REQUEST FOR NEW COURSE

1.	General Information.			
a.	Submitted by the College of: Undergraduate Education Today's Date: 14 OCT, 2011			
b.	b. Department/Division: Honors Program	Department/Division: Honors Program		
c.	c. Contact person name: Frank R. Ettensohn	Email: fette	ns@uky.edu Phor	ne: 257-1401
d.	d. Requested Effective Date: Semester follow	wing approval OR	Specific Term/Year ¹	:
2.	2. Designation and Description of Proposed Cours	e.		
a.	a. Prefix and Number: HON 152			
b.	b. Full Title: The World as Natural and Physical P	henomena (subtitle re	equired)	
c.	c. Transcript Title (if full title is more than 40 chara	octers): Natural and	Physical World	
d.	d. To be Cross-Listed ² with (Prefix and Number):	N/A		
e.	e. Courses must be described by <u>at least one</u> of the for each meeting pattern type.	e meeting patterns be	low. Include number of	actual contact hours ³
	<u>3</u> Lecture Laboratory ¹	Recitation	Discussion	Indep. Study
	Clinical Colloquium	Practicum	Research	Residency
	Seminar Studio	Other – Please exp	plain:	
f.	f. Identify a grading system:	etc.) Pass	s/Fail	
g.	g. Number of credits: 3			
h.	h. Is this course repeatable for additional credit?		Υ	es 🗌 No 🖂
	If YES: Maximum number of credit hours:			
	If YES: Will this course allow multiple registrat	ions during the same	semester?	ES 🗌 NO 🖂
i.	A hands-on, science course for Honors students in which they ask a question requiring scientific analysis, develop a related experimentation regimen, collect data, do the experimentation, analyze the results, draw conclusions and appropriately disseminate the results. Students will directly experience the scientific process to learn how scientists work.			
j.	Prerequisites, if any: Membership in Honors			
k.	k. Will this course also be offered through Distance	Will this course also be offered through Distance Learning?		
l.	I. Supplementary teaching component, if any:	Community-Based	Experience Servic	e Learning
3.	B. Will this course be taught off campus?		Υ	ES 🗌 NO 🖂
4.	I. Frequency of Course Offering.	Frequency of Course Offering.		
4.	Frequency of Course Offering.			

¹ Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received. $^{\rm 2}$ The chair of the cross-listing department must sign off on the Signature Routing Log.

³ In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

⁴ You must *also* submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

REQUEST FOR NEW COURSE

a.	Course will be offered (check all that apply):	Summer		
b.	Will the course be offered every year?			
	If NO, explain:			
5.	Are facilities and personnel necessary for the proposed new course available?	YES 🖂	NO 🗌	
	If NO, explain:			
6.	What enrollment (per section per semester) may reasonably be expected? 15-20			
7.	Anticipated Student Demand.			
и. а.	Will this course serve students primarily within the degree program?	YES	NO 🔀	
b.	Will it be of interest to a significant number of students outside the degree pgm?	YES T	NO 🖂	
D.			NO 🖂	
		dents only.		
8.	Check the category most applicable to this course:			
	Traditional – Offered in Corresponding Departments at Universities Elsewhere			
	Relatively New – Now Being Widely Established			
	Not Yet Found in Many (or Any) Other Universities			
9.	Course Relationship to Program(s).			
a.	Is this course part of a proposed new program?			
	If YES, name the proposed new program:			
b.	Will this course be a new requirement⁵ for ANY program? YES ☑ NO ☐			
	If YES ⁵ , list affected programs: It can be used to satisfy Honors requirements.			
10.	Information to be Placed on Syllabus.			
a.	Is the course 400G or 500?	YES	NO 🖂	
	If YES, the differentiation for undergraduate and graduate students must be included in the information required in 10.b . You must include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)			
b.	The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10. a above) are attached.			

 $^{^{\}rm 5}$ In order to change a program, a program change form must also be submitted.

