UNIVERSITY OF BALTIMORE

DOCUMENT N: COURSE AND PROGRAM DEVELOPMENT COVER SHEET

See Course and Program Development Policy and Procedures for Instructions

SCHOOL: LAW ❑	MSB ❑	YGCLA X	**Contact Name:** Peggy Potthast	**Phone:** x5342
DEPARTMENT / DIVISION: Office of the Dean, College of Liberal Arts				
SHORT DESCRIPTION OF PROPOSAL (state name of action item 1-20 and course name, code & number / program affected):				
#8 – new course – CHEM 101 Chemistry and the Modern World				
PROPOSED SEMESTER OF IMPLEMENTATION: Fall x	Spring ❑	Year: 2007		

Box 1: TYPE OF ACTION	ADD(NEW) X	DEACTIVATE ❑	MODIFY ❑	OTHER ❑
Box 2: LEVEL OF ACTION	Non-Credit ❑	Undergraduate X	Graduate ❑	OTHER ❑

	Box 3: ACTION ITEM (check appropriate boxes)	DOCUMENTS REQUIRED (see box 4 below)	IMPACT REVIEWS (see box 5 on back)	APPROVAL SEQUENCE (see box 6 on back)
	1. Experimental Course [1]	NOP	a, c, e	AC
	2. Course Title	NO		ABCD
	3. Course Credits	NO		ABCD
	4. Course Number	NO		ABCD
	5. Course Level	NO		ABCD
	6. Pre & Co-Requisite	NO		ABCD
	7. Course Description	NOP		ABCD
x	8. New Course	NOP		ABCDEF
	9. Deactivate a Course	NO		ABCDEF
	10. Program Requirements	NO	b, c, d, e	ABCDEF
	11a. UG Specialization (24 credits or less)	NO	a, b, c, d, e	ABCDEF
	11b. Masters Specialization (12 credits or less)	NO	a, b, c, d, e	ABCDEF
	11c. Doctoral Specialization (18 credits or less)	NO	a, b, e	ABCDEF
	12. Closed Site Program	NOT	e	ABCDHIK
	13. Program Suspension [9]	NO,5	a, e	ABCDEGIK
	14a. Certificate Program (ug/g) exclusively within existing degree program	NO	a, c, e	ABCDEFHIK
	14b. Certificate Program (ug/g) where degree programs do not exist or where courses are selected across degree programs (12 or more credits)	NOQR, 6	a, c, e	ABCDEFHJL
	15. Off-Campus Delivery of Existing Program	NO, 4	a, b, c, e	ABCDHIL
	16a. UG Concentration (exceeds 24 credit hours)	NO, 5	a, c, d, e	ABCDEFGHJL
	16b. Masters Concentration (exceeds 12 credit hours)	NO, 5	a, c, d, e	ABCDEFGHJL
	16c. Doctoral Concentration (exceeds 18 credit hours)	NO, 5	a, c, d, e	ABCDEFGHJL
	17. Program Title Change	NO, 5	a, c, d, e	ABCDEFGHJL
	18. Program Termination	NO, 10	d, e	ABCDEFGHIK
	19. New Degree Program	NOQR, 3,8	a, c, d, e	ABCDEFGHJL
	20. Other	Varies	Varies	Varies

Box 4: DOCUMENTATION (check boxes of documents included)					
X	N. This Cover Sheet		Q. Full 5-page MHEC Proposal		T. Other
X	O. Summary Proposal		R. Financial Tables (MHEC)		
X	P. Course Definition Document		S. Contract		

