Wright College
Astronomy 201-KM Course Syllabus
Spring 2014

COURSE IDENTIFICATION

Course Number:	Astronomy 201-KM IAI # P1 906
Course Name:	Descriptive Astronomy
Course Location:	S337
Class Times:	Mon & Wed 4:30 – 6:00pm
Prerequisites:	Eligibility for English 101, or grade of C or better in English 100, or Consent of Dept. Chairperson

INSTRUCTOR INFORMATION

Instructor:	Dr. Andrew Kruger
Office Location:	L389, Tel. (773) 481-8384
Email:	akruger@ccc.edu
Office Hours:	Mon & Wed 10:00 – 10:30am
Dept. Secretary:	L378, Tel. (773) 481-8377

COURSE RESOURCES

Required Text:	Horizons: Exploring the Universe. Michael A. Seeds. 12th Edition, International Thompson Publishing. ISBN: 978-1-1114-3020-7
Course website:	http://ccc.blackboard.com http://akruger.weebly.com (If asked for a password to access anything, use "wright")
Materials:	Notebook and paper for notes.

COURSE DESCRIPTION

Catalog Description: Descriptive survey of major astronomical facts, concepts and relationships, starting with the solar system to stars, galaxies, and cosmogonies. Writing assignments, as appropriate to the discipline, are part of the course.

Objective: To give the student an understanding of the important topics in astronomy including the patterns of motion found in the sky and the structure and properties of planets, stars, and galaxies. Also, the student will gain a basic background in the physics that forms the foundation of astronomy. This course is expected to serve students working towards an AA or liberal arts degree who need to fulfill a 3 credit hour physical science requirement.

Method of Instruction: The format will be a combination of direct instruction lecture style, followed by activities like cooperative learning, and internet use for visual demonstrations.

CLASS WORK

Homework: Homework is assigned and completed on-line at http://ccc.blackboard.com. Each homework assignment can be found under "Assignments". You may start a homework assignment and come back to it later by choosing "Save" rather than "Submit". Once submitted, the homework can no longer be worked on. The homework assignments must be submitted on-line by midnight, the evening of the dates given in the calendar. After the due date, students will be able to see which problems they answered correctly/incorrectly. They may then choose to redo the homework, in which case their score will be the average of the two tries. The redo must be submitted by midnight the evening of the re-due date given on the calendar. After the re-due date, correct answers to the questions will be made available to the students. *Late homework will not be accepted*.

In-class Activities: Several in-class activities will be given throughout the semester. While activities will likely be finished in class, they are due the following class period. If they are turned in late, they will be deducted 20%. *These activities will not be accepted after the following exam in which the material is covered.* If students miss an in-class activity, they may do it outside of class.

Out-of-class Activity: An activity that involves an astronomical or scientific experience outside the classroom must be fulfilled, and a report must be handed in describing the experience. More information will be given in class.

CLASS PARTICIPATION

Students are expected to participate in class activities and discussions, and will be required to sign in with the electronic response clickers or a sign-in sheet in order to receive full credit for the day. If students forget to sign in, they will not receive credit for that day. Students will lose half the day's participation credit if they are more than 5 minutes late or leave early from class without prior permission from the instructor.

EXAMS

Exams: There will be four unit exams. The exam with the lowest score will be dropped, so only three exams will count toward your final grade. *Exams cannot be made up, regardless of the reason.* In the case that a test is missed, it will be the score that is dropped. Exams must be finished within the class period they are given.

Exit Exam: There will be an exit exam for this course prepared by the department which students are required to pass in order to pass the class. It will also count toward their final grade. If a student does not pass the Exit Exam and is not failing the class, they may take the Exit Exam Appeal.

METHODS OF EVALUATION

Weighted Grading: Students will be evaluated according to the following weighted formula:

3 Exams	45%
Exit Exam	15%
Homework	15%
In-class Activities	10%
Out-of-class Activity	10%
Class Participation	5%

Grade Scale: Final grades will be computed according to the following scale:

$85\% \leq A \leq 100\%$
$75\% \leq B < 85\%$
$60\% \leq C < 75\%$
$50\% \leq D < 60\%$
$0\% \leq F < 50\%$

EXPECTED OUTCOMES

Learning Outcomes: Upon successful completion of this course, students will be able to:

1. Describe and explain the motions of the sun, the moon, the planets, and the stars.
2. Summarize the scientific method and its application to early problems of astronomy.
3. Discuss the detection and uses of electromagnetic radiation in astronomical research.
4. Discuss the structure and formation of the solar system and its planets, major moons, comets, and asteroids.
5. Classify stars according to their luminosity and temp.
6. Discuss the structure and evolution of stars from birth to death.
7. Describe the structure of the Milky Way galaxy.
8. Apply astronomical knowledge to example problems.
9. Demonstrate literacy using concepts in astronomy in the context of experience outside the classroom.
10. Solve problems in astronomy with gathering of experimental data.
11. Demonstrate competency of individual chapters covered in this course.
12. Complete independent study on course topics.
13. Identify career opportunities available in astronomy.
14. Effectively use terms, think critically, and solve problems.
15. Demonstrates motor and thinking skills necessary to working directly with the physical environment.

