REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: Environment and Sustainability  PROPOSED EFFECTIVE SEMESTER: Fall 2019  COLLEGE: A&S

PROPOSED IMPROVEMENTS

Academic Program

☐ New degree*
☐ New major*
☐ New curriculum*
☐ New concentration*
☐ New certificate
☐ New minor
☐ Revised major
☐ Revised minor
☐ Admission requirements
☐ Graduation requirements
☐ Deletion ☐ Transfer
☐ Other (explain**)

Substantive Course Changes

☐ New course
☐ Pre or Co-requisites
☐ Deletion (required by others)
☐ Course #, different level
☐ Credit hours
☐ Enrollment restriction
☐ Course-level restriction
☐ Prefix ☐ Title and description
☐ General education (select one)
☐ Not Applicable
☐ Other (explain**)

Misc. Course Changes

☐ Title
☐ Description (attach current & proposed)
☐ Deletion (not required by others)
☐ Course #, same level
☐ Variable credit
☐ Credit/no credit
☐ Cross-listing
☐ COGE reapproval
☐ Other (explain**)

** Other:

Title of degree, curriculum, major, minor, concentration, or certificate: Sustainable Brewing Operations

Existing course prefix and #:  Proposed course prefix and #:  Credit hours:

Existing course title:

Proposed course title:

Existing course prerequisite & co-requisite(s):

Proposed course prerequisite(s)

If there are multiple prerequisites, connect with "and" or "or". To remove prerequisites, enter "none."

Proposed course co-requisite(s)

If there are multiple corequisites, they are always joined by "and."

Proposed course prerequisite(s) that can also be taken concurrently:

Is there a minimum grade for the prerequisites or corequisites?

The default grades are D for undergraduates and C for graduates.

Major/minor or classification restrictions:

List the Banner 4 character codes and whether they should be included or excluded.

For 5000 level prerequisites & corequisites: Do these apply to: (circle one) undergraduates graduates both

Specifications for University Schedule of Classes:

a. Course title (maximum of 30 spaces):

b. Multi-topic course: ☐ No ☐ Yes

c. Repeatable for credit: ☐ No ☐ Yes

d. Mandatory credit/no credit: ☐ No ☐ Yes

e. Type of class and contact hours per week (check type and indicate hours as appropriate)

1. ☐ Lecture
2. ☐ Lab or discussion
3. ☐ Lecture/lab/discussion
4. ☐ Seminar or ☐ studio
5. ☐ Independent study
6. ☐ Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director  Date

Chair, College Curriculum Committee  Date

Dean  Date:  Graduate Dean:  Date

Curriculum Manager: Return to dean ☐ Date  Forward to:  Date

Chair, COGE/ PEB / FS President  Date

FOR PROPOSALS REQUIRING GSC/USC REVIEW:

* ☐ Approve ☐ Disapprove  Chair, GSC/USC  Date

* ☐ Approve ☐ Disapprove  Provost  Date

Revised May 2007. All previous forms are obsolete and should not be used.
1. Explain briefly and clearly the proposed improvement.

Building on the strength of the existing Bachelors of Science program in Sustainable Brewing science, we are proposing to create a separate major for students interested in brewing that is focused on the operations end of the industry and less on the science. This curriculum will be patterned similar to the existing program as a partnership with KVCC. All students will transfer the same Sustainable Brewing certificate (or equivalent from other sources as determined by the advisory committee). Students will thus have a choice of two related but distinct curricula under the umbrella of Sustainable Brewing.

We think of this program as “applied liberal arts” as coursework will focus on a specific market sector but will provide a broad academic experience to teach students to critically evaluate the forces and influences on the industry from a multi-disciplinary perspective.

2. Rationale. Give your reason(s) for the proposed improvement. (If your proposal includes prerequisites, justify those, too.)

