

Commission on Graduate Studies and Policies
Resolution CGSP 2016-17F
Resolution to Establish a Horticulture Major within the Master of Science
in Life Sciences Degree

Approved, Commission on Graduate Studies and Polices	December 7, 2016
Faculty Senate Review	Waived
First Reading, University Council	February 6, 2017
Second Reading, University Council	March 13, 2017
Approved, President	March 13, 2017
Effective Date:	Spring 2017

WHEREAS, the Master of Science in Horticulture was discontinued effective fall 2017; and

WHEREAS, the Master of Science in Life Sciences degree offers students similar educational opportunities as the Master of Science degree in Horticulture did; and

WHEREAS, the College of Agriculture and Life Sciences proposes a horticulture major within the Master of Science in Life Sciences degree; and

WHEREAS, the new major will prepare students for careers in horticulture; and

WHEREAS, Virginia Tech is uniquely suited to offer such a major due to its established partnerships in plant sciences; and

WHEREAS, the establishment of the horticulture major aligns with the College of Agriculture and Life Sciences' strategic plan to enhance graduate student numbers; and

WHEREAS, the proposed major will increase the quality of graduate programs and the number of students completing degrees;

THEREFORE, BE IT RESOLVED, that the Major in Horticulture be approved for addition to the Master of Science in Life Sciences effective Spring 2017 and the proposal forwarded through University governance and to the President for approval.



VirginiaTech

College of Agriculture
and Life Sciences

Department of Horticulture

301 Saunders Hall (0327)
Blacksburg, Virginia 24061
540/231-5451 Fax: 540/231-3083
E-mail: rharris@vt.edu
www.hort.vt.edu

October 20, 2016

CALS Curriculum Committee
VT Campus

Re: Master of Science in Life Sciences – Horticulture Major

Dear Curriculum Committee:

Our long-standing MS in Horticulture degree was recently deactivated since our graduate students are now mostly pursuing a PhD degree. However a MS degree that concentrates in Horticulture is still actively sought and very relevant to today's academic and industry communities. Our students are increasingly involved in multidisciplinary projects and we have a common base in Life Sciences with the different majors within the MSLS degree. We would therefore like to join the MSLS degree with a major in Horticulture. We require no new resources to join the MSLS degree and I support the inclusion of HORT 5004 and HORT 5994 to be listed as requirements.

Sincerely,

J. Roger Harris
Professor and Head
Department of Horticulture

Invent the Future

COVER SHEET - NEW and REVISED CHECKSHEETS, OPTIONS, CONCENTRATIONS and DEGREES

Commission on Undergraduate Studies and Policies/ Commission on Graduate Studies and Policies
Effective September 2010

•SEE APPENDIX FOR NOTES, EXPLANATIONS AND ADDITIONAL GUIDELINES•
•PRINT CLEARLY, TYPE or COMPLETE ELECTRONICALLY•

PROPOSAL DATE: 8-28-16 **15-DAY REVIEW END DATE:** 9-2

DEPARTMENT: Horticulture

DEGREE NAME: Master of Science in Life Sciences - Horticulture Concentration major

MAJOR **MINOR** **OPTION/CONCENTRATION**

GRADUATE CERTIFICATE **UNIVERSITY CONCENTRATION**

DEAN and/or DEPARTMENTAL CONTACT: Roger Harris **CONTACT MAILCODE:** 0327

CONTACT PHONE: 231-5451 **CONTACT E-MAIL:** Rharris@vt.edu

CHECK ONLY ONE OF THE FOLLOWING BOXES

NEW UNDERGRADUATE CHECKSHEET **REVISED CHECKSHEET** [Revision > 20% _____ Revision < 20% _____]
(Attach copy of current APPROVED checksheet)

NEW MINOR **REVISED MINOR** **DISCONTINUED MINOR**
(Attach copy of current APPROVED checksheet) (Attach Transition Plan)

NEW OPTION **REVISED OPTION** **DISCONTINUED OPTION**
(Attach copy of current APPROVED checksheet) (Attach Transition Plan)

NEW UNIVERSITY CONCENTRATION **REVISED UNIVERSITY CONCENTRATION** **DISCONTINUED UNIVERSITY CONCENTRATION**
(Attach copy of current APPROVED checksheet) (Attach Transition Plan)

NEW CONCENTRATION **REVISED CONCENTRATION** **DISCONTINUED CONCENTRATION**
(Attach copy of current APPROVED checksheet) (Attach Transition Plan)

