## I. Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Member Type</th>
<th>Email</th>
<th>Contact Phone</th>
<th>Responsible for what part</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. Agudelo-Silva</td>
<td>Primary Team Member</td>
<td><a href="mailto:fernando.agudelosilva@marin.edu">fernando.agudelosilva@marin.edu</a></td>
<td>415-457-8811 x 7397</td>
<td>whole program review</td>
<td></td>
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</tbody>
</table>

## II. Program Review Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Committee (Chairs)</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Schultz</td>
<td>Curriculum Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blaze Woodlief</td>
<td>Educational Planning Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V-Anne Chernock and Erik Dunmire</td>
<td>Facilities Committee Co-Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yolanda Bellisimo</td>
<td>Planning and Resource Allocation Committee Co-Chair/Academic Senate President</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nick Chang</td>
<td>Planning and Resource Allocation Committee Co-Chair/Instructional Equipment Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sara McKinnon and Becky Brown</td>
<td>Program Review Committee Chair and SLO Coordinators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chris Schulz</td>
<td>Student Access and Success Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Irvine</td>
<td>Tech Committee Chair</td>
<td></td>
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</table>

## III. Vice President of Academic Affairs

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nick Chang</td>
<td></td>
<td></td>
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</tbody>
</table>

## IV. Board of Trustees President

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eva Long</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Program Overview—Introduction

ELND-2011

Instructions: Use this form to quickly outline your program at College of Marin. Briefly answer each of the questions and use bullet points whenever possible. Provide any attachments that substantiate or expand on the questions below.

I. Program Definition
Outline the unique qualities that define the importance of your program.

Program Definition:

Outline the unique qualities that define the importance of your program:

This program is very important for Marin county because of the actual and potential users, (students), in the program:

The culture of Marin County: People in Marin county are very interested in a wide range of activities which include plants; those activities fall in these categories: Gardening, Landscaping, conservation of natural resources and farming. These activities range from traditional approaches to specialties such as organic modalities. Traditional approaches are more dominant that organic approaches. Thus the program should serve those two modalities. People in Marin County want access to good quality, well priced education in subjects related to plants.

The people who used the program include: homeowners who want to take care of their gardens or landscapes, individuals who want to be qualified to work in the gardening, landscaping or farming industries.

Because of transportation matters, residents of Marin County, want to have access to gardening, Landscaping and farming classes in Marin county and not to have to travel to the East Bay, San Francisco or Sonoma County to take gardening, landscaping or farming classes. Because of the transit patterns in Marin County, people who reside in the Southern Marin, would prefer to take classes at the Kenfield campus; residents in North Marin, prefer to take classes at Indian Valley Campus. Thus the program should offer classes in both locations.
The program has established partnerships with the Master Gardeners Program of the University of California, and the North Bay Conservation Corps, Southern and Northern Marin water district, and the Marin County Board of Supervisors. The full time college of Marin faculty, partially assigned to the program has cooperates in plant related projects with the Salmon Protection and Watershed Network, Spawn, The California Native Plant Society, the Marin Carbon Project, and the Berkeley Lawrance National Laboratory.

The **Mission** and **Goals** of the program align with the College Mission and Goals and I recognize that the program like any dynamic organization should respond to community needs and needs constant review to adjust to adapt to current economic and cultural conditions.

**II. Program Purpose**

**Pathway:**
Career Tech. Ed.

**Briefly describe how your program fits into the pathways you have chosen.**

**PRIMARY GOAL:** Career/Work Training: To train people to work in a wide scope of plant-related activities for aesthetic, environmental and economic benefits. For example: to design, establish and maintain gardens, landscapes and farms for pleasure, for food, economic or environmental benefits.

**OTHER ROLES OF THE PROGRAM-** Other goals of the program address the other Pathways of College of Marin: Basic skills, Cultural Enrichment, Life-long learning and transfer. Students in the Environmental Landscaping programs could take other classes in College of Marin and transfer to plant related programs in four year schools. For example, Landscape Architecture, Environmental Sciences, wildlife management, botany, environmental resource management, natural history, agronomy, viticulture.

**III. Students Served**

**Briefly outline what students are served in your program.**

**III. Students Served**
Because the special demographics of Marin County, we serve an extremely wide variety of students divided in these categories:

a) English speaking people with good basic skills in languages and mathematics with high school education, undergraduate and or graduate degrees.

b) English speaking people with poor basic skills in languages and mathematics.

c) Non-English speaking people with inadequate basic skills in languages and mathematics. This is a potential good source of students because culturally many of them have cultural roots in plant related industries and want to get a job in a plant related occupation. This is a particularly challenging group to serve because of their inadequate English, mathematical skills and funds to finance their education.