According to the Brewers Association, in 2017 the craft brewing industry contributed over $2 billion to the Michigan economy with over 250 breweries, up from just 105 in 2011. WMU is part of a growing effort across the country to develop educational criteria for this growing industry to determine priorities and uphold academic rigor. From discussions over the last 3 years we have learned that many students are interested in being part of this industry, but not all are interested in the science of brewing. Instead many want to be involved in the service/business side of the industry. The proposed curriculum combines formal coursework in business, food service, sustainability

This curriculum was put together in consultation with KVCC, the Sustainable Brewing external advisory board, as well as with colleagues in HCOB, FCS, and CAS.

3. Effect on other colleges, departments or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

Letters of support for inclusion of specific courses by the affected programs (in particular HCOB and FCS) are attached to this proposal.

4. Effect on your department’s programs. Show how the proposed change fits with other departmental offerings.

This proposal naturally fits with existing offerings in ENVS, since brewing is an inherently water-intensive industry, growth of the industry needs to be informed about sustainable practice, a theme that has logical tie-ins with the ENVS Freshwater Science and Sustainability program. Recognition of the need for a sustainability ethic in the industry is reflected in the relatively new “Sustainability Benchmarking Tools” established by the Brewers Association.

5. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students’ time. If a required course will be offered during summer only, provide a rationale.

Since this is a new major, there are no existing enrolled students.

6. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

The Sustainable Brewing science major has been running for 3 years. Many conversations over those years have shown a keen interest on the part of students. After this new curriculum has been established, we anticipate having an enrollment of around 30-50 majors.

7. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? How often will course(s) be offered? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)
Advising will be done by the Director of Sustainable Brewing. All courses proposed in this new major currently exist and anticipated additional enrollment in each course will be modest.

8. General education criteria. For a general education course, indicate how this course will meet the criteria for the area or proficiency. (See the General Education Policy for descriptions of each area and proficiency and the criteria. Attach additional pages as necessary. Attach a syllabus if (a) proposing a new course, (b) requesting certification for baccalaureate-level writing, or (c) requesting reapproval of an existing course.)

This is not a Gen Ed class.

9. List the learning outcomes for the proposed course or the revised or proposed major, minor, or concentration. These are the outcomes that the department will use for future assessments of the course or program.

- Understand the historical context of brewing in human civilization.
- Gain first-hand experience going through the process of brewing, “grain to glass”.
- Examine the place that food production and distribution occupy in human culture and the environmental impact of associated energy demand, water use, waste management, and local sourcing.
- Learn fundamental business skills to manage and grow the beverage and food industry and respond to changing markets.
- Develop critical thinking skills to evaluate how and why the brewing industry can become more sustainable.

10. Describe how this curriculum change is a response to assessment outcomes that are part of a departmental or college assessment plan or informal assessment activities.

The impetus for this proposal is anecdotal evidence of interest on the part of students for a different focus than hard science.

11. (Undergraduate proposals only) Describe, in detail, how this curriculum change affects transfer articulation for Michigan community colleges. For course changes, include detail on necessary changes to transfer articulation from Michigan community college courses. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

All students in this major will transfer in hands-on brewing courses, like the Sustainable Brewing certificate offered by KVCC or equivalent courses from other programs. Transfer articulation for this certificate is already in place. A transfer associates degree in Sustainable Brewing that meets the MTA also already exists and would be appropriate for this major as well.
Sustainable Brewing Operations
Proposed catalog copy

Program Description
The Sustainable Brewing program is an interdisciplinary curriculum that offers students the opportunity to enter the brewing industry in a variety of roles. West Michigan has one of the highest per capita densities of craft breweries in the country and Kalamazoo is a destination for educational opportunities in this growing economic engine. In the last decade, the brewing industry has become more competitive, diversified, and multi-faceted. To create and maintain a diverse, broadly-trained workforce that can critically evaluate information in order to make informed decisions, the overarching goal of this program is to educate students to be problem solvers in the operation of brewing related businesses. This major complements a slate of hands-on brewing courses by providing formal instruction in business, food service operation, and sustainability.

