SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

New Course Request

SDSM&T	**Materials Engineering and Science**
Institution	**Division/Department**
	2/9/2017
Institutional Approval Signature	**Date**
USD	**Arts & Sciences/Chemistry**
Institution	**Division/Department**
Elizabeth M. Freeburg	5/9/2017
Institutional Approval Signature	**Date**

Section 1. Course Title and Description

Prefix & No.	Course Title	Credits
MES 455/555 (SDSM&T) CHEM 455/555 (USD) CHEM 455/555 (SDSU)	Surface Engineering and Functionalization **[Short title: Surface Eng Functionalization]**	1

Course Description

This course will provide an introduction to the fundamentals and applications of surface engineering and functionalization technologies. Course topics will include thin film deposition technologies, thick coating, and organic coating methods. The course will also introduce concepts on surface functionalization, coating characterization, and electrochemical surface modifications. This course is developed for both graduate and undergraduate students. Students enrolled at the graduate level will be held to a higher standard than those enrolled at the undergraduate level.

Commented [LTR1]: The committee thought these lines did not belong in a description but possibly notes in an online catalog. Comments sent to consider removing sent to SDSM&T?

Pre-requisites or Co-requisites N/A
Registration Restrictions N/A

2.1. Was the course first offered as an experimental course?

☐ Yes *(if yes, provide the course information below)* ☒ No

2.2. Will this be a unique or common course?

☒ **Common Course** *Indicate universities that are proposing this common course:*

☐ BHSU ☐ DSU ☐ NSU ☒ SDSMT ☒ SDSU ☒ USD

Section 3. Other Course Information

3.1. Are there instructional staffing impacts?

☒ **No**. Schedule Management, explain below:
This course will become part of the faculty member's standard rotation of courses

3.2. Existing program(s) in which course will be offered:
Materials Engineering and Science (SDSMT)
Arts & Sciences/Chemistry (USD)

Chemistry and Biochemistry (SDSU)

3.3. Proposed instructional method by university: R-Lecture

3.4. Proposed delivery method by university: (001) Face-to-Face and (018) Internet Synchronous

3.5. Term change will be effective: Fall 2017

3.6. Can students repeat the course for additional credit?
☐ Yes, total credit limit: _____ ☒ No

3.7. Will grade for this course be limited to S/U (pass/fail)?
☐ Yes ☒ No

3.8. Will section enrollment be capped?
☐ Yes, max per section: _____ ☒ No

3.9. Will this course equate with any other unique or common courses in the common course system database in Colleague and the Course Inventory Report?
☐ Yes ☒ No

3.10. Is this prefix approved for your university?
☒ Yes ☐ No

Section 4. Department and Course Codes (Completed by University Academic Affairs)

4.1. University Department Code: MMET, SCHEM, UCHEM,

4.2. Proposed CIP Code: 14.1801

Is this a new CIP code for the university? ☐ Yes ☒ No

Hello All,

Thank you very much for all of your help with this new course request. I have updated the document with SDSU information as well (please see attached). The course content is the same, but I have made few other minor changes and you can use the attached document for internal approval.

I think I have all the information needed for submission and I will submit for approval today. Thanks again for all your help and you have a great day.

Bharat

Bharat K. Jasthi, PhD
Assistant Professor
Materials and Metallurgical Engineering
South Dakota School of Mines and Technology
Rapid City, SD-57701
Phone: (605)-394-2342

From: Jasthi, Bharat
Sent: Monday, March 20, 2017 6:03 PM
To: Sereda, Grigoriy A <Grigoriy.Sereda@usd.edu>
Cc: Dudley, John E <John.Dudley@usd.edu>
Subject: RE: A new SERC one credit course on surface engineering

Hello Grigoriy,

Thank you for your email and I think this paper work is sufficient and I will be able to cross-list it from our side. So, there is no need for you to submit any additional paperwork at USD.
If I need any additional information, I will let you know.

Thanks again,
Bharat

Bharat K. Jasthi, PhD
Assistant Professor
Materials and Metallurgical Engineering
South Dakota School of Mines and Technology
Rapid City, SD-57701
Phone: (605)-394-2342

From: Sereda, Grigoriy A
Sent: Monday, February 13, 2017 11:52 AM
To: Sykes, Andrew <Andrew.Sykes@usd.edu>
Subject: A new SERC one credit course on surface engineering

Hi, Andy,

As a part of the SERC Center, we have developed a 1 credit Access Grid course on surface engineering that can be dual listed for graduate and undergraduate students. The description of the course to be taught every two years, starting Fall 2017, is attached. Currently it will be taught by SDSM&T faculty, but the revenue would be split between universities whose students are attending. I think this course would be a nice addition to our Materials Chemistry program. Can we discuss inclusion the course to our curriculum, and if it needs to be modified to get routed to our Curriculum Committee?
Thanks, Grigoriy

Grigoriy Sereda
Professor of Chemistry
University of South Dakota
Department of Chemistry
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