KENT SCHOOL DISTRICT

High School Course Proposal Form

Available on KSD IS Home Page –
http://www.kent.k12.wa.us/KSD/IS/sic/HSICCoursePropForm.pdf

Course Title UW Astronomy 101

Initiator(s) Esther Munoz **School** Kentwood High School

I. NATURE OF CHANGE: ***(Mark all that apply)***

X New Course
_ Change in Prerequisites
_ Length of time offered *(e.g. 1-hour/2-hours)*
_ Semester Change
X Starbase Course Title **UW Astronomy 101**
_ Cross Credit _ Deletion of Course
_ Certificate of Academic Excellence
_ Change in Course Description
_ Change in title
Old title
New title
_ Change in Fees

II. RATIONALE FOR CHANGE:

A. Please describe the need for this course/change.
(Considerations might include graduation requirements, student interest, differentiation for student need, compliance issues)

* To meet the needs of students with strong interest in Astronomy, we would offer a one year course that goes beyond the Astronomy / Geology currently offered. UW Astronomy 101 would complement Astronomy / Geology by extending study beyond the Solar System to the Universe, learning some of the chemistry, physics and mathematics that explain movements of celestial bodies, compositions and life stages of stars and the modern theories of origins and possible futures of stars, galaxies and the universe.
* There are no AP courses for students who would like a more rigorous course in Astronomy.
* UW in the High School enables qualified high school students to complete college-level work in their own classroom with their own teachers. The high school teacher uses UW syllabi , teaching methods and evaluation rubrics. Most universities with Washington State and many out-of-state universities recognize UW credit.

B. Please describe the building process used for curriculum review which resulted in the development of this proposal. (Discussion at Curricular meetings, Curricular Leader meetings, or Building Leader Team meetings.)

Many students need or would like to take a science course beyond their tenth grade Biology, would like an alternative to Physics or Chemistry and have an interest in Astronomy. These are college bound students who most likely will not major in the sciences. The current offering of Astronomy / Geology attracts students who do not have the skills and interest required to achieve success in Chemistry or Physics but who need another science credit. With a third year of science required of students to graduate, these needs will grow.

As I have taught the Astronomy / Geology course over the past three years, I have come to recognize two very different clienteles in my classes: 1) students who need more time, basic science background and fundamental labs and activities for building understanding of Astronomy with high school reading level text and materials, 2) students with a solid science background

who are impatient with relearning basic skills and concepts who often have extensive Astronomy background and want to learn more. It is very difficult to meet the needs of both groups in one course and one classroom. I currently meet some of the needs of each group and feel continuously frustrated with the potential, but not the possibility, of providing a more positive and beneficial Astronomy experience for both groups. By adding UW Astronomy 101 to the KSD course offerings, I would be able to serve each group independently and meet a greater amount of each groups needs.

III. IMPACT STATEMENT:
The following areas represent the evaluation criteria applied to all course proposals. Please review and answer them carefully.

A. IMPACT ON YOUR CURRICULAR AREA
1. How does it change the current "balance" or proportion of curriculum offerings?
It would change the current "balance" by offering one year long (two semester) course to interested juniors or seniors who often are taking other college credited or AP courses that are also limited in numbers. Sensitivity to scheduling the course will be needed to permit as many students as possible to take as many of the these courses as they desire.

2. How does it affect the current course sequences within your curricular area?
This class will continue to be an elective or an alternative third year of science. As more students are required to take a third year of science, it simply will provide more choice and better serve a greater range of students.

3. Does it duplicate the content of a course currently offered in your curricular area?
No. Astronomy / Geology is a semester course and focuses on the Solar System and comparing the geologies of the various planets with Earth's geology. UW Astronomy 101 focuses on the universe and its structures It examines the origins, evolution and futures of the universe and its components. Some of the basic concepts of Astronomy will be included in both courses. However, UW Astronomy 101 will be able to provide greater depth of the underlying physics and chemistry.

4. Could technology enhance this course? If yes, please describe.
This is a college level course which requires college level research and access to technology for research purposes. Technology is also an instrumental tool in Astronomy used for study and analysis of new information.