Program Objectives
- Understand the historical context of brewing in human civilization.
- Gain first-hand experience going through the process of brewing, “grain to glass”.
- Examine the place that food production and distribution occupy in human culture and the environmental impact of associated energy demand, water use, waste management, and local sourcing.
- Learn fundamental business skills to manage and grow the beverage and food industry and respond to changing markets.
- Develop critical thinking skills to evaluate how and why the brewing industry can become more sustainable.

Proposed coursework – 42 Credits (plus 28 credits transfer from brewing certificate)

Business/economics block

required
- ACTY 2100 Principles of Accounting I (3 CH)
- MATH 1160 Finite Mathematics with Applications (or higher) (3 CH)
- MGMT 2500 Organizational Behavior (3 CH)
- MKTG 2500 Marketing Principles (3 CH)
- MKTG 2900 Introduction to Food and CPG Industries (3 CH)

electives (choose 2)
- ACTY 2110 Principles of accounting II (3 CH)
- ECON 2010 Microeconomics (3 CH)
- ECON 2020 Macroeconomics (3 CH)
- ECON 4000 Managerial Economics
- MKTG 3930 Food and CPG Sales
- FCS 2720 Food Purchasing and Resource Management
- FCS 4700 Food & Beverage Systems
- ACTY 3990 Sustainability Accounting
- MKTG 3330 Sustainability Marketing
- MGMT 3120 Sustainability Operations

Sustainability block

required
- ENVS 2150 Environmental Systems and Cycles (3 CH)
- ENVS 3000 Introduction to Sustainability (3 CH)
- FCS 3700 Introduction to Food Systems and Sustainability (3 CH)
- FCS 4720 Farm to Table and Sustainability (3 CH)
- ENVS 3499 Sustainable Brewing Capstone (3 CH)

electives (choose 2)
- COM 1040 Public Speaking (3 CH)
- ENVS 2250 Environmental Ecology (3 CH)
- ENVS 3400 Environmental Policy (3 CH)
- ENVS 3600 Environment and Culture (3 CH)
- ENVS 4010 Selected Environmental Topics (3 CH)
- ENVS 5400 Freshwater policy (3 CH)
- GEOG 3200 Culinary Tourism (3 CH)
- ANTH 3560 Food and Culture (3 CH)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 4000</td>
<td>Holy Waters: Spirits and Spirituality (3 CH)</td>
</tr>
<tr>
<td>HOL 3500</td>
<td>Holistic Approaches to Food (3 CH)</td>
</tr>
</tbody>
</table>

**Required brewing block**

- ENVS 3100  Sustainable Brewing

Transfer Kalamazoo Valley Community College (KVCC) Certificate in Craft Brewing (28 CH)  
(or equivalent course series approved by IES)

**Required baccalaureate writing block (choose 1)**

- ENVS 3200  Major Environmental Writings (3 CH)
- BCM 3700   Integrated Communication in Business (3 CH)
- ENGL 3050  Introduction to Professional Writing (3 CH)
Dear Steve,

Yes, please list both if they both work for your program. The Department of English fully supports the proposed changes to the Sustainable Brewing major and to the inclusion of both ENGL3050 and ENGL4090 as classes that meet the major’s baccalaureate writing requirement.

Cheers,

Nic

Nicolas Witschi
Professor and Chair
Department of English
Western Michigan University
Kalamazoo MI 49008-5331
269-387-2571

On Aug 11, 2018, at 1:31 PM, Steven B Bertman <steven.bertman@wmich.edu> wrote:

Dear Nic,

I was not aware that ENGL 4090 had been approved. Would you be OK if I listed both courses as options?