REQUEST FOR NEW COURSE

Signature Routing Log

General Information:

Course Prefix and Number: HON 152

Proposal Contact Person Name: Frank R. Ettensohn Phone: 257-1401 Email: f.ettensohn@uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Honors Faculty of Record	Feb. 6, 2012	Frank Ettensohn / 7-1401 / fettens@uky.edu	
		/ /	
		/ /	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision ⁶
Undergraduate Council	Feb. 7, 2012		
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:	

⁶ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

GENERIC SYLLABUS AND GUIDELINES FOR HON 152 COURSE DESIGNERS

HON 152-XXX: THE WORLD AS NATURAL AND PHYSICAL PHENOMENA

SUBTITLE: TBA

ROOM + MEETING TIMES TBA

INSTRUCTOR: XXX Email: XXX@uky.edu Instructor Office: XXX

Instructor Office Phone: 257-XXXX
Office Hours: XXX or by appointment

Honors Program Main Office: 1153 Patterson OT (mailboxes are located in the HP main office)

Honors Program Office Phone: 257-3111

Course Description:

A hands-on, science course for Honors students in which they ask a question requiring scientific analysis, develop a related experimentation regimen, collect data, do the experimentation, analyze the results, draw conclusions and appropriately disseminate the results. Students will directly experience the scientific process to learn how scientists work.

Course Overview:

Science is one way of understanding the natural world, and inasmuch as this world influences us as much as we influence it, it is essential for the educated person to realize the nature of the natural world, how parts of it interact with its human components, and how the process of science contributes toward an understanding of these interactions. To that end, it is largely through the process of experimentation that science advances our understanding of the world. What experiments a scientist does run, moreover, depend upon the questions that are asked. Each Honors science course will be centered on a question, which depends upon the expertise of the instructor, and using that question, students and faculty will develop an experimental regimen and follow that regimen during the course of the semester to resolve the question and develop understanding. Every course will be a hands-on project, involving preliminary research, formulating an experimental regimen, collecting data, analyzing that data, drawing conclusions, and then presenting the conclusions in suitable written and visual formats at a University research showcase. Clearly, students will acquire some content knowledge during the process, but the more important part of the course will be experiencing the scientific process and understanding why scientists think as they do.

Learning Outcomes:

Upon completion, the honors student will be able to:

- Describe the historical development of scientific knowledge
- Describe the dynamic interaction between society and the scientific enterprise

- Analyze the theoretical, practical, creative and cultural dimensions of scientific inquiry and how they shape societal perceptions of self, others, and the natural world
- Identify the potential benefits and risks of science and technology to address problems in the contemporary world
- Conduct a hands-on project using scientific methods to include design and hypothesis, data collection, analysis, a summary of the results, conclusions, alternative approaches, and suggestions for future research studies
- Recognize the efficacy of scientific arguments reported for general consumption and arrive at ethical practices for the preparation, production, and dissemination of information
- Recognize when scientific information is needed and apply research skills to find, evaluate, and efficiently use sources of scientific information

Texts:

Texts and readings to be selected by individual professors depending on the focus of the course.

Course requirements may include:

Class attendance and participation
Reading primary source information (scientific articles)
Reading and writing abstracts
Response papers
Sampling in the field
Laboratory work and compiling lab reports
Exams (optional)

BUT should include:

Formal writing assignments (the instructor determines how this may be carried out: three 5-page papers? One 15-20-page research paper? Etc.): a minimum of 15 pages is sufficient, so long as

- 1. Formal writing assignments run at least 5 pages in length,
- 2. At least 10 of these pages are single-authored, and
- 3. The 15 pages go through a draft, review, and revision process.

4. At least one venue by which students can practice using effective forms of visual/digital media: student presentations, poster presentations, and the like.

Assessment/Grading:

Percentages to be determined by professor/instructor. Recommended grading scale for Honors classes:

100-90 = A; 89-80 = B; 79-70 = C; 69-60 = D; 59-0 = E

Special Notes: Information about disability services, make-up work, plagiarism, communications, and civility may be inserted by professors here.