I believe that this group can be a significant source of new students for the college if we provide the mechanisms to retain them in the program and remedy the language and mathematics limitations and some sort of financial aid. Perhaps the program could participate in the Basic Skill initiatives at the college to attract non-English speaking students to the program.

d) Non-English speaking with good basic skills in languages and mathematics with undergraduate and or graduate degrees. These students want to take classes for relaxation or to find new careers in plant related industries.

During the Fall of 2011, the program served 84 students who took five classes: Organic farming, Introduction to Environmental Landscaping A and B), Introductory Principles of Sustainable Landscape Design and Integrated Pest Management in Landscapes, farms and Gardens. The average class size was 21 students. The largest enrollment was in the Fall Practices of Organic farming and Gardening (34). The lowest enrollment was in Integrated Pest Management (5).

During the current term, Spring 2012, we have a total of 114 students in four classes:

ELND 101: 29
ELND 109S: 37
ELND 160: 28
ELND 190: 20
IV. Program History
Briefly outline the recent history of your program.

RECENT HISTORY:
NOTE: I have elected to keep in this section the more distant history of the program in the section, distant history below, as a resource for those people who want to have a long term view of the evolution of this program and its evolution. The program has gone through major phases and it is useful to refer to them to understand the current situation of the program and to plan for the future.

Current enrollment in the program appears good within the not too distant history of the program. Fall 2008 and Spring 2009 had very low enrollments. Currently we offer four classes and with an average of 28 students for class. The maximum enrollment in a class is 37 (organic farming) and the lowest 20 (irrigation). It is important to keep in mind the enrollment history in the program. See figures for enrollment below for a recent historical trend in enrollment.

Spring 2007............87

Spring 2008..........162

Fall 2008..............52

Spring 2009.........59

Fall 2009..............103

Spring 2010...........109

Fall 2010..............132

Spring 2011...........91
Fall 2011............84

Spring 2012........113

A fairly recent significant change in the program has been the creation of curriculum in organic farming, the creation of an organic farm, having access to a modern greenhouse and full time personnel to manage the farm. The organic farming curriculum benefits from strong partnerships with The North Bay Conservation Corps and the University of California, Master Gardeners Program.

The Program has established partnerships with the University of California Masters Gardener Program, the Northern and Southern Marin Water Districts, the Marin County Board of Supervisors; The program is also collaborating with the California Apprenticeship Program to develop apprenticeships in farms and has received funding from the Marin County Board of Supervisors to establish a Summer Work Experience program.

As a result of an Educational Excellence Innovation fund grant that I received from the college in 2007, I lead the effort to Northern California Water Technology and Education Center, WaMTEC, in 2007. This is good platform to build more irrigation classes to increase enrollment and serve the county better.

DISTANCE HISTORY OF THE PROGRAM

The full time faculty fully assigned to the program for many years retired in May 25, 2001. By this time the facilities of the program were very deficient and needed improvement. The greenhouse, shade-house and orchards needed maintenance. The irrigation systems and the greenhouse control system were defective. The equipment available for teaching needed improvement: there were not enough power drills, power saws, drill presses, power circular saws, scales, equipment such as pH meters, sieves for soil studies, incubators to teach soil sciences and plant propagation classes, no microscopes or prepared slides to teach insect or plant pathology classes, growth chambers for plant growth studies.

Many factors contributed to the shortcoming in the facilities: Most of the maintenance was done by the faculty assigned to the program and his students; this was not appropriate because of lack of time; it is not possible or advisable for faculty to teach and do facilities maintenance. The main job of the faculty is to teach and support students. Facility maintenance requires dedicated professionals whose main job is maintenance; faculty and students should not do maintenance also because liability issues related to conducting repairs such as water lines, electricity to run irrigation valves.
When the full time faculty assigned to the program retired in 2001, the Dean of Career Education at the time had a thorough consultation with a wide variety of people in Marin County related to the gardening and landscape industry to determine the future of the program. Groups consulted were the Department's Advisory Board, and other Departments at the college: Biology and Physical Education. The conclusion was that the Department should be kept and revitalized to reflect current state of the art in the field and to develop joint curriculum with the Biology and Physical Education Departments.

During the time that the Dean went through the process to determine the future of the program, I was part of the Advisory Board of the Department and part time instructor in the program and supported the idea to keep the Department open at least on a temporary basis until it could be properly reviewed and funded. On August 8, 2001, the Dean hired me as coordinator of the program, and on August 13 she hired another instructor Quin Ellis to start teaching part time in the program to keep the Department in operation and keep offering classes. To provide some maintenance for the facilities, she hired an hourly worker dedicated to perform minimum maintenance of the greenhouse, orchard and shade house and the extensive, although neglected, teaching plant collection.