Cheers,

Steve

On Aug 10, 2018, at 3:18 PM, Nicolas Witschi <nicolas.witschi@wmich.edu> wrote:

Dear Steve,

Thanks for your note, the Department of English would be delighted to contribute a bacc-level writing class to the Sustainable Brewing major. I want to propose, however, that ENGL3050 might not be the best course for you. Are you aware that starting F18 we have a new class, fully approved as a bacc-level writing class, ENGL4090 Writing in the Sciences. The catalog copy reads as follows:
A course designed for science majors and others interested in science communication. The course is focused on how arguments are constructed and how knowledge is formed in the sciences. Students will learn to analyze historical and current examples of scientific argumentation to inform their own writing and research. A significant component of the course will be dedicated to accommodating scientific information for non-expert audiences, and learning the stylistic and argumentative changes that occur with accommodation. The major projects in this class will revolve around students’ research interests, including possible projects from coursework in the sciences.

Prerequisites & Corequisites: Prerequisite: Junior standing.

Credits: 3 hours

Notes: This course satisfies General Education Proficiency 2: Baccalaureate-Level Writing.

I think this would be a much better fit for your program. What do you think?

Nic

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Nicolas Witschi
Professor and Chair
Department of English
Western Michigan University
Kalamazoo MI 49008-5331
269-387-2571
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

On Aug 10, 2018, at 2:56 PM, Steven B Bertman <steven.bertman@wmich.edu> wrote:

Dear Nick,

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this
Dear Steve,

This is to confirm that I approved of including Anthropology 3560-Food and Culture as an elective course for your Sustainable Brewing - Operations track program.

Best,

Irma

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Irma López
Interim-Director, Institute for Intercultural and Anthropological Studies
Professor of Spanish
2064 Moore Hall
1901 W. Michigan Ave
Kalamazoo, MI 49008
Tel: 269-387-2558
Email: irma.lopez@wmich.edu
You'll see that the new curriculum 'track' includes a ENGL course in the list of possible bacc writing courses. If you're OK with the proposed ENGL offering, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman

<Brewing operations track proposal 2018.v2.doc>
Dear Professor Bertman,

On behalf of the School of Communication I approve the inclusion of COM 1040 Public Speaking in the set of electives for the Operations track of the Sustainable Brewing major.

Leigh Ford
Leigh Arden Ford, Ph.D.
Director and Professor
School of Communication
Western Michigan University
269.387.3133
Hello Steve,
Nice to hear from you! I am good with the proposed FCS required courses. Thanks for the news!
Frank

Sent from my iPhone

On Aug 10, 2018, at 2:36 PM, Steven B Bertman <steven.bertman@wmich.edu> wrote:

Dear Frank,

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate 'track' that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum 'track' includes a number of FCS courses as requirements. If you're OK with the proposed FCS offerings, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman

<Brewing operations track proposal 2018.v2.doc>
Hi Steve,

I have read your proposal with great interest. Economics is very supportive of your newly proposed operations track regarding the economics elective courses that are offered in it. I will offer a few more details in this email, if you wish something more formally written on Dept letterhead, I can provide that early next week.

In your electives section, Econ 2010, 2020, and 4000 are listed. We offer both principles classes (Econ 2010 and 2020) regularly, with multiple sections in both fall and spring semesters and with some availability in the summer sessions. We have courses in the traditional mode as well as hybrid and online offerings. I personally have committed to offering online managerial econ (Econ 4000) regularly in spring semesters, starting in spring 2020. In fact, I meet with some EUP support next Monday to start my online preparation. I am willing to tailor the 4000 course towards the operations track brewing students as I am able to do so.

Thanks for your interest in our courses,

Don Meyer
Economics Chair and Professor

From: Donald J Meyer <donald.meyer@wmich.edu>
Subject: Re: Sustainable Brewing operations track
Date: August 10, 2018 at 4:33:15 PM EDT
To: Steven B Bertman <steven.bertman@wmich.edu>
Dear Don,

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. As we discussed earlier this year, to address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum 'track' includes a number of ECON courses in the list of electives. If you're OK with the proposed ECON offerings, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman
Dear Steven,

I was intrigued with your additions to the Brewing degree - especially in the Operations track. I can see that this would be a great option for students who would like to participate on the management end of the field rather than just the manufacturing side. The emphasis on sustainability seems vital in these days when natural resources can no longer be seen as limitless.

