Mt. San Antonio College
DISTANCE LEARNING COURSE AMENDMENT FORM (REQUIRED)

Process Flowchart
(for new DL courses or amendment of existing traditional courses)

For existing courses, obtain (from ICCIS) and attach to this form:
- course description
- current course outline
- measurable objectives
- methods of evaluation and sample assignments

Course information must have been updated within the last four years

For new courses, create and attach to this form:
- course description
- current course outline
- measurable objectives
- methods of evaluation/sample assignments

Obtain DL Course Amendment Form
↓
Meet with Distance Learning TEAM for mentoring during development phase
↓
Complete online teaching certification process
↓
Complete DL Course Amendment Form
↓
Present course website to Department for tentative approval
↓
Meet with Distance Learning TEAM for any modifications to course
↓
Department Approval, Chair signature
↓
Division Approval, Dean signature
↓
Educational Design Committee Approval
↓
Instruction Office - assigns special designator
↓
Placement in Mt. SAC schedule
↓
Course is offered
↓
Stipend is paid to faculty for *first time development

*The first DL course that is developed by a faculty member results in a stipend being paid to the faculty member in the amount of $1000 after the course is offered and taught by that faculty member. Subsequent course(s) and web development does not result in any further stipend. Training, workshops, and resources are available for faculty from Online Learning Support Center and Staff & Organizational Learning.
Mt. San Antonio College
DISTANCE LEARNING COURSE AMENDMENT FORM
(REQUIRED – fill in blanks only)

Course Title: Introduction to Astronomy

Prefix/Number: ASTR 5

Developer: Julie Bray-Ali

Date: 4/25/06

Department: Earth Science and Astronomy

Course Content:
Course content of this Distance Learning course must match the approved curricula (course topics, measurable objectives) for the regular course, currently on file. The faculty member submitting this amendment and his/her Department are responsible for reviewing the Distance Learning course content to see if the course outline and measurable objectives may be achieved in the Distance Learning mode selected. To achieve this match, obtain a copy from ICCIS of the current curriculum for the regular course (or create a new curriculum for a new course). Attach that information to this document. In addition, all distance learning course content must be accessible to students with disabilities. For aid in developing accessible course materials, contact Disabled Students Programs and Services.

Delivery:
Any Mt. SAC course that replaces seat time with online learning must have this Form completed and approved. The State of California defines a Distance Learning course as one in which the student's seat time has been replaced at least 51% of the time by distance learning. Mt. SAC’s distance learning courses (online and hybrid) are courses that have regularly scheduled replacement of seat time, and are published accordingly in each Mt. SAC Schedule. What percentage of seat time will be replaced by distance learning in this course?

51 - 100%

Meet with the Online Learning Faculty Mentor (x6614) in order to begin the process of adapting traditional course components for online delivery. Some measurable objectives may not be feasible in the DL mode, and the developer may then plan for a hybrid delivery instead of a strictly online delivery mode. Use the tables provided in Supplemental Information on the Methods of Instruction and the Course Weekly Schedule of Activities below to begin the transformation to online learning components and their delivery. Also, begin development of a course web site to deliver the course materials to students. After the course web site is developed, the new course delivery and web site can be presented to the department for their approval.

Course Information:
Develop a course web site for your distance learning students to use during the course. If you need help in creating web pages, contact the Online Learning Support Center at x5016 or the Online Learning Faculty Mentor (x6614) for assistance. A well-developed course web site should include:

- Course outline (of record)
- Learning objectives/outcomes
- Syllabus
  - Schedule of weekly activities(assignments and deadlines)
  - Instructor contact information
Grading policy
Attendance policy
Make-up policy for missed work
Campus policies - add/drop, academic dishonesty, repeating courses
Departmental intervention plan for repeating of courses

• FAQs
• Student and instructor expectations
• Accommodations for disabled students
• A variety of web-based learning materials
• Discussion forum (within or out of course web site)
• Interactive and relevant links to assignments or activities
• Site map
• Course web site organized around themes or chunks of information

Course web site address: _elearn.mtsac.edu/jbrayali/dl_astronomy5.asp_ ________________

(If a UserID and Password are required to view your web site, please provide that information to Kerry Stern, Dean of Library and Learning Resources, x5658)

**Student - Instructor Contact:**
Title 5 Regulations, and the California Board of Governors for the California Community Colleges, require that course quality standards are met (same as applied to traditional courses) and that regular, effective contact between the student and instructor are included in the design of the course. Please complete the following **Supplemental Information on the Methods of Instruction** and the **Course Weekly Schedule of Activities**, being as descriptive and specific as possible.