NEW GRADUATE CERTIFICATE **REVISED GRADUATE CERTIFICATE**

NEW DEGREE **REVISED DEGREE** **DISCONTINUED DEGREE**
(Attach Transition Plan)

• **EFFECTIVE DATE: GRADUATING CLASS OF** (List Year Only) 2017

- **FOR ALL CHECKSHEETS, NEW AND REVISED:** Attach Statement from Dean or Departmental Representative Outlining the Changes from the Currently APPROVED Checksheet and Method(s) of Communication to Students Impacted by these Changes.
- **Attach Appropriate Letters of Support from Affected Departments and/or Colleges**
- **Revised checksheets with 20% or less revision can be forwarded directly to the Office of the University Registrar (0134) for Administrative Approval. Supporting documentation should be attached.**

~~Revision Summary:~~ For Enrollment Fall 2016

APPROVAL SIGNATURES

Department Representative [Signature] Date: 8/31/16
College Curriculum Committee Representative [Signature] Date: 8/31/16
College Dean [Signature] Date: 8/31/16

Class Requirements for Master of Science in Life Sciences – Horticulture Major

All classes must be taken A-F if offered as such.

MSLS Core:	
BCHM 5124 (Biochemistry in Life Sciences - Fall)	3
STAT 5615 (Statistics in Research 1 - Fall)	3
STAT 5616 (Statistics in Research 2 - Spring)	3
ALS 5204 (Research and Information Systems in Life Sciences – Fall)	3
ALS 5964 (Field Study - Fall/Spring)	1
ALS 5324 (Research Ethics in Agriculture and Life Sciences - Fall)	1
ALS 5334 (Professional Communication in Ag & Life Sciences – Spring)	1
Other:	
HORT 5004 Horticulture Seminar (1 hr; Pass/Fail; Spring of final year)	1
HORT, CSES, PPWS, BCHM, FREC, ENT, GRAD 5004 (4000-6000; min-max)	4-8 ¹
<i>(minimum classroom requirement)</i>	<i>(20)</i>
HORT 5994 - Research (fall/Spring; min-max)	6-10
Total Credit Hours Required	30²

¹Independent study not applicable; 6 hours max for 4000 level.

²Maximum of 11 classroom credit hours can be transferred from a non-VT program.

Taylor, Anna

From: Taylor, Anna
Sent: Thursday, October 20, 2016 12:58 PM
To: Taylor, Anna
Subject: FW: MS in Life Sci - Horticulture Major

Importance: High

From: Sumner, Susan
Sent: Thursday, October 20, 2016 12:27 PM
To: Taylor, Anna <ataylor@vt.edu>
Subject: Re: MS in Life Sci – Horticulture Major
Importance: High

Anna,

The courses listed below may be included in the core for the master of science in life sciences degree for the Horticulture Major. In addition, students in this new major will also take courses in CSES, PPWS, BCHM, and ENT, which are departments within the College of Agriculture and Life Sciences, as appropriate for the major. No new resources are needed as students in the former Horticulture Degree also took courses offered by these departments.

At the suggestion of the committee, BIOL courses were removed from the list of courses.

Susan Sumner
Associate Dean and Director of Academic Programs
College of Agriculture and Life Sciences
Litton Reaves , 1060, Virginia Tech (0334)
175 West Campus Drive
Blacksburg, VA 24061
sumners@vt.edu
540-231-5290
540-231-6741 (fax)

From: Anna Taylor <ataylor@vt.edu>
Date: Friday, August 26, 2016 at 3:20 PM
To: sumners <sumners@vt.edu>
Subject: MS in Life Sci - Horticulture

Dear Dr. Sumner,

Attached is a list of class requirements for the new Master of Science in Life Sciences – Horticulture Major that is being added to the current master of science in life sciences. As you know, a resolution to discontinue the Master of Science in Horticulture was approved last year, as well as the Master of Science in Dairy Science with the intent of creating the Master of Science in Life Sciences with a major for Horticulture and a major for Dairy Science.

The following courses are listed as core classes for the Master of Science in Life Sciences and are already core classes for the master's program so there will not be an increase in student enrollment for this course for this major:

ALS 5204, Research and Information Systems
ALS 5964, Field Study

ALS 5324, Research Ethics in Agriculture and Life Sciences
ALS 5334, Professional Communication in Ag and Life Sciences

Please reply back to this email as to whether or not it is acceptable for these courses to be listed as Master of Life Sciences core classes. I need your reply by the end of the day on Monday, August 29 if possible.