We would be pleased to have students from your program take our HOL 3500 class, Holistic Approaches to Food. It is an on-line class that is currently offered only in the fall. Should requests for the class increase substantially, we would consider offering an additional section during spring semester.

If you have any further questions, please feel free to contact me.

Sincerely,

Paula Andrasi

Paula Andrasi, Ed.D., Program Coordinator
Associate Professor/Licensed Psychologist
Integrative Holistic Health & Wellness Program
2400 College of Health and Human Services Bldg.
Western Michigan University
1903 W. Michigan Ave.
Kalamazoo, MI 49008-5212
Dear Steve,

Thanks for your note, the Department of English would be delighted to contribute a bacc-level writing class to the Sustainable Brewing major. I want to propose, however, that ENGL3050 might not be the best course for you. Are you aware that starting F18 we have a new class, fully approved as a bacc-level writing class, ENGL4090 Writing in the Sciences. The catalog copy reads as follows:

A course designed for science majors and others interested in science communication. The course is focused on how arguments are constructed and how knowledge is formed in the sciences. Students will learn to analyze historical and current examples of scientific argumentation to inform their own writing and research. A significant component of the course will be dedicated to accommodating scientific information for non-expert audiences, and learning the stylistic and argumentative changes that occur with accommodation. The major projects in this class will revolve around students’ research interests, including possible projects from coursework in the sciences.

Prerequisites & Corequisites: Prerequisite: Junior standing.

Credits: 3 hours

Notes: This course satisfies General Education Proficiency 2: Baccalaureate-Level Writing.

I think this would be a much better fit for your program. What do you think?

Nic

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Nicolas Witschi
Professor and Chair
Department of English
Western Michigan University
Kalamazoo MI 49008-5331
269-387-2571
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

On Aug 10, 2018, at 2:56 PM, Steven B Bertman <steven.bertman@wmich.edu> wrote:

Dear Nick,
We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum ‘track’ includes a ENGL course in the list of possible bacc writing courses. If you're OK with the proposed ENGL offering, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman

<Brewing operations track proposal 2018.v2.doc>
Dear Prof. Andrasi,

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focuses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum 'track' includes a HOL course as an elective option. If you're OK with the proposed HOL offering in this proposal, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!

Steve Bertman
Dear Dr. Bertman:

The Marketing Department is happy to support the proposed Sustainable Brewing Operations Track and the inclusion of MKTG 2500 and MKTG 2900 courses for servicing this track.

All the Best

Mushtaq Luqmani
Chair, Department of Marketing
Haworth College of Business
Western Michigan University

-----Original Message-----
From: Marcellis M Zondag
Sent: Tuesday, August 14, 2018 2:10 PM
To: Mushtaq Luqmani <mushtaq.luqmani@wmich.edu>
Cc: Steven B Bertman <steven.bertman@wmich.edu>
Subject: FW: Sustainable Brewing operations track

Good Afternoon Mushtaq,

I just dropped a hard copy of the attached document off in your office. Jessica told me you are returning later - but I have to leave for GR to teach my MBA class.

The below message from our confrere Steve Bertman is self-explanatory. As a member of the sustainable brewing program advisory board I have been part of the effort in proposing the addition of a business-focused track to the brewing program. As explained in the below message, Steve and I are looking for a note of support from you, as MKTG2500 and MKTG2900 are the courses that will have a number of additional students.

Steve or I are of course available to answer any further questions. I will be back on campus this Thursday.