The remedial measures taken by the Dean were successful because the program was not eliminated which would have been very negative for the College in light of the strong interest in Marin county for gardening, landscaping, urban agriculture, food systems and conservation. The program continued to function in a limited way because of the limited resources allocated to the program. In 2004 there was an important development for the Program: The College made a long term commitment to strengthen the program based on recommendations from the Career Education Dean, a market study contracted to assess the need of the program in the College and recommendations from the Department's Advisory Board, in which I participated, and consultations with other Departments in the College. The consensus was that the Department should continue because it played an important role providing educational services in the County and clearly contributed to fulfill the college Mission and Goals. It was determined that to start the process to restructure the program it was necessary to have a full time faculty member partially assigned to the program and develop a pool of part time qualified instructors. It was also determined that the College would address the following matters that are crucial for the success of the program: coordination of the program by full time faculty specialized in a plant-related discipline, increase the pool of part time faculty, renew the curriculum, increase inter-departmental cooperation, promote the creation of remedial programs to address the English and mathematics limitations of Spanish speaking people who could enroll in the program and improvement and better maintenance of facilities such as greenhouse, shade-house, construction and irrigation shop, landscape design laboratory, land for open field demonstrations, laboratories with microscopes, equipment and slide collections to teach classes related to insects and plant diseases, more outreach and marketing.
To implement the above recommendations, the College created a joint faculty position in Biology and Environmental Landscaping in 2004 and in January 2005 I was hired full time and jointly assigned to the Biology and Environmental Landscaping Programs. Because of the importance of direct coordination of the program by faculty with knowledge in the Environmental Landscaping and horticulture fields, I was assigned two units to coordinate the program but after one year of my hiring the coordination units were removed. This affected the improvement of the program because I did not have enough time to promote the program, coordinate maintenance and in some cases do small maintenance activities in irrigation, in addition to fulfilling my teaching assignments.

The program was based at the Kentfield Campus until 2007. That year in response to community requests and with the intent to serve the northern part of the county, the program was moved to the Indian Valley Campus, IVC. This move was gradual and we started to offer irrigation classes, Introductory Landscaping and construction classes there. In addition we kept offering some classes at the Kentfield campus. This was done to serve student population in the southern part of the state who would not attend classes at IVC because of logistic reasons and also because of lack of facilities at IVC. This is understandable considering that we were are in a transition phase.

We continued to expand our activities to the Indian Valley Campus, IVC and keep some presence offering one class at the Kentfield campus. Since the program moved to IVC we offer at times one class at Kentfield. I recommend that we keep some presence at the Kentfield campus to serve people in the Southern part of the county.

There have been important developments for the program and they can be used to keep improving it. In July 2007, The College created a center for Water Management and Technology Education Center, WaMTEC. Partners include Marin Municipal Water District, the College of Marin, the County of Marin, North Marin Water District, Joint Venture Marin and the California Landscape Contractors Association. This center was created as a result of a faculty driven initiative. F. Agudelo-Silva and strongly supported by the Dean Nanda Schorske, Chairman Ronald Palmer and President Frances White.

The Indian Valley Organic Farm & Garden was created in 2007 to train students in careers related to the green industry and fostering countywide agricultural literacy and environmental sustainability.

As part of the revitalization program we have a construction shop, new equipment such as power saws, equipment and dissecting microscopes.
An additional proof of the quality of our program is the award that we won at the San Francisco Flower and Garden Show in March 2007. This award was for a Sustainable Landscape that we designed and built. We were the only community College from the California that exhibited a landscape. The project was an inter-departmental cooperation between the Environmental Landscaping and Biology Departments and community organizations such as Salmon Protection and Watershed Networks, SPAWNUSA, the Marin Water District and The Marin Conservation Corps. The success in this project is evidence of the quality of our current program and the potential for excellence.

Support from the College Administration has been crucial for the development of the program; it was rescued from extinction by former Dean Lorraine Wilson and greatly supported by the current Dean Dean Nanda Schorske and Chairman Ron Palmer. The Dean has obtained several grants that greatly assist the program.

There have been plans to have cooperation with the Biology Department and this needs work. There is great potential for synergy between the Landscaping Department and the Biology Department because of the overlap of some disciplines taught in both departments. For example, plant related classes such as plant identification and plant diversity, soils, food and agriculture, environmental and ecology classes.

I believe that most promising areas of cooperation between landscaping and biology could be soils science and irrigation.

Attachments:
List and briefly describe any attachments
# Faculty Members

## ELND-2011

**I. Program Faculty**

List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agudelo-Silva</td>
<td>Fernando</td>
<td></td>
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**Status:**

- Shared W/other program(s):
  - Full-time, tenured Yes

<table>
<thead>
<tr>
<th>Summer TU</th>
<th>Fall TU</th>
<th>Spring TU</th>
<th>Reassigned (Total)</th>
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</table>

**Years of Service:**

- Specialty:
  - Biology and Environmental Landscape, Environmental and Health Sciences, Integrated Pest Management

**Leadership:** List involvement in committees or other service

Member of the Facilities Planning for the last five years. Three years as director.