1. Approval of experimental course automatically lapses after two offerings unless permanently approved as a new course.
2. Codes: a) Library Services (Langsdale or Law) b) Office of Technology Services c) University Relations d) Admissions
3. Letter of Intent is required by USM at least 30 days before a full proposal can be submitted. Letter of Intent requires only the approval of the dean and the provost and is forwarded to USM by the Office of the Provost.
4. One-page letter to include: Program title & degree/certificate to be awarded; resources requirements; need and demand; similar programs; method of instruction; and oversight and student services (MHEC requirement)
5. One-page letter with description and rational (MHEC requirement)
6. One or two-page document that describes: centrality to mission; market demand; curriculum design; adequacy of faculty resources; and assurance program will be supported with existing resources. (MHEC requirement)
7. Learning objectives, assessment strategies; fit with UB strategic plan
8. Joint Degree Program or Primary Degree Programs require submission of MOU w/ program proposal. (MHEC requirement)
9. Temporary suspension of program to examine future direction; time not to exceed two years. No new students admitted during suspension, but currently enrolled students must be given opportunity to satisfy degree requirements.

DOCUMENT N: COURSE AND PROGRAM DEVELOPMENT COVER SHEET (Page 2 of 2)

SCHOOL: LAW ☐ MSB ☐ YGCLA X
SHORT DESCRIPTION OF PROPOSAL (state name of action item 1-20 and course name, code & number / program affected):
#8 – new course – CHEM 101 Chemistry and the Modern World

10. Provide:
    a. evidence that the action is consistent with UB mission and can be implemented within the existing program resources of the institution.
    b. proposed date after which no new students will be admitted into the program;
    c. accommodation of currently enrolled students in the realization of their degree objectives;
    d. treatment of all tenured and non-tenured faculty and other staff in the affected program;
    e. reallocation of funds from the budget of the affected program; and
    f. existence at other state public institutions of programs to which to redirect students who might have enrolled in the program proposed for abolition.
11. University Council *review* (for a recommendation to the President or back to the Provost) shall be limited to curricular or academic policy issues that may potentially affect the University's mission and strategic planning, or have a significant impact on the generation or allocation of its financial resources.

Box 5: IMPACT REVIEW	SIGNATURES (see procedures for authorized signers)	DATE
a. Library ☐ No impact ☐ Impact statement attached	Director or designee:	
b. OTS ☐ No impact ☐ Impact statement attached	CIO or designee:	
c. University Relations ☐ No impact ☐ Impact statement attached	Director or designee:	
d. Admissions ☐ No impact ☐ Impact statement attached	Director or designee:	
e. Records ☐ No impact ☐ Impact statement attached	Registrar or designee:	

Box 6: APPROVAL SEQUENCE	APPROVAL SIGNATURES	DATE
A. Department / Division	Chair: Margaret J. Potthast	12-1-06
B. Final faculty review body within each School	Chair: Thomas E. Czerny	12-19-06
C. College Dean	Dean: Gary W. Penn	1/3/07
D. Provost and Senior Vice President for Academic Affairs	Provost: Judith M. Bardwell	1/18/07
E. Curriculum Review Committee (UFS subcommittee)	Chair: Myrtle Gillespie	1/23/07
F. University Faculty Senate (UFS option)	Chair:	
G. University Council (see # 11 above)	Chair:	
H. President	President:	
I. Board of Regents – notification only		
J. Board of Regents – approval		
K. MHEC – notification only		
L. MHEC – approval		
M. Middle States Association notification	Required only if the mission of the University is changed by the action	

UNIVERSITY OF BALTIMORE

DOCUMENT O: SUMMARY PROPOSAL

See Course and Program Development Policy and Procedures for Instructions

SCHOOL: LAW ❑ MSB ❑ YGCLA X	**Contact Name**: Peggy Potthast	**Phone**: x5342
DEPARTMENT / DIVISION: Office of the Dean, College of Liberal Arts		
SHORT DESCRIPTION OF PROPOSAL (state action item 1-23 and course name & number or program affected):		
#8 – new course – CHEM 101 Chemistry and the Modern World		
PROPOSED SEMESTER OF IMPLEMENTATION: Fall x Spring ❑ Year: 2007		

O-1: Briefly describe what is being requested:

We are requesting to add a new course, CHEM 101 Chemistry and the Modern World, to the curriculum to help meet general education needs in non-laboratory science.