Tentative Class Schedule:

Again, to be determined by individual instructors, but must include:

Assignments including introduction to methods and analysis in the physical and natural sciences Dates providing peer-review sessions

Dates providing time for field and lab experimentation

Class sessions establishing and encouraging collaboration

Timing of research projects

Research, written and oral components

Other information to include:

Brief descriptions of course requirements and how they will be graded

Instructor course policies on:

Attendance and absences

Civility and conduct in the classroom

Completion and submission of work

Plagiarism

Academic accommodations due to disability—here's a standard description on this: "If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. 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."

The following syllabus is an example of how one instructor might introduce students to the natural sciences through geology.

HON 152-XXX

The World as Natural and Physical Phenomena: Limestones and the Kentucky-Bahama Connection

TIME & PLACE: 57 Bowman Hall; Tuesdays, 2-4:50 P.M. (plus time for travel)

INSTRUCTOR: F.R. Ettensohn

Office: 314A Slone Bldg (257-1401) (Mailbox: 101 Slone Bldg.)

(E-mail: fettens@uky.edu)

INSTR. OFFICE HOURS: Tuesday and Thursday, 10:30-11:45 A.M., or by appointment

REQUIRED READING:

Bahamian Landscapes, 3rd ed., by N.E. Sealey, Ishmael by Daniel Quinn, and Short weekly scientific readings and handouts provided by Dr. Ettensohn

COURSE DESCRIPTION:

A hands-on, science course for Honors students in which they ask a question requiring scientific analysis, develop a related experimentation regimen, collect data, do the experimentation, analyze the results, draw conclusions and appropriately disseminate the results. Students will directly experience the scientific process to learn how scientists work.

COURSE OVERVIEW:

This course is designed to give students hands-on experience using the scientific method in the earth sciences. Specifically, we will use geology's scientific method, the principal of uniformitarianism (The present is the key to the past.), to understand the origin of the limestones in and around central Kentucky. We will look at and collect examples of sedimentary features and fossils in the field from the geologic record in Kentucky and then try to understand them by examining modern analogues in the Bahamas. Limestones typically form in shallow, warm, well-lit, subtropical waters, and so in the past based on uniformitarian principles, central Kentucky must have been in such a paleoclimatic setting. And indeed, paleoclimatic reconstructions of the central Kentucky area 450 million years ago show that it was located about 25° south latitude (where Brazil is located today). To understand how this change has occurred over 450 million years, we will also need to understand the principles of plate tectonics and how tectonics influenced paleogeography and Paleoclimate. In a major part of the course, we will actually go to the Bahamas, because in the Bahamas, we can see limestones in the process of forming. In particular, we will observe modern carbonate environments, where carbonate (CaCO₃) sands and muds are forming at present in the warm, well-lit, shallow, subtropical waters. We will also observe the abundant invertebrate marine life that is present in these waters using snorkels and compare that life to former life in the Lexington Limestone via its abundant fossils. We will examine fossil reefs at the Falls of the Ohio and compare them with

modern reefs in shallow Bahamian waters. What is even more interesting about the Bahamian situation is that we can not only examine limestones in the process of formation, but we can see the exact same features in very young (~10,000 years old) limestones that form the Bahamian beach rocks. Ultimately, we will actually go to the Bahamas to examine modern analogs of the features that we will see in the fossil record around Kentucky. We will also use this process to learn some basic principles regarding time, energy, paleobiology, plate tectonics, evolution, and paleoenvironments in an integrated way not usually possible in traditional geology classes. Moreover, much of our learning will take place outside during weekly field trips as the weather permits.

Also in the Bahamas, we will examine local culture and how the geological setting influences the way people live. We will also visit a Bahamian elementary school and actually work with some of the children. The island we visit, San Salvador, is not a tourist island, but is typical of a third-world country. It will be important to think about the relatively "simple" lives these people live and how our lives compare with them. Is there anything we can learn from them about living and what is really important in life?

