### Distance Learning Form

This form must accompany <u>every</u> submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. All fields are required!

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, distance learning is defined as a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies.

A number of specific requirements are listed for DL courses. The department proposing the change in delivery method is responsible for ensuring that the requirements below are satisfied at the individual course level. It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience for students utilizing DL (available at <a href="http://www.uky.edu/USC/New/forms.htm">http://www.uky.edu/USC/New/forms.htm</a>).

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Co	ourse Number and Prefix: AST 192 Date: November 30, 2009
145.4	Instructor Email: ron.wilhelm@uky.edu
Cl	heck the method below that best reflects how the majority of course of the course content will be delivered.  Internet/Web-based  Interactive Video  Hybrid
	Curriculum and Instruction
•	How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?
	This course will be taught online, with pre-recorded lectures, online exercises and exams. The instructor will offer regular office hours for online chat, or telephone contact if needed, as well as open email access. The
	How do you ensure that the experience for a DL student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to that of a district of the student is comparable to the student i
	The course plan is very similar to the in class experience, which consists mainly of lecture presentations, online homework and in class exams. The students will work with the textbook in essentially the same way as the in
<u> </u>	class student.  How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.
	The course will be offered through Blackboard or other similar online classroom management software, ensuring that each student has individual protected access to the course materials. Online assignments are ensuring that each student has individual protected access to the course materials.
1.	Will offering this course via DL result in at least 25% of at least 30% (based on total or completion) of a degree program being offered via any form of DL, as defined above?
	No.
	If yes, which percentage, and which program(s)?
	*As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through D
	The standards tobing the course via () Assured of equivalent access to standard
5.	How are students taking the course via DL assured of equivalent course.  Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Program

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As registered students at UK, they will have access to the full range of student services as outlined on the UK Student Affairs website (http://www.uky.edu/StudentAffairs/_). Students will also be provided an electronic copy of the attached "UK Student Academic Services" document.  **Elbrary and Learning Resources**  6. How do course requirements ensure that students make appropriate use of learning resources?  Successful completion of course requirements will require that the students make appropriate use of the textbook and required internet sites, and access to library resources are available on the library website for distance learning (http://www.uky.edu/Libraries/lib.php?lib_id=16).  7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the
6. How do course requirements ensure that students make appropriate use of learning resources?  Successful completion of course requirements will require that the students make appropriate use of the textbook and required internet sites, and access to library resources are available on the library website for
Successful completion of course requirements will require that the students make appropriate use of the textbook and required internet sites, and access to library resources are available on the library website for textbook and required internet sites, and access to library resources are available on the library website for
course or program.  This course will not require physical access to any particular facility or equipment.
8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entit available to offer technical help with the delivery and/or receipt of the course, such as the Teaching and Academic Support Center ( <a href="http://www.uky.edu/TASC/index.php">http://www.uky.edu/TASC/index.php</a> ) and the Information Technology Customer Service Center ( <a href="http://www.uky.edu/UKIT/">http://www.uky.edu/UKIT/</a> ?  The syllabus lists technical support services available and students will be provided with a list of available University resources.
9. Will the course be delivered via services available through the Teaching and Academic Support Center?  Yes No If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

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10.	Does t	he sy	llabus contain all the required components, below? 🔀 Yes					
		☐ Instructor's virtual office hours, if any.						
		☐ The technological requirements for the course.						
	☐ Contact information for TASC ( <a href="http://www.uky.edu/TASC/">http://www.uky.edu/TASC/</a> ; 859-257-8272) and Information Technology Customer Service Center ( <a href="http://www.uky.edu/UKIT/">http://www.uky.edu/UKIT/</a> ; 859-257-1300).							
			cedure for resolving technical complaints.					
	☐ Preferred method for reaching instructor, e.g. email, phone, text message.							
	☐ Maximum timeframe for responding to student communications.							
		Lan	guage pertaining academic accommodations:					
		0	"If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or <a href="mailto:ikarnes@email.uky.edu">ikarnes@email.uky.edu</a> ."					
			ormation on Distance Learning Library Services ( <a href="http://www.uky.edu/Libraries/DLLS">http://www.uky.edu/Libraries/DLLS</a> )  Carla Cantagallo, DL Librarian					
		0	Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)					
		0	Email: dllservice@email.uky.edu					
		0	DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16_					
11.	I, the i	nstru	ctor of record, have read and understood all of the university-level statements regarding DL.					
:	Instructor Name: Ronald Wilhelm Instructor Signature: 12/2/2014							