Founder and Faculty Sponsor of the Land Sustainability Student Club

Founder and main promoter of the Biology Department Botanical Garden and Arboretum

Member of the Museum Committee for College of Marin.

Founder of the Water Management and Technology Center at College of Marin

Recipient of several EEIF's grants. One to develop a garden at College of Marin, a second one to develop a Water Management Center and a third one to add an on-line component to the Human Nutrition Class, Biology 100

Promoter of Internships for College of Marin Students at the Berkeley Lawrence National Laboratory. Students work in projects in Microbial Ecology

**List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
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<tbody>
<tr>
<td>Buckner</td>
<td>Lisa</td>
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**Status:**

- Shared W/other program(s):
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</table>
Years of Service: 2  
Specialty: organic farming and gardening

Leadership: List involvement in committees or other service

Liza assists in curriculum development and teaching of classes on organic gardening and landscaping.

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List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
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<tbody>
<tr>
<td>Burgi</td>
<td>Charlene</td>
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Status: Part-time, ETNUM  
Shared W/other program(s): No

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Years of Service: 3  
Specialty: Irrigation

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Leadership: List involvement in committees or other service

Charlene plays an important role advising with matters regarding water management classes.

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List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
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<tbody>
<tr>
<td>Johnson Rudnick</td>
<td>Wendy</td>
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Status: Part-time, ETNUM  
Shared W/other program(s): No

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Years of Service: 1  
Specialty: Organic gardening and farming

Leadership: List involvement in committees or other service

Ms. Johnson plays an important role in classes related to organic farming and assists in curriculum development.
Keator  Glenn

**Status:**  Shared W/other program(s):
Part-time, ETNUM  No

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<th>Summer TU</th>
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<th>Spring TU</th>
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<tbody>
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</tbody>
</table>

**Years of Service:**  Specialty:
2  Plant identification

**Leadership: List involvement in committees or other service**

Glenn assists in curriculum development

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List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
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</thead>
<tbody>
<tr>
<td>Swain</td>
<td>Steve</td>
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**Status:**  Shared W/other program(s):
Temp Pool  No

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<tr>
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</tbody>
</table>

**Years of Service:**  Specialty:
1  Integrated Pest Management

**Leadership: List involvement in committees or other service**

Steve works full time for the University of California Extension service and brings a broad range of knowledge in integrated pest management to the program
## Non-Instructional Support Staff

### I. Current Support Staff

#### List of Support Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Purpose</th>
<th>Hours/Week</th>
<th>To support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Julie Oyle</td>
<td>Full-Time</td>
<td>Other</td>
<td>?</td>
<td>4 Classes</td>
</tr>
</tbody>
</table>

**Leadership: List involvement in committees or other service**

I can not provided information about the time Ms. Oyle allocates to provide administrative support to program because I am not her supervisor. The Dean or the Chair or the program know that information.

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<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Purpose</th>
<th>Hours/Week</th>
<th>To support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurie Loeffler</td>
<td>Full-Time</td>
<td>Clerical</td>
<td>?</td>
<td>4 Classes</td>
</tr>
</tbody>
</table>

**Leadership: List involvement in committees or other service**

I can not provide information about how many hours Ms. Loeffler allocates to support the Program because I do not supervise her. The Dean or Chair of the Program are the people who know that information.
Facilities Questionnaire
ELND-2011

What are the existing facilities issues that impact student access and success, or health and safety? (address any of the following: Size, location, conditions, maintenance, features, a/c, lighting, adjacencies, other.)

The program has access to adequate size classrooms at Indian Valley campus where the program is based. The program also uses a classroom at Kentfield to teach a class identification class which requires the extensive plant variety at the Kentfield campus.

Laboratories: The program has been gradually updating a laboratory at IVC to make this facility a soils laboratory. The size of this laboratory is adequate but its temperature control is inadequate and its ceiling needs repair.

Request:

A. This laboratory still needs more equipment and supplies. Soils science is a equipment intensive endeavor. I have been gradually requesting equipment, supplies and facilities modifications; I have received some equipment, some facilities modifications have been done.

B. The temperature control of this laboratory must be fine tuned. At times, students complain about low temperature and this affects students success.

C. I will continue to request more supplies and equipment. I have done this every time I there is the opportunity.

Growing plant conditions:

Greenhouses:

The program has a new modern greenhouse totally dedicated to organic practices. This is a good use since we have a popular class in organic gardening and farming.

The program has a small greenhouse that needs to be fitted with irrigation and heating.

Requests:

A. We need another larger modern greenhouse to teach non-organic farming and landscaping. There is demand for non-organic gardening, landscaping and farming classes and we need to have a good greenhouse to teach conventional plant care practices.
B. The small greenhouse should be upgraded. It needs irrigation, electricity and temperature control.