Please let me know if you have any questions.

Thank you,

Anna Taylor
Administrative Assistant and Curriculum Coordinator
College of Agriculture and Life Sciences, Academic Programs (0334)
1060 Litton-Reaves, Virginia Tech
175 West Campus Drive, Blacksburg, VA 24061
540-231-6939 (phone) <http://www.cals.vt.edu>

Taylor, Anna

Subject: FW: MS in Life Sci - Horticulture

Importance: High

From: Pablo Sobrado [mailto:psobrado@vt.edu]

Sent: Friday, August 26, 2016 10:49 PM

To: Taylor, Anna <ataylor@vt.edu>

Subject: Fwd: MS in Life Sci - Horticulture

Importance: High

Hi Anna,

I am the new director of the graduate program in Biochemistry. Yes, it is acceptable to include BCHM 5124 in the MS program. Let me know if you have any questions.

Pablo

Dr. Pablo Sobrado
Professor
Graduate Program Director
Director of the Center for Drug Discovery Screening Lab
Department of Biochemistry
Virginia Tech
360 West Campus Drive
Blacksburg, VA 24061

540-231-9485

psobrado@vt.edu

URL: sobradolab.weebly.com

From: "Taylor, Anna" <ataylor@vt.edu>

Date: Friday, August 26, 2016 at 2:48 PM

To: Michael Klemba <klemba@vt.edu>

Cc: "Sumner, Susan" <sumners@vt.edu>

Subject: MS in Life Sci - Horticulture

Dear Dr. Klemba,

Attached is a list of class requirements for the new Master of Science in Life Sciences – Horticulture Major that is being added to the current master of science in life sciences. As you know, a resolution to discontinue the Master of Science in Horticulture was approved last year, as well as the Master of Science in Dairy Science with the intent of creating the Master of Science in Life Sciences with a major for Horticulture and a major for Dairy Science. However, Dairy Science is now considering becoming part of the Master of Science in Animal and Poultry Sciences.

BCHM 5124, Biochemistry in Life Sciences, is listed as a core class for Master of Science in Life Sciences and is already a core class for the master's program so there will not be an increase in student enrollment for this course for this major.

Please reply back to this email as to whether or not it is acceptable for BCHM 5124 to be listed as a Master of Life Sciences core class. I need your reply by the end of the day on Monday, August 29.

Please let me know if you have any questions.

Thank you,

Anna Taylor
Administrative Assistant and Curriculum Coordinator
College of Agriculture and Life Sciences, Academic Programs (0334)
1060 Litton-Reaves, Virginia Tech
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Taylor, Anna

Subject: FW: MS in Life Sci - Horticulture

From: Fricker, Ronald
Sent: Sunday, August 28, 2016 12:54 PM
To: Sumner, Susan <sumners@vt.edu>
Cc: Taylor, Anna <ataylor@vt.edu>
Subject: Re: MS in Life Sci - Horticulture

Hi Susan (and Anna): Got it. Then please take this e-mail as my endorsement of the change to your program with the usual caveats about the availability of resources.

In particular, please note that demand for STAT 3615 is continuing to grow and we may soon have a backlog of students. (This semester we hit our cap of 250 students in the class.) We will, of course, endeavor to support it to the best of our ability.

Sincerely,
Ron

From: "Sumner, Susan" <sumners@vt.edu>
Date: Sunday, August 28, 2016 at 11:45 AM
To: Ron Fricker <fricker@vt.edu>
Cc: "Taylor, Anna" <ataylor@vt.edu>
Subject: Re: MS in Life Sci - Horticulture

Ron

I do not expect growth in this major. That is one reason we are forming a school of plant and environmental sciences. Ultimately, this major will end in three years as the school plans a new degree combining the degrees in the 3 departments joining in the school. I am glad to hear your enrollment is going up as I hear that most departments have seen a decrease in graduate student numbers

Susan

Sent from my iPhone

On Aug 28, 2016, at 11:08 AM, Fricker, Ronald <fricker@vt.edu> wrote:

Hi Susan: That's reassuring as we've been seeing significant growth across many of our classes. So, one additional question: what sort of growth do you expect in the new program?

Best,
Ron

Sent from my smartphone.