B. IMPACT ON GENERAL STUDENT PROGRAM
1. How will it affect graduation requirements for students?
This course will offer a third year of science as an elective or as required for graduation. It will give college bound students the opportunity to take an Astronomy course that meets their intellectual needs, fulfills graduation requirements and gives them college credit without leaving their high school.

2. How will enrollment in this course impact other departments?
The main impact is that it is yet another choice to fill a limited slot of choice. Though most students will take this as a third year of science when that is required for graduation, there may be students who will choose to take it as an elective.

3. How might this course help prepare students for the successful completion of their high school culminating project?

Since this course offers the opportunity to earn college credit, students will also be encouraged to plan more of their post-high school academic plan.

C. IMPACT ON DISTRICT/STAFF RESOURCES

1. Do you have sufficient highly qualified staff to teach this course?

Yes, Esther Munoz is currently accredited as one of 5 UW Astronomy teachers in the high school in the Puget Sound region.

2. Do you have the necessary facilities, equipment, and materials?

Yes, we have appropriate facilities, equipment and materials.

3. Funding: Please complete section VI if necessary.

4. What is the anticipated enrollment in this course?

The UW requires a minimum of 16 students to be registered in the course. Currently there are over 150 students enrolled in the one semester course. In discussing the course with members of the Kentwood Astronomical Club and other students who are currently juniors, I predict that there will be enough interest to fill a full section of 30 students.

IV. COURSE DESCRIPTION:

Curricular Credit: UW Astronomy 101
Curricular Cross Credit _____IS Coordinator initial of approval ____
Course Credit Priorities. 1. Junior or Senior Standing 2. At least a B in 9th & 10th grade science classes

Graduation Requirement It will fulfill the 3rd year of science requirement

Eligible for NCAA Approval Yes X No _

Total Number of Credits 1.0

Repeatable: _ Non-repeatable X

Semesters: _ one X two

Intended Grade Level(s): All Grades _ 9th _ 10th_ 11th X 12th X
X General Education _ English Language Learner X College Prep

_ Special Education _ Core Intervention X Honors

_ Career & Technical Education Programs *CIP Code*

Prerequisites _ None X Yes (please list) At least a B in 9th & 10th grade science

V. ATTACHED DOCUMENTS:

X COURSE DESCRIPTION required for new courses (*New course description to be included in the course book, include old description as well for course changes if applicable and send description to Linda Reed electronically.)*

X COURSE SYLLABUS

X COURSE OUTLINE (new courses only) with units of instruction covered and time spent on each unit

_ EALRs/GLEs (new courses only)

_ RESOURCES (Attach documentation for recommended resources. including an IMC proposal form, vendor and estimated cost) The textbook adopted for Astronomy / Geology, The Cosmic Perspective is the same as the text required for UW Astronomy 101.

X COPIES OF TABLES OF CONTENTS FROM TEXTBOOKS AND/OR OTHER RESOURCES

VI. FUNDING REQUIRED:
• Signature(s) required from funding source
• After course approval all resource materials will be submitted by IS Coordinators to the Instructional Materials
Council (IMC) for review and submission to the Board for approval prior to purchase.
• Attach a list of items needed. Include specific title, vendor, cost, etc.

VII. The following original signatures are required and indicate that these individuals have reviewed this proposal:
Building Level: (all signatures required) **Signatures**
Building Principal ☐ Recommended ☐ Not Recommended _____
Building SIC Rep. ☐ Recommended ☐ Not Recommended _____
Building Curricular Leader ☐ Recommended ☐ Not Recommended _____
District Level: (all signatures required)
IS Curricular Coordinator ☐ Recommended ☐ Not Recommended _____
Curricular Leader HSIC Rep ☐ Recommended ☐ Not Recommended _____
Director of Curriculum . ☐ Recommended ☐ Not Recommended _____
Signatures as needed:
Director of Career & Tech. Ed. ☐ Recommended ☐ Not Recommended _____
Director of Instructional Tech. ☐ Recommended ☐ Not Recommended _____

RETURN COMPLETED FORM TO:
Director of Curriculum & Instruction, A300 by submission deadline
Course Submission Deadlines Meeting Dates
Training Session Only October 11, 2006
November 15, 2006* → December 4, 2005
*Ensures course addition or changes will be included in course catalog for following year.