C. I am requesting land at IVC to teach conventional plant care practices. These cannot be practiced at the organic farm because of regulations.
Student Access and Success

I. Access

Demographic, enrollment and student success information is available in the Data Dashboard which can be accessed through ARGOS. Please use this information and your faculty’s own anecdotal experience to answer the following questions.

Significant barriers that influence student access to the program:

A. Economic: Many students interested in gardening, farming and landscaping lack funds to be able to allocate enough time to study.
   My proposals:
   1. To assist students to secure funds for their education.
   2. To establish partnerships with employers to have their employees take classes in our program and be paid to do that.

B. Math skills: Many students lack the proficiency in basic mathematics needed to succeed in some of our classes. For example in the soil class I teach, students should be able to calculate percentages of water in soils, volume of soils to fill trenches, calculation of pressure in irrigation lines. Many students do not perform well because their deficiencies in math skills.
   My proposal:
   To offer remedial a class(es) in math for gardening, landscaping and farming. This could be a class that is offered every semester and offer it to students who are deficient in math.

C. Location. I believe that if we offered more classes in Kentfield, we could increase enrollment in the program. We have potential students in southern Marin that would not travel to IVC to take classes. The reverse is also true.
   My proposal:
   To offer certain popular classes such as organic farming, soils, plant identification both in IVC and Kentfield. I am aware that this needs discussion because unit allocation.

II. Student Success

Based on course completion rates and grades in your courses (available on the Data Dashboard), and more importantly, based on you and your colleagues experiences in class, what do faculty in your discipline feel are significant factors or barriers influencing student success in your courses or programs? Please begin with: Students who don’t succeed often struggle with__________,” and then analyze what you think are the reasons behind their difficulties which could range from socio-economic factors to issues more directly related to course work or presentation.

Students who don’t succeed often struggle with:
A. Class attendance
B. Lack of funds to purchase textbooks
C. Writing term papers
D. Following instructions
E. Critical thinking
F. Math skills
G. Writing skills

My analysis of reasons behind their difficulties:

A. Economic: Many students lack funds to purchase textbooks.
B. Socioeconomic and cultural: Some students come from homes where going to college was not a tradition or expected therefore students are not motivated to complete their education.
C. Lack of study skills: Many students do not know how to study.
D. Lack of test taking skills

Based on the points mentioned above, I strive in my class to offer remedies to those limitations. Clearly these are limitations which require attention from the College.

III. Improving Student Success and Retention
Please check off which of the following student support services your students used:
- Bookstore
- Computer Labs for student use
- Counseling
- DSPS
- Financial Aid
- Library
- Transfer Center
- Tutoring

What is their level of satisfaction? Are your students having any problems with any of these services? If so, please explain.

Some students complain that counselors are not familiar with career paths in gardening, landscaping and farming.
IV. How do you make sure your students are able to get through your program in a timely fashion? (e.g. “Schedule all required classes every semester.”)

I survey students about their goals and assist them to select a path that leads to completion of degrees or certificates. I assist the Dean and Chairman of the program to plan class schedules in the right sequence and frequency.
1. What is the focus of your program? (e.g. transfer, basic skills, career technical education, lifelong learning, etc.)

The program focuses on career technical education. We also address other areas such as life long learning and transfer.

2. Have there been changes in the field that might impact your course offerings or degrees? Please explain.

Because of strong interest in efficient energy use and environmental concerns, I believe we need to consider offers classes that address resource efficient construction and machinery in gardens, landscapes and farms.

3. Are you planning on changing, updating or revising degree or certificate requirements? Please explain.

I plan to propose to the Dean and chairman a review of our current degree, certificates and classes to determine if we still feel we have the proper offerings and if not, to make modifications in light of the College' Mission

4. If available, have you created a “degree for transfer” in your discipline according to SB 1440? If so, what is it?

N / A

5. Have you prioritized your courses according to department goals? (Please attach blueprint)

Yes. Blueprint attached.

6. Have all your courses been updated in the last 5 years? If not, please list all outdated courses and your plans for revising or deleting them.
Yes, the courses have been updated. I believe that two of the recent updated classes, on plant Identification, selection and propagation need revision because the revised class lost its transferability to the University of Californiasystem. The previous Outlines for these classes were accepted by the UC system. The loss of the transferability is a major loss for the program and detracts from attracting students who want and need a transferable class. I believe we can have the proper blend of transferable and practical non-transferable classes.

7. Do you plan to develop any new courses or degrees? If so, please describe briefly and explain.

I plan to discuss with the Dean and Chair of the Department the possibility of new courses. I am aware that unit allocation is an important matter and that we revised curriculum recently. However, curriculum evolves and needs to be discussed based on current trends in technology and economic conditions. These are two potential new classes that could be developed.

A. Life in gardens, landscapes and Farm: This class is needed to complement the Integrated Pest Management class we currently offer. Students who take IPM classes show a strong desire to know more about the biology of insects and other life forms found on plants. The IPM classes does not address those aspects. The class I propose addresses them from the point of view of identification of the various life forms which occur in gardens, landscapes and farms. I believe we would have a good enrollment in this class.