Marcel

On 8/10/18, 14:39, "Steven B Bertman" <steven.bertman@wmich.edu> wrote:
Dear Marcel,

Below is a message I am sending around for support letters for the new track in Sustainable Brewing that has been submitted to CAS, as we have discussed in advisory board meetings. I’d be very grateful for your comments and suggestions about the best way to channel this through HCOB for the needed support letters.

Hope you’re having a great summer!

Cheers,
Steve

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum 'track' includes a number of MKTG courses as requirements. If you're OK with the proposed MKTG offerings, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman
Steve,

Yes, definitely I approve. Probably the right level of math for this program.

Steve Ziebarth, Chair
WMU Math Department

On 8/10/18, 2:57 PM, "Steven B Bertman" <steven.bertman@wmich.edu> wrote:

Dear Steve,

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum ‘track’ includes a required MATH course. If you're OK with the proposed MATH offering, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman
Steve,

Thank you for including my proposed class Holy Waters: A History of Religion and Alcohol. I look forward to playing in a role on the Sustainable Brewing program!

All the best,

Steve.

Stephen Covell, Ph.D.
Chair, Department of Comparative Religion
Mary Meader Professor of Comparative Religion
Western Michigan University
Kalamazoo, MI 49008-5320
s.covell@wmich.edu
269-387-4365

From: Steven B Bertman
Sent: Friday, August 10, 2018 2:49:23 PM
To: Stephen G Covell
Subject: Sustainable Brewing operations track

Dear Steve,

Welcome back to the real world!

We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been
accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focusses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum 'track' includes your course on Sprits and Spirituality in the list of electives. If you're OK with this offering, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time! Let’s grab a beer some time.

Steve Bertman
Hi Steve,
Yes you have my approval to include the accountancy courses in your program. I’m looking forward to working with the WMU Sustainable Brewing students.
Ola
Steve,

The Department of Management is happy to support the Sustainable Brewing operations track, which includes MGMT2500, *Organizational Behavior* in the Business/economics block and MGMT3120, *Sustainable Operations* as a Sustainable block elective.

**Robert Landeros, Ph.D. Professor of Supply Management, Chairman of the Department of Management, and Director of The Center for Enterpreneurship & Innovation**

**Haworth College of Business, Western Michigan University**

1903 West Michigan Avenue, Kalamazoo MI 49008-5429, United States

- **t:** (269) 387-5802
- **e:** robert.landeros@wmich.edu

On Sep 20, 2018, at 6:20 AM, Steven B Bertman <steven.bertman@wmich.edu> wrote:

Dear Bob,

The CAS curriculum committee is going to discuss the brewing operations proposal on Friday. I need to know by today whether you will support the proposal. I have support letters from every department contributing to the program except for yours. Could you reply to this message with a quick note or let me know if I should ask someone else in your department? Thanks so much.

Regards,

Steve
Dear Bob,

Thank you for your contributions to the brewing effort over the years. We finished the third full year of our WMU Sustainable Brewing major this Spring. The existing program is a partnership between WMU and KVCC that provides an interdisciplinary 4-year curriculum for students interested in the science behind the production of brewing beer. West Michigan has one of the highest per capita densities of craft breweries in the country and the growth of the brewing industry has been accompanied by growth in ancillary and support industries such as distributors, hops farms, malting houses, and analytical services. The program is a serious science curriculum that is not what every student interested in the brewing field wants to pursue. To address common requests from prospective students, we have drafted a curriculum for an separate ‘track’ that focuses more on the operations/business side of the field. I have attached the draft curriculum form and proposed catalog copy to this email.

You'll see that the new curriculum 'track' includes a required MGMT course. If you're OK with the proposed MGMT offerings in this proposal, I would appreciate just a brief email to that effect that I can include with the curriculum proposal. Of course, I welcome any suggestions or comments, and I would be happy to walk you through the proposed structure of the track, if you would like; please let me know.

Thanks so much for your time!
Steve Bertman

<Brewing operations track proposal 2018.v2.doc>
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Steve Bertman