**Past Training and Certification:**

_X_ Web design workshops: ( _X_Mt. SAC ___Other ___frontpage___software)

_X_ Course management training: ( _X_ Mt. SAC ___Other Bb_System)

_____ Online courses: ( ____Mt. SAC ___Other ________________________Course)

_X_ *Date of Certification for online teaching (required): **Spring 2006**

_____ Other experience: ______________________________________________________

Do you have a computer that you will use to manage this course? Yes __X_ No _________

If yes, tell us about your computer: PC _X_ Mac ___ Year _2004_ Mt. SAC _X_ Yours ______

What additional equipment or software do you need to manage this course most effectively?

_____ Computer ______ Printer ______ FAX __X__ Other: Training on course management system
Software ____________________________________________________________
Course Management and Tools:
How will your course be delivered, managed, and maintained?

_ X__ FrontPage Web on Mt. SAC server _____ Web pages on another server
_____ WebCT _____ X_ Blackboard
_____ eCollege _____ Other ____________________

Instructional Design:
Some questions to consider, in the design of your course:

1. How will interaction(s) with the instructor and among the students be accomplished?

   **Real office hours in my office (if needed virtual office hour with smart board)**
   E-mail
   Voice mail
   **Discussion forum (New topic assigned weekly)**
   Group assignments
   PowerPoint lectures
   Internet assignments

2. What will make this interaction effective?

   • **Discussion forum** assigned weekly (to be done class wide)- Instructor is to post new topics, which are chosen and updated on discussion forum page weekly. The key concept of each discussion forum should help the students to understand some of the misconceptions about astronomy. Students are graded on participation. Instructor will post feedback on the discussion.

   • **Online quiz** weekly to help keep students on schedule - online quiz will be available for specific time period. Students can take the online quizzes multiple times so students can learn from their mistakes. Obviously, many students will have a perfect score, so this assignment is not to be more than 15% of their overall course grade. The grade is recorded in the online grade book and also available for students to see.

   • **Group assignment** weekly on discussion forum to keep students on schedule. This is like a worksheet that students will collaborate to complete. Group discussion forum will be used for this assignment. Assignment is to be done in specific time period (i.e. within one week). Students need to complete their reading, PowerPoint presentations for lecture and other online assignments before participating in this group work. This assignment will ensure that students understand the material before the group work is due and also if there are any unclear topics, students can help each other to clarify. Students will periodically share the progress on their assignment with instructor for input. This assignment is graded by the instructor, and everyone in the group will receive same grade.

   • **Star date or other online news report** - one page report on what they have learned by reading news or listening to short lecture on Star Date (3 min radio program). Students are expected to turn in the short report weekly via e-mail. This assignment will help students learn about the subject beyond what is covered in the text book. Part of the goal of this introductory astronomy course is to help students have an interest and appreciation for this subject. Having to read astronomy news or listening to short lecture will expand their astronomy knowledge! Short report is graded / recorded and comments are given back to students in timely manner. If an accommodation is requested, then this assignment will be given in an alternate format.
Additional **reading assignments** are assigned to students as the instructor finds interesting news in astronomy. Some of the concepts introduced in the article may be on the quiz or the exams.

**PowerPoint lecture presentations** are provided weekly to introduce students to new topics. Instructor will make PowerPoint presentations available for students every week. These lectures are to help students start studying for the particular topic, but nothing students need to be turn in upon completion.

3. What problems do you expect to encounter with these interactions?

Keeping up with assignments is the key and most difficult task on taking class online. Weekly quizzes, group assignments, Star Date reports are to help students stay timely on their study.