### SIGNATURE ROUTING LOG

General Information:					
Proposal Type: Course	Pro	ogram 🔲	Other 🗌		
Proposal Name <sup>1</sup> (course p		pgm major & degree	e, etc.): <u>AST 192 DL</u>		
Proposal Contact Person N	see res	pective Phone	Email:		
Identify the groups or person for eac	individuals revie h entry; and obta	INSTRUCTIONS: wing the proposal; i ain signature of pers	note the date of approval; o on authorized to report app	ffer a contact proval.	
Internal College Approvals	and Course Cros	s-listing Approvals:			
Reviewing Group	Date Approved		n (name/phone/email)	Signature	
Physics & Astronomy	//09	Tim Gorringe / gorringe@pa.uky.edu / 7- 4991			
A&S Associate Dean	12/09/09	Ted Schatzki / schatzki@uky.edu / 7-5821			
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External-to-College Approv	als:				
Council		Date Approved	Signature	Approval of Revision <sup>2</sup>	
Undergraduate (	Council				
Graduate Cou	ıncil		· · · · · · · · · · · · · · · · · · ·	! !	
Health Care College	es Council				
Senate Council A	pproval		University Senate Approv	<i>r</i> al	
Comments:			•		

<sup>&</sup>lt;sup>1</sup> Proposal name used here must match name entered on corresponding course or program form.
<sup>2</sup> Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the

### Stars, Galaxies and the Universe AST 192-229 Online Course Summer 2010

Instructor:

Ron Wilhelm

Office:

Chemistry-Physics (CP) Room 275

E-Mail:

ron.wilhelm@uky.edu

Telephone:

806-543-9245 (cell phone)

Office Hours:

I will be checking my email periodically during the week, Monday through Friday and occasionally on the weekend. I will reply to your emails within a 24 hour period. If you need a quicker response or you would prefer to discuss a question verbally you call my phone anytime.

Class Time and Location:

Section 229: ONLINE: go to: MyUK and log into Blackboard using your LINK BLUE username and password.

Minimum Technology Requirements:

In o rder to participate in this course, you will need access to a computer with the minimum hardware, software and internet configuration described at this site: http://wiki.uky.edu/blackboard/Wiki%20Pages/FAQs.aspx.

Note: the use of Internet Explorer is NOT recommended for use with Blackboard. Firefox is the recommended Internet browser for the course.

You will need to install a number of plug-ins on your computer. The links to the specific plug-ins required for this course can be found in MODULE 1 of the COURSE MATERIALS section of the course. If using a UK computer these plug-ins should be already installed.

If you experience technical difficulties with accessing course materials, the Customer Service Center may be able to assist you. Their hours are 7am – 6pm Monday through Friday. You may reach them at 859-257-1300 or by e-mail at <a href="helpdesk@uky.edu">helpdesk@uky.edu</a>. Please also inform the course instructor when you are having technical difficulties.

The **Teaching and Academic Support Center** (TASC), (<a href="http://www.uky.edu/TASC/">http://www.uky.edu/TASC/</a>) offers additional information and resources that can promote a successful distance learning experience. They may also be reached at 859-257-8272.

Text:

Required: Cosmic Perspective, The Stars, Galaxies, and Cosmology 6/E Edition by Bennett, Donahue, Schneider, Voit, packaged with Mastering AstronomyTM.

Addison-Wesley. ISBN-10: 0321642686

Electronic books can be purchased online at (http://www.coursesmart.com).

Printed Textbooks are available at:

Books may be purchased from the following stores.

- Kennedy Bookstore, 405 S. Limestone, (606) 252-0331 or 1-800-892-5165, or go to the website: http://www.kennedys.com
- Wildcat Text Books, 563 S. Limestone, (606) 225-7771, or go to the website: http://www.wildcattext.com
- UK Bookstore 106 Student Center Annex, phone (606) 257-6304 or 1-800-327-6141, or go to the website: http://www.ukbookstore.com

### Course Description

In this course we will be exploring the universe beyond the solar system. This will includes stars, star forming regions, dying and dead stars, various collections of stars, gas and dust, known as galaxies and collections of galaxies which compose the universe. We will develop tools, based in physics, which will allow us to convert observed properties of stars and galaxies into physical properties which can then be used to make predictions about objects we do not currently understand.