B. Sustainable Gardening, landscaping and Farming Structures and Machinery

Because current interests in efficient use of energy and sustainability, for example living retaining walls, water capture systems, animal, people or solar powered equipment, sustainable buildings, I believe the class I propose would be welcome in the community. Our program does not have a construction class and or machinery class and skills in those fields are necessary in the gardening, landscaping and farming fields.

8. Are you collaborating (or thinking about collaborating) with other departments to develop joint curriculum or make other programmatic changes? If so, please describe briefly and explain.

I want to explore the possibility to:

A. Collaborate with Machine and metals technology and or Automotive Technology to determine if we can offer a class in construction of structures or vehicles for gardening, landscaping or farming.

B. Collaborate with the Architecture Department to teach Landscaping Design classes.
C. Collaborate with the Biology Department to teach classes to assess the use of vegetation management for climate regulation. This would include the use of grazing and composting.

9. Do you plan to develop any new Distance Ed courses or develop Distance Ed versions of existing courses? If so, please describe briefly and explain.

I want to explore the possibility of having hybrid classes. Students would not have to come to campus for all the classes. I may apply for an R and D grant or EEIf to explore this matter.

10. Do you plan to add or increase your material fees for any of your classes? If so, please list the classes and the proposed new or revised material fees for the respective classes.

No

11. Have you reviewed your pre-requisites and co-requisites in the last 5 years?

Yes.
Student Learning Outcomes

ELND-2011

Five College Learning Outcomes:

1. Written, Oral and Visual Communication: Communicate effectively in writing, orally and/or visually using traditional and/or modern information resources and supporting technology.

2. Scientific and Quantitative Reasoning: Locate, identify, collect, and organize data in order to then analyze, interpret or evaluate it using mathematical skills and/or the scientific method.

3. Critical Thinking: Differentiate between facts, influences, opinions, and assumptions to reach reasoned and supportable conclusions.

4. Problem Solving: Recognize and identify the components of a problem or issue, look at it from multiple perspectives and investigate ways to resolve it.

5. Information Literacy: Formulate strategies to locate, evaluate and apply information from a variety of sources - print and/or electronic.

I. Degrees and Certificates

1. List your degree and certificate student learning outcomes.

   In which courses do students learn each one?

   | AS. Environmental Landscaping: Landscaping, Organic Farming and Gardening | ELND 109S: SLO’s A, B and C  
   |                                                                         | ELND 109F: " "  
   | After completion of this degree, students should be able to:            | ELND 115S: SLO A  
   | A. Recognize general ecological and economical principles reflected in the design, installation and maintenance of Landscapes, gardens and farms | ELND 115F: SLO C  
   | B. Identify major components of the soil which determine the ecological sustainability of landscapes, gardens and farms. | ELND 150: SLO B  
   | C. Compare diverse horticultural practices inherent in ecologically sustainable landscapes, gardens and farms. | ELND 160: SLO B  

   The instructors which teach the classes required for this degree should address the required course SLO’s. These course SLO’s are designed to address the requirements of this Degree.

   In the classes I teach student learn all of them. I can not address this matter for classes I do not teach. This should be done by the instructors who teach those classes.

Certificate of Achievement in ELND : Certificate of Achievement in Environmental Landscaping: Landscape and Garden Design

After completion of this degree, students
should be able to:

A. Recognize general ecological and economical principles reflected in the design, installation and maintenance of Landscapes, gardens and farms

B. Identify major components of the soil which determine the ecological sustainability of landscapes, gardens and farms.

C. Compare diverse horticultural practices inherent in ecologically sustainable landscapes, gardens and farms.

ELND 101: SLO’s A, B, and C  
ELND 109S " "  
ELND 115F: SLO’s A, B and C  
ELND 120A: SLO A, B and C  
ELND 120B : SLO’s A, B and C  
ELND 140: SLO’s A, B and C

Certificate of Achievement in ELND :
Certificate of Achievement in Environmental Landscaping: Landscape, Organic Farm and Garden Production

After completion of this degree students will be able to:

A. Devise a plan to establish a garden, landscape or farm
B. Explain sequence of horticultural and ecological principles that should be followed to establish a garden, landscape or farm
C. Contrast horticultural and ecological practices applied in gardens, landscapes and farms

ELND 109F  
ELND 109S  
ELND 120A : SLO’s A, B and C  
ELND 120B : "  
ELND 150 : "  
ELND 160 : "  
ELND 190: "

2. What are your assessment strategies? (e.g. essays, research papers, presentations, multiple choice tests, etc.)

I assess my students based on multiple choice and essay tests, term papers, class presentations

II. General Education:

1. Does your discipline offer any classes which count for general education requirements?

No

2. Have you assessed any of the GE SLOs in the last year in any of these courses? If so, please
describe the assessment and who it was given to and then summarize the results.