Although geology and limestones are all around us, most people seldom really "see" these aspects of our lives. In a larger sense, geology is about "Looking at things differently." In this course, you will have the opportunity to examine life, time, place and permanency through short scientific readings and weekly analytic and reflective abstracts and papers. This course, its trips, and short readings, as well as the book, *Ishmael*, are designed to take you beyond your normal "comfort zone" into another way of looking at what is around you and at another culture (The Bahamas) in order to examine potentially new ways of living, thinking, and perceiving the world around you.

LEARNING OUTCOMES:

- 1.) Understand how the Principle of Uniformitarianism is used as the major method of inquiry in the geological sciences.
- 2.) Be able to explain the major principles of earth science: geologic time, energy, constructive vs. destructive earth processes, plate tectonics, paleoclimate and paleogeography, and biological evolution.
- 3.) Use these principles in an uniformitarian context to make predictions about the formation of limestones in Kentucky relative to a modern Bahamian example.
- 4.) Understand how plate tectonics was discovered and it has revolutionized our understanding of the Earth and humankind's place in it.
- 5.) Understand what biological evolution is, how we can observe it in the rocks around us, and what it means for us and the world around us.
- 6.) Understand how basic geology influences life in our society and compare that with influences in the Bahamas.
- 7.) Conduct and present a written project to understand the uniformitarian connections between a fossil life form collected in Kentucky and a modern life form collected in the Bahamas.
- 8.) Understand how to read, interpret, and evaluate scientific literature by reading weekly scientific articles and writing abstracts about them.

EVALUATION PROCEDURES:

Your grade in the course will be based on individual written papers, individual written abstracts, field-trip follow-up reports, attendance/participation and an individual project. There will be no quizzes, tests, or exams in this course. Every week you will be assigned a short scientific article to read, and in the following week you will be expected to submit a 250-word abstract detailing briefly the content of that paper; your abstracts will form the basis for discussion on that article. You will also write a short "biweekly" paper about every other week based on a class discussion topic or field trip and participate in at least one oral presentation, usually related to some scientific topic from the course or from the book Ishmael. Readings from Ishmael will be assigned on a weekly basis. Grammar and syntax, as well as content, will be evaluated on the papers. I will ask you to help me evaluate each other's oral presentations and participation component. I expect papers to be typed or processed on the computer according to the established guidelines for each assignment. I will not accept late papers without a valid medical excuse. (See policy on excuses below.). In addition to presence and daily participation in class, participation also includes preparing a Powerpoint/poster display for the Undergraduate Showcase in early December and being present at the Showcase to explain your work. Everyone will also do a written independent project (>10 pages) in which they use a fossil or fossils that they have collected during one of our class trips and compare it environmentally and physically with a modern analog found in the Bahamas. In this way, you will be able to experience how uniformitarianism works for yourself.

The percentage for each of the above components in your grade is as follows:

Biweekly Papers (6)	50%
Weekly Abstracts (12)	
Follow-up field reports (10)/ notebook	10%
Attendance/Participation	10%
Individual Project	

The standard grading scale for undergraduates will be used in assigning mid-term and final grades: 90–100=A; 80–89=B; 70–79=C; 60–69=D; <60=E.

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/Registrar/AcademicCalendar.htm).

FIELD TRIPS:

During nearly every class period when weather allows, we will spend part of class time in the field doing some hands-on work with the limestones of the region. After every weekly trip, you will write up a follow-up field-trip report to hand in at the next class. On one of these trips you will collect one or more fossils that will the basis for your written project. Because of the travel time required to get into and out of the field and traffic, you can generally expect that class will require an additional 60-90 minutes beyond the normal 5:00 completion time. Please avoid planning activities on Tuesdays until after 6:00 or 6:30 P.M. If I know about days when you must be back early, I can sometimes plan different field trips on those days; please let me know well before. In late October or early November, the class will go on a full-Saturday, **required** field trip to Pound Gap in eastern Kentucky and Virginia. We will decide in class when to do this trip.

