
<td>C-</td>
<td>70-72.9%</td>
</tr>
<tr>
<td>D*</td>
<td>0-69.9%</td>
</tr>
</tbody>
</table>

### Schedule of Assignments

#### Fall 2022 Tentative Semester Schedule*

*When Naked Eye and Telescope Astronomy (Weather Permitting) Lab Times are not permitted by weather, the class will still meet in usual room

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PB&amp;Js and The Scientific Process</td>
<td>Introduction to Constellations (Uncle Al’s Kepler Star Wheel)</td>
</tr>
<tr>
<td>2</td>
<td>Light – What is it? (Introduction to Telescopes)</td>
<td>Spectral Lab</td>
</tr>
<tr>
<td>3</td>
<td>Telescope and Naked Eye Observations</td>
<td>Naked Eye Astronomy (Weather Permitting)*</td>
</tr>
<tr>
<td>4</td>
<td>Stellar Evolution and the HR Diagram</td>
<td>Naked Eye Astronomy (Weather Permitting)*</td>
</tr>
<tr>
<td>5</td>
<td>Solar System Formation and Structure, Gravity</td>
<td>Solar System Project (Work Time)</td>
</tr>
<tr>
<td>6</td>
<td>The history of understanding Planetary Motion</td>
<td>Naked Eye Astronomy (Weather Permitting)*</td>
</tr>
<tr>
<td>Week</td>
<td>Topic</td>
<td>Activity</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Earth’s Seasons</td>
<td>Seasons Lab</td>
</tr>
<tr>
<td>8</td>
<td>Lunar Origin and Phases</td>
<td>Lunar Phases Lab</td>
</tr>
<tr>
<td>9</td>
<td>The Sun and Nuclear Fusion</td>
<td>Sun Lab</td>
</tr>
<tr>
<td>10</td>
<td>Mercury and Venus</td>
<td>Rock Bingo Lab</td>
</tr>
<tr>
<td>11</td>
<td>Earth and Mars</td>
<td>Geological Time Scale Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Work Time)</td>
</tr>
<tr>
<td>12</td>
<td>Jupiter and Saturn &amp; their moons</td>
<td>Conditions for Life? Lab</td>
</tr>
<tr>
<td>13</td>
<td>Uranus and Neptune</td>
<td>Telescope Astronomy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Weather Permitting)*</td>
</tr>
<tr>
<td>14</td>
<td>NO SCHOOL – THANKSGIVING</td>
<td>NO SCHOOL – T-DAY</td>
</tr>
<tr>
<td>15</td>
<td>The Dwarf Planets, Asteroids, and Comets</td>
<td>Telescope Astronomy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Weather Permitting)*</td>
</tr>
<tr>
<td>16</td>
<td>Milky Way, Other Stars, and Exoplanets</td>
<td>Pluto Debate Day</td>
</tr>
<tr>
<td>17</td>
<td>Cosmology</td>
<td>Review for the Final</td>
</tr>
<tr>
<td></td>
<td>(Late Work Deadline)</td>
<td>Observation Notebook Due</td>
</tr>
<tr>
<td>18</td>
<td>FINALS WEEK</td>
<td>Extra Credit Due</td>
</tr>
</tbody>
</table>

**Classroom Policies & Information**

**Laptop Policy**

While in class or lab, please keep computer use restricted to classroom-relevant tasks. Laptops or tablets are required for lab sessions. Laptops or tablets are also required for some homework, quizzes, and other activities. Laptops or tablets are permitted but not required during class for note-taking or other class-related needs.

**Attendance Policy**

Students arriving after the start of class may receive a Tardy. Students arriving after 20 minutes (or not at all!) may receive an Absence. Student is responsible for all information missed due to not being present.

**Late Work Policy**

Late work is defined as work that is submitted more than 24 hrs late. Any work not submitted automatically is scored as a zero (0 pts.).

If work is submitted but it has been more than 24 hrs since it was due, the work will be graded with a 50% deduction of points in the gradebook, regardless of delay or reason.