N/A

3. GE Rubrics:
• If you used the shared GE rubrics, what did you learn? (Report your findings.)
• What do you hope to change in the curriculum, pedagogy, course outline, etc. as a result of what you have learned? (Or what have you already changed?)
• Will these changes require new resources or a reallocation of resources? If so, explain using data.
• How have changes (previously made) affected student learning? Use qualitative and quantitative data to support your response.

N/A

III. Course Level Outcomes:

1. Have you assessed any of the stated Student Learning Outcomes in your course outlines over the last year? If so, please describe the assessment and who what courses and sections it was given to in and then summarize the results.

I have assessed all the SLO’s for all the classes I have recently taught in the Landscaping Department. I plan my lectures to address each of the the SLO’s in the course outlines and design tests to assess if the students learned those SLO’s.

Description of the Assessments:

To assess my classes, I give multiple choice tests, essay tests and term papers. I build my questions in the tests in such a way that address each of the SLO’s for my classes. The papers I assigned are designed that to complete them, students address SLO’s for the class.

Summary of Results:

I have found that following SLO’s when I teach my classes, my instruction is well organized and students conclude that the class is well planned. Most of the students learned the SLO’s of the classes I have taught.

2. What improvements have you made or do you plan to make in the future based on the results of your SLO assessment?

Improvements I have made:

I have devised better questions to assess how well students are learning the SLO’s of my classes. For example very specific multiply choice tests, more general essay questions and applied term papers that allow the students to use critical thinking related to the SLO’s of my classes.
## Point of Improvement

### ELND-2011

**Instructions:** after reviewing your data and reports from all other sections of your program review, use this form to briefly summarize all of the information you have provided by closing with your concluding remarks (e.g. an executive one-page summary) for your entire program review.

### I. Program Excellence (Best Practices)

Please address any of the following areas:
- Overall Program structure, contextualized learning/learning communities, reputation of faculty, faculty collaboration, staff, retention and success, how you maintain a supportive environment, how you address issues of diversity, any specific student learning outcomes.

My goal as a faculty member assigned to the Environmental Landscaping Program at College of Marin, is to propose measures to the Dean and Chair of the Program to align the program goals and mission with the College of Marin Mission and Goals in light of the current economic conditions and technical developments in the fields of gardening, landscaping and urban farming. Proof of my intentions is this updated program review. February 1, 2012.

**Overall program structure:** Administratively, the program is run by the Dean and Chairman. The full-time instructor, partially assigned to the program, makes proposals for curriculum development. The program was revitalized in the last two years and we are discontinuing a degree and certificates we determined were outdated. We have created and new AS degree in Environmental Landscaping: Landscaping, Organic farming and Gardening and two certificates of Achievement in Environmental Landscaping: Landscaping and Garden Design and Landscape, Organic Farming, and Garden Production.

The program has made a major commitment to a curriculum that focuses on organic and sustainability principles and water management.

**Reputation of faculty:** I strongly recommend that we establish a pool of instructor who are vetted and approved by a group of qualified instructors. We currently use emergy hire faculty and this is not conducive to a strong program.

Faculty Cooperation: I contact other instructors in the program when I find necessary
to coordinate my teaching with their classes. I also frequently communicate with some of the instructors who I have know professionally for years.

When we reviewed the curriculum in the recent past all faculty met and exchange ideas about the program

**How I maintain a supportive environment:** I encourage group work between my students and I design my classes in such a way that students participate in class discussions to connect the theoretical information delivered with practical applications in the field.

**How I address issues regarding student learning outcomes:** I include student learning outcomes, SLO's, in all my Class Outlines and my syllabi. I make sure that my instruction addresses all the SLO's in my Course Outlines. My SLO's also fit the Five College Learning Outcomes:


I keep making requests to upgrade our facilities for excellence in teaching. We have a farm and greenhouse dedicated to organic farming at IVC, we have purchased new microscopes and continue to upgrade the soils laboratory. Last year I was funded to buy new pH meters, scales and soil augers.

We schedule our classes considering the needs of all the Marin County Community. Although the program is based at the IVC campus, we still offer classes at the Kentfield campus. I recommend that we maintain this practice to serve the various areas of the county.

**II. SLOs**

As a discipline, please look at your student learning outcome assessments at the program or degree/certificate level and consider the following questions:

| Description & Current Goals; Analysis: |
| Strengths and Constraints | Future Goals & Recommended Actions |
| 1. What do you do to help student achieve particular outcomes? |

The Current SLO"s are adequate. Their are relevant to the students' education. What do I do to help students achieve particular outcomes?
I specifically design class assessment to measure how well students learn the SLO’s for the classes I teach. When they do not learn them, I determine why and implement measures to achieve the SLO’s. I have limited control over this. I can manage what I can do but in some cases students are not effective making the necessary changes to achieve their SLO’s.