For new courses or changes in existing courses (needed by Registrar)		
OLD Title:	Course # / HEGIS Code:	Credits:
NEW Title: Chemistry and the Modern World	Course # / HEGIS Code: CHEM 101	Credits: 3

O-2: Set forth the rationale for the proposal:

We want to build science courses that meet general education needs of students as required by MHEC.

Document P: Course Definition
Chemistry and the Modern World

1. Prepared October 21, 2006.

2. Prepared by Ronald Castanzo and Peggy Potthast

3. Department: College of Liberal Arts

4. Course Number: CHEM 101

5. Course Title: Chemistry and the Modern World

6. Credit hours: 3.0

7. Catalog Description:

THIS COURSE SATISFIES THE NON-LABORATORY SCIENCE GENERAL EDUCATION REQUIREMENT.

Focuses on the relationship between people and chemistry. Introduction to the fundamentals of chemistry, including the nature of matter and energy, atomic structure, and chemical bonds. Addresses such subjects as the characteristics and makeup of the compounds that power automobiles and heat homes, the drugs that alleviate pain or ease depression, and the foods eaten to provide the components of the life-sustaining processes of the human body.

8. Prerequisites: None

9. Faculty qualified to teach course: Master's Degree in chemistry or some other field of natural science (e.g. biology, geology, physics, etc.); new hire or adjunct

10. Course Type/Component: lecture

11. Suggested approximate size: 30 students

12. Content Outline:

Week	*Topics*
1	What is science?; scientific method; mathematics and chemistry
2	Atomic structure; elements
3	Molecules and compounds; chemical bonds
4	Organic chemistry
5	Electromagnetic spectrum
6	Radioactivity; nuclear power and weapons
7	Thermodynamics; energy in today's society
8	Renewable energy sources; properties of gases
9	Atmosphere; solids and liquids; nature of water
10	Acids and bases; oxidation and reduction
11	Respiration and photosynthesis

12	Chemistry of household products; biochemistry
13	Chemistry and the treatment of disease
14	Diet and nutrition
15	Nanotechnology

13. Learning Goals:

I. to understand the basic terminology, fundamental concepts, and significant persons in the field of chemistry;
II. to be able to extract and summarize information from a peer review journal article dealing with chemistry;
III. to understand how science is conducted (including the construction and testing of hypotheses) and what distinguishes scientific fields from other types of disciplines;
IV. to attain a fundamental understanding of how scientific data are gathered, quantified, and evaluated;
V. to become familiar with the tools scientists use to gather and assess scientific data, including basic statistical techniques and software.
VI. to understand the connection between fundamental principles and concepts of chemistry and the natural phenomena they encounter in their everyday lives.

14. Assessment Strategies:

I. frequent quizzes and/or short assignments (e.g. observational studies, mathematical exercises, completion of textbook questions, etc.);
II. at least two exams, including a final exam;
III. writing assignments (stressing scientific format and writing) that require students to utilize, on a limited basis, the peer review literature (articles chosen by the instructor are suggested);
IV. field trip reports, oral presentations, and other kinds of assessment tools are possible, but not essential for the instruction of the course.

15. Suggested text:

Tro, Nivaldo J. 2007 *Chemistry in Focus*. Brooks/Cole.

Other appropriate texts:

American Chemical Society 2006 *Chemistry in Context: Applying Chemistry to Society*. McGraw-Hill
Hill, J. W. and Kolb, D. K. 2007 *Chemistry for Changing Times*. Prentice Hall.
Kelter, P. B., Carr, J. D., and Scott, A. 2003 *Chemistry: A World of Choices*. McGraw-Hill
Suchocki, J. A. 2007 *Conceptual Chemistry*. Benjamin Cummings.