On Sun, Aug 28, 2016 at 10:51 AM -0400, "Sumner, Susan" <sumners@vt.edu> wrote:

Ron

While the former horticulture requirement had one class, most of the students actually took two classes. There are less than 10 students in this program so I do believe the impact will be minimal.

Susan

Sent from my iPhone

On Aug 28, 2016, at 9:36 AM, Fricker, Ronald <fricker@vt.edu> wrote:

Dear Anna,

As I look at the old MS in Horticulture course requirements, I see that students could have taken a variety of statistics classes (STAT 5605-5606, 5615-5616, 4204, 5204, or 5624), where the minimum requirement is that they must take one of these classes. Now it seems that all students will be required to take both STAT 5615 and 5616, so for us that represents an effective doubling of the number of students we will see in class. Am I interpreting the change in requirements correctly?

Sincerely,

Ron

—

R.D. Fricker, Jr., Ph.D.
Professor and Head
Department of Statistics (MC0439)
Hutcheson Hall, RM 406-A, Virginia Tech
250 Drillfield Drive
Blacksburg, VA 24061

(540) 231-7754 (office)

(831) 869-8414 (cell)

rf@vt.edu

From: "Taylor, Anna" <ataylor@vt.edu>

Date: Friday, August 26, 2016 at 3:14 PM

To: Ron Fricker <fricker@vt.edu>

Cc: "Sumner, Susan" <sumners@vt.edu>

Subject: MS in Life Sci - Horticulture

Dear Dr. Fricker,

Attached is a list of class requirements for the new Master of Science in Life Sciences – Horticulture Major, in the College of Agriculture and Life Sciences, that is being added to the current master of science in life sciences. A resolution to discontinue the Master of Science in Horticulture was approved last year, as well as the Master of Science in Dairy Science with the intent of creating the Master of Science in Life Sciences with a major for Horticulture and a major for Dairy Science. However, Dairy Science is now considering becoming part of the Master of Science in Animal and Poultry Sciences.

STAT 5615, Statistics in Research 1, and STAT 5616, Statistics in Research 2 are listed as core classes for Master of Science in Life Sciences and is already a core class for the master's program so there will not be an increase in student enrollment for this course for this major.

Taylor, Anna

From: Jay Sullivan <jsulliv@vt.edu>
Sent: Thursday, October 20, 2016 3:17 PM
To: Taylor, Anna
Cc: Sumner, Susan; Harris, Roger; Day, Susan
Subject: Re: MS in Life Sci - Horticulture Major

Anna,

At this time, we agree to having our courses added to this MS degree. Please be aware that many of our 4000-6000 level courses have pre-requisites, and that course instructors have discretion about enforcing the pre-reqs for their courses. Also note that our courses are now designated as FREC, rather than FOR as you have on your course requirements.

Jay

Jay Sullivan
Professor and Department Head
Department of Forest Resources and Environmental Conservation
College of Natural Resources and Environment
Virginia Tech
jsulliv@vt.edu, 540-231-4356

On Thu, Oct 20, 2016 at 2:14 PM, Taylor, Anna <ataylor@vt.edu> wrote:

Dear Dr. Sullivan,

Attached is a list of class requirements for the new Master of Science in Life Sciences – Horticulture Major that is being added to the current master of science in life sciences.

Please reply back to this email as to whether or not it is acceptable for Forestry courses to be listed as per the attached course requirements.

I apologize for the short notice, but If possible, I need your reply by the end of the day tomorrow, October 21.

Please let me know if you have any questions.

Thank you,

Reply from Dr. Roger Harris to GCC Comments:

The new Horticulture major in the Master of Science in Life Sciences program is a thesis-based degree whose focused research is accounted for by 6-10 credit hours of supervised research on a horticulture topic. Research results are presented orally in an organized seminar class consisting of other Horticulture graduate students and interested faculty and staff. The thesis research is supported by the MSLS core and 4-8 credit hours of other classes that relate to the chosen project. These support classes include those offered by the Horticulture department and related classes taught by other departments. For example, a student working on pollination ecology within an organic tomato field will take an entomology class taught by the Entomology department. A student studying stormwater mitigation contribution of urban shade trees will take a soils class taught by the CSES department. A student studying wine grape quality in humid Virginia may take classes in plant pathology and plant physiology taught by the PPWS department. In other words, the 4-8 hours of graded classroom credit needs to include the flexibility of choosing Horticulture or other relevant classes because of the diverse nature of Horticulture. The exact classes needed are determined by the Horticulture Thesis.