In this course we will be learning some facts and astronomical terms. However, the main concern in this course is to think scientifically. This means being able to synthesizing ideas and apply them to novel situations. This course will be mostly concerned with understanding concepts and far less concerned with memorization of facts.

# Expected Learning Outcome (What you should know by the end of the course)

- 1) You should have a basic understanding of the astronomical objects, such as stars, nebula, galaxies, and large scale structure.
- 2) Virtually all measurements in astronomy are made through the analysis of electromagnetic radiation ("light"). You will learn properties of light, the atoms that generate the light and physical conditions which affect the properties of light.
- 3) We will develop an understanding of the observables that are used in the determination of physical properties of astronomical objects. This understanding will be developed by integrating the knowledge of atoms and light from Objective #2 with the observed data received at observatories around the world.
- 4) We will use the physical properties determined for a wide range of objects in order to determine formation and evolutionary processes at work across a large range of ages,

distances and environments.

5) By course end you should have the ability to apply physics concepts to an array of observables from novel objects and be able to predict important physical processes which are occurring in the objects.

### Disabilities/ Medical Conditions:

If you have a documented disability that requires academic accommodations, please see me as soon as possible. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

All course materials are on-line and it is YOUR responsibility to access material in a "Attendance": timely manner. To help keep you on track I have provided a LECTURE SCHEDULE that you should follow. The lecture schedule is posted on BlackBoard in the COURSE INFORMATION section of Blackboard. You are expected to participate in on-line discussions for each homework assignment.

Reading Assignments:

Reading assignments are listed on the lecture outline. All assigned readings are potential exam material whether covered online, or not.

# Getting Started: Log into your Blackboard (Bb) account

- 1) Access the course syllabus: The course syllabus can be viewed by clicking on the red COURSE INFORMATION button and then clicking on SYLLABUS. I would recommend you print out a copy of the syllabus for future reference. Make a note of all deadlines.
- 2) You should check that the e-mail address listed for you is your current e-mail address (it does not have to be a UK address just the e-mail that you regularly use). If it is not your regular e-mail address, then change it to your current address (except for HOTMAIL accounts which sometimes aren't compatible with Bb) and click submit. This is the address that I will use to communicate with you. (go to TOOLS to change your e-mail address)
- 3) This is a 3 credit hour course taught exclusively through the web. All course materials are on-line and it is YOUR responsibility to access material in a timely manner. To help keep you on track I have provided a LECTURE SCHEDULE that you should follow. The lecture schedule is posted in the COURSE INFORMATION just below the syllabus. Again, I would recommend you print it out. This is a difficult course and it is imperative that you stay up-to-date with the

lecture material. Do not procrastinate and leave material to the last minute. Take some time to familiarize yourself with navigating through the course material. The course is divided into 19 modules (found by clicking on the red COURSE MATERIALS button). Each module consists of multiple files. These files are in a variety of forms: Adobe Flash Player, PowerPoint, word documents, web links, Authorware files, etc. As you work through the course materials you should take notes the same way you would for a "regular" lecture course.

- 4) Please be aware that some files that you will be downloading are fairly large and may take a while (several minutes) to download especially if you are accessing the course material using a modem or a slow broadband connection.
- 5) Given that all course material is delivered through the Internet, occasional problems may arise with accessing course material. If you have problems accessing course material, or if web links appear to be not functioning, please contact me and I will get the problem rectified as quickly as possible.
- 6) Recommended first actions:
  - (1) Print out a copy of the syllabus and lecture schedule
  - (2) Do the VARK questionaire (link in module 1)
  - (3) Begin work on module 1 (if working on your home /dorm computer download all of the plug-ins listed in module 1).

#### Grading:

Class Participation / Homework	25%
Weekly Quizzes	15%
Exams (20% each)	40%
Final Exam	20%

The grade scale will be a typical, 90-100 (A), 80-89(B), 70-79(C), 60-69(D), below this, an F.

### Class Participation / Homework

Throughout the term you will be given homework assignments related to the course. In order to receive full credit for these assignments your must participate in on-line discussion of the homework for each assignment and turn in an electronic copy of the homework solutions. It is important to participate in the on-line discussion even if you know the answers for the homework because you can then help to explain important concepts to other members of the class. In so doing, you will find that you learn the material at a deeper level.