4. How will you enhance student learning through the use of the Internet?

Use online resources for assignments and research. Students are required to participate on group research / presentation project. Students are required to use at least 3 sources of information. Since there are many new discoveries and researches in astronomy, internet is a great source of information.

One of the assignments will be to visit nearby astronomy related facilities. Students will have some computer assignments that they complete by downloading software from CLEA program and download the instruction from their astronomy course website.

Students must write short reports and submit to the instructor on either news from various sources or from one of the short lecture (3 min radio program). This assignment is due every week and to be submitted to the instructor via e-mail.

Take online quizzes – keeping up with the assignments is a key component to a student’s success. Having weekly quiz will help keep students on schedule and not get behind on their work. Students must participate in at least 2 discussion forums (class forum for weekly topic for discussion and group forum to work on assignments and projects. Keeping a connection between the classmates and instructor is a very important component to students’ success in distance learning course. The discussion forum is a perfect place to keep in touch with fellow students and ask questions etc.

5. How will you handle assessments (exams, quizzes, etc.)?

Exams will be in class (or at the LAC), quizzes to be done online and individually. Weekly group assignments to be done in group discussion forum. Group project to be researched as a group and presented online or in class. Weekly discussion forum is to be graded on participation and content.

6. How will you handle students who need more attention?

The student is welcome to contact the instructor regarding any methods suggested above. They can visit the instructor in office hours, or attend one of the study sessions offered by an SI. for extra help on any topic that seems to be difficult for the student to grasp.

7. How do you plan to evaluate the effectiveness of this course?

Student success and information on how students are learning is just as important as in the traditional class. By having many interactive activities to be done individually and as a group will help promote
learning, and make it more solid and enjoyable. Periodically through out the course, students will be asked to provide input on the content and the delivery. Student feedback on the course will be important tool for the instructor to improve the course content in first few offerings of this course.

8. How do you plan to provide “alternate media” for students with disabilities?

If any component of this course needs special accommodation (requested by a student, through DSP&S), an alternate mode of instruction will be provided by the instructor to make this course accessible. The instructor will work with DSP&S to find the appropriate help for the individual situation of the student.

**Mt. SAC Student Resources:**
What campus resources will you or your students need for this Distance Learning course?

___ SOLAR: Skills for Online Learning – Assessment of Readiness  
(http://elearn.mtsac.edu/olsc/readiness)

__ X ___ Learning Resources (Library – http://library.mtsac.edu)

__ X ___ LTC/Learning Assistance Center (tutoring – http://ts.mtsac.edu)

___ Placement/Assessments (English, Math, Chemistry, etc.)

__ X ___ DSP & S accessibility adaptation

___ Other ________________________________________________

**Future Support and Certification Needed:**
What additional training or technical support will be needed to create this Distance Learning course?

Training on Course management systems.

IT to help me set up departmental smart board

To start the certification process for online teaching, contact the Online Learning Faculty Mentor at x6614.
**Supplemental Information on the Methods of Instruction in a Distance Learning Course**