SPECIAL REQUIREMENTS:

Of course, the highlight of the course is a **required**, **weeklong trip to San Salvador**, **Bahamas**, **before and during and before the Thanksgiving Break (Nov. 18–27)** in order to examine modern analogs to the 450-million-year-old limestones in central Kentucky. Students must provide their own transportation to and from Ft. Lauderdale, FL, in addition to the cost of the weeklong stay that will cost approximately \$900-1000. **Passports are required for entry into the Bahamas**; if you have no passport, please work on getting your passport now. More information on the field trip and travel abroad will be presented in the first few courses.

NOTEBOOK:

As will have no formal exams in this class, the notebook is meant to be your record of what happened in the class — something that you can go back to in order to find information from the course. You will need to keep in it, in an orderly fashion (perhaps by class or lecture), notes from the class, handouts, follow-up field-trip reports, abstracts, and returned biweekly writing assignments. It will be collected and evaluated twice, once at midterm and once at the end of semester.

TENTATIVE, GENERAL COURSE SCHEDULE:

WEEK	TOPICS	READINGS
Aug. 30	Introduction and course logistics; What is science? How do we do science in geology (uniformitarianism)? Making observations.	Handouts
Sept. 6	Geologic time (I-64 outcrop) Making observations and recording them.	Ishmael 1, Handouts
Sept 13	Energy and earth processes (Kentucky River at Clays Ferry) Making observations and recording them.	Ishmael 2
Sept. 20	Constructive processes: Continental rift and plate tectonics (Camp Nelson faults) Making observations and recording them.	Ishmael 3 Sealey, Chapt. 1
Sept 27	Destructive processes: Weathering and erosion (Clays Ferry exposure) Making observations and recording them.	Ishmael 4 Sealey, Chapt. 3
Oct. 4	Destructive processes: Caves and solution features (Camp Nelson)	Ishmael 5 Sealey, Chapt. 5

	Making observations and recording them.	
Oct. 11	Fossils and fossil preservation (Fossil collecting at Winchester) Making observations and recording them.	Ishmael 6; handouts Sealey, Chapt. 2
Oct 18	Evolution (Caminicule game: evolve your own organisms	Ishmael 7 Sealey, Chapt. 2
Oct 25	Evolution and life in the seas (Fossil Collecting at Clays Ferry)	Ishmael 8, handouts Sealey, Chapt. 2
Nov. 1	Reefs (Falls of the Ohio, Louisville) Making observations and recording them.	Ishmael 9, Handout
Nov. 8	Climate and carbonates; Limestones and carbonate paleoenvironments (Petrology lab to examine limestones under microscope) Making observations and recording them.	Ishmael 10, handouts Sealey, Chapts. 4 and 9
Nov. 15	Bahamian history and life (Review Bahamas transportation and trip particulars)	Special Readings, Ishmael 11
Nov. 18 – Nov. 27	Trip to San Salvador, Bahamas	<i>Ishmael 12 & 13</i> Sealey, Chapts. 4, 5, 6, & 9
Nov. 29	Movie and dinner at Dr. Ettensohn's house	Work on Showcase Presentation
Dec. 6	Course follow-up and evaluations	Showcase Presentation on Dec. 7 (?), 11:30 – 1:30

Excused Absences:

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for

the semester are missed (excused or unexcused) per university policy.

Verification of Absences;

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

Academic Integrity:

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of *Student Rights and Responsibilities* (available online http://www.uky.edu/StudentAffairs/Code/part2.html) states that 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. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

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 acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. 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. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the

public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability:

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. 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.

Classroom Behavior Policies:

This class will involve discussion about topics like evolution, which are controversial. We expect students and faculty to treat each other and their opinions with respect. Although it is expected that people will disagree with each other on some topics and that people should be free to discuss their disagreement, all such discussions should be done with utmost civility and respect.

Please turn off cellphones when coming into class. Laptops should not be opened up and used in class unless it is for note-taking.