There will also be graded participation in the form of questions that you must answer as you work through each module. These answers will be recorded in terms of participation, but NOT graded in terms of right/wrong answer.

Finally, there will be several tutorial assignments throughout the term given from the MasteringAstronomy package which will come with your text book. These assignments allow you to interactively change parameters in order to see how various astronomical parameters are found and used in astronomy. The tutorial component will also be recorded based on participation.

#### Quizzes

Twelve quizzes will be given during the term. Only eight quizzes will count toward your final grade. This means that only the top eight quiz scores will be tallied into your final grade and the lower scores will be dropped. The quizzes will be scheduled with two a week excluding the first week of the course. On weeks with scheduled exams only one quiz will be given.

#### Exams 6

We will have two exams during the term. These exams will be multiple choice and will cover the material that we have been studying in class. Although the questions are multiple choice the test will be very conceptual and should really be considered problems instead of questions. Each question will contain several conceptual ideas that you must combine together. The exams will have 10 questions and the answers choices will be in the form of a short essay. It is also the case that the material learned at the start of the course will be needed at the end of the course, so I expect you to be able to answer topics from exam #1 on exam #2 and on the final.

#### Final Exam

The final exam will be comprehensive and cover all the topics discussed in class.

#### Examination Schedule: (all times are Lexington, KY time)

Examination 1: Wednesday, June 30th 2010 from 7:00 pm – 10:00 pm

Examination 2: Wednesday, July 21st July 2010 from 7.00pm - 10.00pm

#### MISSED EXAMINATIONS

Make-up exams (for missed examinations) will only be given for <u>DOCUMENTED</u> excused absences <u>as defined by the University (Senate Rule V.2.4.2)</u> and are scheduled as needed. A missed exam will result in a score of zero for that exam, unless an acceptable written excuse is presented within 48 hours of the missed examination.

Check the Information on Examinations in the ASSIGNMENTS AND EXAMS section of Blackboard to confirm the topics/chapters covered on each examination.

#### ONLINE EXAMINATION INFORMATION

The <u>online examinations</u> will be submitted electronically through Blackboard and must be submitted by the stated deadline (10:00pm). Each examination will consist of 50 multiple-choice or true/false questions. The examination will be available for 3 hours before the due date/time. It is your responsibility to make sure that you access the material during that time period. You can access the examination any time during the 3 hour window but you can only access it once. Once you access an examination you have 50 minutes in which to complete and submit it (the latest you should access an online examination is 8.00am). If you go over the time you will not be able to submit it and will receive an automatic score of zero for that examination. It is your responsibility to watch the time and submit the examination in time.

On-line examinations are closed book. You cannot use your text book or note books during the exam, or receive assistance from other people.

Online examinations will be automatically graded and your score will be available immediately.

<u>If you encounter problems when taking an exam</u>: First try calling me at 806-543-9245. If you are unable to contact me by phone: send me an e-mail and include a phone number where you can be reached. I will contact you ASAP.

#### Academic Offenses:

PLAGIARISM and CHEATING are serious academic offenses.

The following is an excerpt taken from the "Students Rights and Responsibilities Handbook, University of Kentucky" regarding cheating.

"Cheating is defined by its general usage. It includes, but is not limited to, the wrongful giving, taking, or presenting any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final grade."

The following is an excerpt taken from the "Students Rights and Responsibilities Handbook, University of Kentucky" regarding plagiarism.

"All academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work...... If the words of someone else are used, the student MUST put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic."

Charges of an academic offense will be made against any student that cheats or commits

plagiarism. Penalties for such an offense will be assessed according to University Regulations regarding Academic Offenses. The most severe penalties include suspension or dismissal from the University. <u>I have a zero-tolerance policy regarding academic offenses.</u>

NOTE\* In addition to the circumstances listed above, the following activities are considered evidence of cheating:

- 1) Any talking to another student during an examination.
- 2) Looking at another students work during an examination, or allowing another student to look at your work.
- 3) Collaborating with another student on an examination and/or submitting an assignment that is similar in wording or sentence construction to the work of another student in the class, even if you acknowledge the participation of the other student. ALL SUBMITTED WORK MUST BE DONE BY YOU ALONE.

#### **Student Conduct**

Students are expected to maintain decorum that includes respect for other students and the professor, to regularly log in to the course, and to display an attitude that seeks to take full advantage of the educational opportunity. All students are expected to be prepared to work and actively participate in class activities