Please use the table below to describe each method of instruction/learning that is to be used in this Distance Learning course. Use a unique abbreviation for each method listed, that later can be placed in the **Course Weekly Schedule of Activities** (following this table). Provide a detailed description of each method or activity, and clearly explain how a student will use this method. Also, indicate whether this activity is an active or passive learning method for the student. An example is provided. **This information will become a part of the official course information, so include all methods that may be used.**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Detailed description of method/activity</th>
<th>Active or Passive? (A or P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>Discussion Forum – Questions from the instructor will be posted in a Discussion Forum in the course web site. Students will be directed in their weekly schedule of activities in the course web site to the Discussion Forum questions, where there will be instructions for creating and posting an original message and a reply to at least one other student’s original posting. Instructions will include the suggested topic(s), research and reflection required before posting the original message, expected length of message, posting deadline, amount of credit for the posting, and instructions regarding late or missed postings.</td>
<td>A</td>
</tr>
<tr>
<td>Q</td>
<td>Online Quiz – students are to complete quiz within the appropriate time frame. Students will log into Blackboard to participate on this assignment. If alternate media is requested, it will be provided by the instructor.</td>
<td>A</td>
</tr>
<tr>
<td>AI</td>
<td>Additional reading assignments or activities from instructor – it could be from the text (appendix for additional reading) or online source of information (i.e. news from NASA site) This will be available to the students and announced to them in “announcements” section of their course website. This is a passive assignment. Students are to read, but nothing to be turn in. The content of the reading may be in the quizzes or exams.</td>
<td>P</td>
</tr>
<tr>
<td>G</td>
<td>Group assignment – to be done with group in class or online with use of group discussion forum for weekly assignments and group research. Work sheet for their group work will be available to the students weekly. Students are to collaborate and complete the work sheet while communicating using discussion forum. Group worksheet is turned into the instructor and to be graded as a group.</td>
<td>A</td>
</tr>
<tr>
<td>PP</td>
<td>Power Point Lecture Slides – Information will be given on Power Point files that students can read for information regarding a variety of projects, activities and concepts. New PowerPoint slides will be available for students to view every week. If alternate media is requested, it will be provided by the instructor.</td>
<td>P</td>
</tr>
<tr>
<td>F2F</td>
<td>Face to Face meeting time – This is to provide students with F2F meeting times. Instructor will provide materials and information needed for successful completion of assignments. Test will be given. Progress will be monitored.</td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>Assignments – Several assignments are given during the semester. Computer project – download appropriate software and complete project. (Asteroid project). 2 page research paper on news in astronomy. Deadlines, instructions, and amount of credit will be provided on the class web site.</td>
<td>A</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Detailed description of method/activity</td>
<td>Active or Passive? (A or P)</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>X</td>
<td><strong>Exams</strong> – 2 midterm exams plus a final exam will be given. The exams will be included on the course schedule in the syllabus. Details about the exams will be given on the syllabus and on the announcements page of the website. The exams will be multiple choice and true/false, and essay question. The exams will be administered and proctored in class or the Learning Assistance Center. The exams will be picked up and graded, and the grades will be posted on the grades page on the website. The exams will then be taken back to the LAC so the students can pick them up and review them. The announcements page will let the students know the time period in which the test may be taken, the chapters covered, the number of questions, and the amount of credit.</td>
<td>A</td>
</tr>
<tr>
<td>M</td>
<td><strong>Mandatory Orientation</strong> – Students must attend a 2 – 2.5 hour orientation, on campus, during which the instructor will orient the students to the class. The orientation will include going over the syllabus, both hard copy and online, a complete tour of the class web site, answering of student questions, attendance, and adding of new students.</td>
<td>A</td>
</tr>
<tr>
<td>P</td>
<td><strong>Presentation</strong> – Students will present in class or online the finish product of their group work.</td>
<td>A</td>
</tr>
<tr>
<td>SD</td>
<td><strong>Star Date (radio program from McDonnald Observatory)</strong> - students listen to one program each week and write comments on what they have learned. Submitted to the instructor via e-mail before the end of the week each week. Students can listen to the program on local NPR or download to their MP3 player. If alternate media is requested, it will be provided by the instructor.</td>
<td>A</td>
</tr>
<tr>
<td>IC</td>
<td><strong>Initial Contact</strong> - If the course is 100% online or there is no mandatory meeting scheduled, then the initial contact with the students will be via e-mail. Students are required to have an active Mt. SAC e-mail and check their Mt. SAC e-mail one week before the course starts.</td>
<td>A</td>
</tr>
</tbody>
</table>
## Course Weekly Schedule of Activities