Last day to submit late work will be the Friday BEFORE finals week. After this time, all zeroes (0 pts.) will remain and cannot be made-up or submitted for points.
<table>
<thead>
<tr>
<th><strong>Make-up/Re-take Exam Policy</strong></th>
<th>Make-up exams may only be taken if the student received an excused absence for the missed test. There are no make-ups for Labs. The lowest Lab grade will be exempted at the end of the semester.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dual Credit-High School Credit Policy Statement</strong></td>
<td>Students may choose to enroll in Ball State’s Dual Credit Program to earn college credit for ASTR 100, Introductory Astronomy: A Study of the Solar System and Beyond, from Ball State at a reduced rate of tuition ($250 flat rate). Students who are eligible for free or reduced lunch this academic year may enroll at no charge if verified by the school. To enroll in Ball State’s Dual Credit Program, students should have a 3.0 GPA on a 4.0 scale and complete the application &amp; registration process before the given deadline. Ball State will bill students via postal mail; no money should be submitted to the high school. College credit can only be earned during the semester (or, in the case of year-long classes, during the academic year) in which the student is enrolled. Late enrollments are not permitted. Whether college credit earned through dual credit courses will be accepted by another institution of higher education is determined by the college or university to which a student is seeking admission. Before enrolling through Ball State’s Dual Credit Program, students should check directly with that institution to determine if a course will be accepted and how it will be counted toward graduation requirements. <strong>Refunds will not be issued if Ball</strong></td>
</tr>
<tr>
<td><strong>BSU Student Rights and Responsibilities</strong></td>
<td><strong>State credits are not able to be transferred.</strong> In most cases, students will need to earn a C or better to transfer credit from Ball State to another institution. Grades of D or lower earned in Ball State Dual Credit courses are recorded on a student’s Ball State transcript but may not be able to transfer. The rigor of this course will be periodically reviewed by Ball State University faculty in an effort to maintain the high quality of education that each student receives. To learn more about Ball State’s Dual Credit Program, visit bsu.edu/dualcredit, call 765-285-1581 or email <a href="mailto:dualcredit@bsu.edu">dualcredit@bsu.edu</a>. <strong>The Dual Credit Student and Parent Handbook</strong> includes information regarding student qualifications, prerequisites, available courses, responsibilities, financial aid stipulations, transferability, withdrawal, refund and billing policies and more. It is important that you review the information contained in it.</td>
</tr>
</tbody>
</table>
| **Student Academic Ethics Policy** | Actions which include but are not limited to cheating, plagiarism, falsely claiming to have completed work, cooperating with another person in academic dishonesty, knowingly destroying or altering another student’s work, or attempting to commit an act of academic dishonesty that violates the Student Academic Ethics Policy (http://www.bsu.edu/associateprovost/academicethics).

The consequences of academic dishonesty are determined on a case-by-case basis by each instructor and may include but are not limited to one or more of the following academic sanctions: informal meeting, removal from dual credit course, dismissal from the university, or other appropriate consequence. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy on the Americans with Disabilities Act (ADA)</strong></td>
<td>If you need course adaptations or accommodations because of a disability, please contact the Office of Disability Services. The Office of Disability Services coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability services can be contacted at 765-285-5293 or <a href="mailto:dsd@bsu.edu">dsd@bsu.edu</a>.</td>
</tr>
<tr>
<td><strong>Title IX – Sexual Misconduct</strong></td>
<td>Ball State University is committed to establishing and maintaining an effective, safe, and nondiscriminatory educational environment in which all individuals are treated with respect and dignity. For information about Ball State University’s Interim Title IX Policy and Procedures, please visit our website. Please note that the University’s policy and procedures have undergone significant revisions starting with the 2020-21 school year and ongoing.</td>
</tr>
</tbody>
</table>

Consistent with the University’s Notice of Nondiscrimination and in accordance with the U.S. Department of Education’s implementing regulations for Title IX of the Education Amendments of 1972 (“Title IX”), Ball State University prohibits sexual harassment that occurs within its education programs and activities. This prohibition extends to all applicants for admission or employment and to all students (any status) and all employees (any status). An individual who is found to have committed sexual harassment in violation of this policy is subject to the full range of University discipline, up to and including termination of employment or expulsion. The University will provide persons who have experienced sexual harassment with ongoing remedies as reasonably necessary to restore or preserve access to the University’s education program and activities. Inquiries concerning the specific application of Title IX at Ball State should be directed to Ms. Katie Slabaugh, Associate Dean of Students/Title IX Coordinator in the Frank A. Bracken Administration Building, room 238, 765-285-1545, kslabaugh@bsu.edu. Persons can also contact the U.S. Department of Education Office for Civil Rights, Washington, D.C. 20202-1328, 1-800-421-3481, ocr@ed.gov.
| **Diversity Statement** | Ball State University aspires to be a university that attracts and retains a diverse faculty, staff, and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our Beneficence Pledge and through university resources found at [http://cms.bsu.edu/campuslife/multiculturalcenter](http://cms.bsu.edu/campuslife/multiculturalcenter). |
| **The Learning Center** | The Learning Center offers free Tutoring and Academic Coaching for many courses at Ball State. Students can make appointments for online (Zoom) or in-person (NQ 350) appointments. Unvaccinated students are required to wear masks and practice physical distancing in the Learning Center.  

To make an appointment, visit my.bsu.edu and click on “TutorTrac” in the Additional Tools section, or just go directly to [https://ballstate.goredrock.com](https://ballstate.goredrock.com).  

Testing accommodations for students with disabilities are available for students who have received the appropriate documentation from Disability Services. Tests may be administered in the Learning Center.  

Supplemental Instruction is available in select courses. If you have an SI leader for your course, that person will provide students with information the first week of school regarding weekly study sessions.  

For more information about all of our programming, visit [bsu.edu/learningcenter](http://bsu.edu/learningcenter) or call 765-285-1006. |
| **The Writing Center** | All writers improve with practice and feedback, so as a student in this course, you are encouraged to use the Writing Center (in Robert Bell 295, Bracken Library, or online) to get additional feedback on your writing. To schedule a free appointment to discuss your writing, go to [www.bsu.edu/writingcenter](http://www.bsu.edu/writingcenter). Online and in-person appointments are available seven days a week; however, plan ahead because appointments book quickly! |
| **Syllabus Change Policy** | This syllabus is a guide to the course and may be subject to change with reasonable advanced notice as course needs arise. |