Specific Learning Objectives: The purpose of this class is:

1. To give the student a background in the history of astronomy.
2. To understand the motions associated with the sun, moon, plants, and other celestial objects.
3. To give the student a background in the development of Newton's Laws and astronomical discoveries in the renaissance.
4. To understand properties of light and telescopes.
5. To understand the nature of the solar system.
6. To learn the structure and properties of both the earth and moon.
7. To learn the structure and properties of Venus, Mars, and Mercury.
8. To learn the structure and properties of Jupiter, Saturn, Uranus, Neptune, and Pluto.
9. To give the student a basic understanding of comets and asteroids.
10. To learn about the structure and properties of the sun.
11. To understand observational properties of stars.
12. To learn about the structure of stars.
13. To give the student the knowledge about stellar life cycles.
14. To introduce the various forms of stellar remnants.
15. To understand the structure of the Milky Way galaxy.

COMMUNICATION

Any announcements about the course will be made in class as well as through the "Announcements" section of Blackboard. It is the responsibility of the student to update their email on Blackboard so they will receive any course announcements. Changes to the calendar will be announced, and an updated calendar will be uploaded to akruger.weebly.com. If students have any questions or concerns, please feel free to email the instructor at akruger@ccc.edu. While the instructor will always try to respond in a timely manner, be warned that any emails sent in the evening may not be received until the following day.

CLASS POLICIES

Classroom Etiquette: Please turn off or silence your cell phones. Food is not allowed in the classroom. Students should maintain a respectful environment for their fellow classmates. Disruptive behavior will not be tolerated and may lead to the student being dismissed from the class.

"No Show" Policy: If a student registered for the course before the start time of the first class period but is absent from the first two class sessions, and has not contacted his/her instructor of intent to pursue the course, he/she will have his/her registration canceled by the college and will be given NSW (no show withdrawal) status.

Active Pursuit: District and college attendance policies are listed in the college catalog and the Student Policy Manual: http://www.ccc.edu/departments/Documents/studentpolicymanual.pdf. Active pursuit of this course constitutes participation in 50% of 1) lectures, 2) homework, 3) quizzes and 4) exams. It also requires the successful completion of 50% of laboratory experiments, where completion refers to attendance, full participation, and submission of a report. *A student who is not actively participating in any one of the areas described above can be dropped at the mid-term and receive a grade of ADW.*

UNIVERSITY POLICIES

Disabilities: Any student with a disability, including a temporary disability, who is eligible for reasonable accommodations should contact the Disability Access Center located in room L135, Learning Resource Center of the Wright North Campus or call (773) 481-8016 as soon as possible.

Academic Integrity: The City Colleges of Chicago is committed to the ideals of truth and honesty. In view of this, students are expected to adhere to high standards of honesty in their academic endeavor. Plagiarism and cheating of any kind are serious violations of these standards and will result, minimally, in receiving a zero for the assignment. In the case of multiple offenses or cheating during an exam, the student will receive a grade of "F" for the course, and further disciplinary action may be taken.

Student Conduct: City Colleges of Chicago students are expected to conduct themselves in a manner which is considerate of the rights of others and which will not impair the educational mission of the College. Misconduct for which students are subject to College Discipline (e.g. expulsion) may include the following: (1) all forms of dishonesty such as stealing, forgery, (2) obstruction or disruption of teaching, research, administration, disciplinary proceeding, (3) physical or verbal abuse, threats, intimidation, harassment, and/or other conduct that threatens or endangers the health or safety of any person, and (4) carrying or possession of weapons, ammunition or other explosives.

SUPPORT SERVICES

Wright College is committed to your success. Below you will find a list of offices you may wish to contact during the semester for assistance:

Academic Support Center (Tutoring)	Room A-245
Center for Academic Success (Advising)	Room A-120
Writing Center (for help with papers)	Room L-212
Wright in Your Corner (Student Center)	Room S-100
Financial Aid	Room A-128
Business Services	Room A-138
Math Tutoring	Room L-125 or L-300
Wellness Center (Personal Counseling)	Room S-132 - (773) 481-8634