Enter the information from ICCIS, the traditional method of course content delivery, and the abbreviations used from the above table on the DL course delivery in the appropriate box below. Estimate a student’s time on task expected for each activity listed.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic(s) Covered (matches ICCIS)</th>
<th>Traditional Course</th>
<th>DL Course</th>
<th>Estimated time on task (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and coordinate system</td>
<td>lecture and group assignment</td>
<td>IC, DF, G, M, SD, F2F</td>
<td>5 hours</td>
</tr>
<tr>
<td>2</td>
<td>Cycle of the sky and nature of light</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, OQ, AI (if appropriate), DF, PPT, SD, A</td>
<td>5 hours</td>
</tr>
<tr>
<td>3</td>
<td>Telescope and spectroscopy</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, OQ, AI (if appropriate), DF, PPT, SD</td>
<td>5 hours</td>
</tr>
<tr>
<td>4</td>
<td>History of Astronomy</td>
<td>In class quiz, discussion, group research</td>
<td>G, AI (if appropriate), OQ, PPT, SD</td>
<td>5 hours</td>
</tr>
<tr>
<td>5</td>
<td>Formation of the solar system</td>
<td>In class quiz, discussion, group research</td>
<td>G, OQ, AI (if appropriate), DF, PPT, SD, A</td>
<td>5 hours</td>
</tr>
<tr>
<td>6</td>
<td>Exam1 &amp; Earth</td>
<td>In class exam, lecture and group assignment</td>
<td>X, G, DF F2F, SD</td>
<td>3 hours</td>
</tr>
<tr>
<td>7</td>
<td>Moon and Student group research project</td>
<td>In class quiz, discussion, group research</td>
<td>G, OQ, AI (if appropriate), DF , PPT, SD</td>
<td>5 hours</td>
</tr>
<tr>
<td>8</td>
<td>Continue with student research</td>
<td>In class quiz, discussion, group research</td>
<td>G, OQ, AI (if appropriate), DF, PPT, SD</td>
<td>5 hours</td>
</tr>
<tr>
<td>9</td>
<td>Presentation</td>
<td>Presentation</td>
<td>G, DF, P (computer assignment), F2F, SD</td>
<td>6 hours</td>
</tr>
<tr>
<td>10</td>
<td>The Sun</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, OQ, AI (if appropriate), DF, PPT, SD, A</td>
<td>5 hours</td>
</tr>
</tbody>
</table>
Course Weekly Schedule of Activities

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<th>DL Course</th>
<th>Estimated time on task (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Exam 2 and Nature of the stars</td>
<td>In class Exam, lecture and group assignment</td>
<td>X, G, DF, F2F, SD</td>
<td>3 hours</td>
</tr>
<tr>
<td>12</td>
<td>Birth and lives of the stars</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, OQ, DF, PPT, SD AI (if appropriate), A</td>
<td>5 hours</td>
</tr>
<tr>
<td>13</td>
<td>Death of the stars</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, OQ, DF, PPT, SD AI (if appropriate), A</td>
<td>5 hours</td>
</tr>
<tr>
<td>14</td>
<td>Galaxies</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, DF, PPT, SD AI (if appropriate), A</td>
<td>5 hours</td>
</tr>
<tr>
<td>15</td>
<td>Cosmology and SETI</td>
<td>In class quiz, lecture and group assignment</td>
<td>G, OQ, DF, PPT, SD AI (if appropriate)</td>
<td>5 hours</td>
</tr>
<tr>
<td>16</td>
<td>Final exam</td>
<td>Final Exam</td>
<td>X, F2F</td>
<td>2.5 hours</td>
</tr>
</tbody>
</table>
DISTANCE LEARNING COURSE AMENDMENT FORM

Verification of Process

The following steps must be signed and approved in this order.

1. **Distance Learning Team (faculty from Distance Learning Committee / OLFM)**

   Date: ___________________
   
   Signature: ____________________________________________________________
   
   Recommendations: ____________________________________________________
   
   ________________________________________________________________
   
   ________________________________________________________________

2. **Presentation to Department**

   **Department:** Approval _______ Denial _______ Date ________________
   
   Signature(s) ____________________________________________________________
   
   Recommendations: ______________________________________________________
   
   ________________________________________________________________
   
   ________________________________________________________________

3. **Division:** Approval _______ Denial _______ Date ________________

   Div. Dean Signature ______________________________________________________
   
   Reason for denial ________________________________________________________

4. **Educational Design Cmte:** Approval _______ Denial _______ Date ________________

   EDC Co-Chair Signature ___________________________________________________
   
   Reason for denial ________________________________________________________

5. **Date Received in Instruction Office:** ___________________________