I recommend that instructors ascertain that assess if students are learning the SLO’s for each class. I propose a district directed initiative to assist instructors to complete this task.

2. How can you improve student performance on this outcome? Give specific strategies.

I clearly explain in class the role of SLO’s in teaching and how I address the SLO’s in class and how the students should study to achieve the SLO’s.

To review the SLO’s of classes I teach and updated if necessary.

3. Pick one or two things that you will do to improve your program over the next 2-3 years. Outline your strategies for improvement. Detail any resources you will need to achieve this improvement.  Note: You will be asked to comment on this plan for improvement in your next review in two to three years. Please save your responses so that you will have comparative evidence and data to submit at that time.

A. To have instructors who are hired through a process by which they are vetted following the regular process by which college of Marin hires instructors.

C. To have a technician to support the laboratories of some of the classes taught. For example, the soils and IPM classes have laboratories that required significant support to process samples, set up equipment, maintain specimens.

C. To have funds to build a new greenhouse at Indian Valley Campus to teach conventional gardening, landscaping and farming.

D. To establish a plot to teach conventional gardening, landscaping and farming.

Goals:

To have a new greenhouse at IVC
To have a technician to support classes in the Department
To establish a plot to teach conventional gardening, landscaping and farming

III. Moving Forward Objectives (Planning)

What (qualitative and/or quantitative) data-driven coordinated planning has your department done to improve enrollment, student learning, access and success over the last two years?
The Department has information from the College and the Community (the Dean, Chairman and faculty have a good knowledge of community needs) that is used to develop curriculum and class offerings.

The Department has emerged from a period of decline and is poised to grow if we adapt our curriculum to current market conditions and the college provides funding. The statistics I provide here give an overview of enrollment in the Department. We have readjusted the class offering to offer those classes that attracted most students in that period. Those classes are: ELND110A and B, 100, 154A and B, 254 A and B, 210 A, B and C. Enrolment in those classes varied between 19 to 29 which are high numbers for our program. For comparison, classes as ELND 202 had five students, ELND158 had 6 students. Based on current economic trends we created an organic farming class. That class was offered for the first time on Spring 2009 and the 29 students enrolled.

IV. Assessment of Previous Program Reviews:

1. What resources have you been granted from your previous program reviews?
2. Please assess how these resources have been used to improve access, learning outcomes and student success in your program?
3. What changes have you implemented based on previous program reviews?
4. What results have you found?

We received funds to purchase dissecting microscopes, tools for the construction laboratory and supplies for irrigation classes.

The microscopes are used to support teaching of ELND210 A, B and C and will be used to support teaching of ELND120A and B in Spring 2009. The construction and irrigation supplies have been used to support the teaching of construction, irrigation and organic gardening and farming classes.

I have made emphasis in including SLO’s in all the class outlines of classes I teach. I have recommended to the Dean and Chair of the program that they encourage other instructors in the program to do the same.

I make sure that my SLO’s are aligned with college of Marin five learning outcomes.

I have developed student learning assessments that reflect the SLO’s for each of the classes I teach. I am recommended to the Dean and Chair of the Program that they recommend to other instructors in the program to do the same.

The majority of the students who took my classes were greatly satisfied with the instruction that they received and the great majority succeeded in my classes.

http://programreview.marin.edu/2011/PSReport.jsp
**VI. Other concluding remarks.**

A. I request to clear responses to my proposals and actions that are proposed to address them. That is the only way for Program Review to be effective.

B. To set aside land at Indian Valley Campus to teach conventional, non-organic gardening, landscaping and farming. The organic farm at IVC can not be used to teach non-organic practices because of organic certification issues. For example, in my soils class I must teach students about non-organic fertilizer and I should be conducting field evaluation of those fertilizers. I need a place to establish evaluation plots with non-organic fertilizers.

B. To have a larger greenhouse, around 20 by 40 feet at Indian Valley Campus to teach conventional, non-organic gardening, landscaping and farming. The organic farm at IVC can not be used to teach non-organic practices because of organic certification issues. For example, in my soils class I must teach students about non-organic fertilizer and I should be conducting field evaluation of those fertilizers. I need a place to have potted plants with under controlled conditions to evaluate non-organic fertilizers.

This greenhouse can be also used to assess non-organic pesticides in the Integrated Pest Management.
Department Chair Comments

ELND-2011

1. Please make any comments on, Student Access and Success, Facilities, Curriculum and SLO sections.

The Environmental Landscaping program needs to continuously explore different ways to offer their classes. Possibilities include nights, weekends, combination of in class and online classes as well as continuing day classes. It is a challenge to calculate when to offer classes with a limited number of available units to teach per semester. Recently, enrollment trends tend to be increasing due to better scheduling and offering of classes. The Environmental Landscaping department needs to continually fine tune their course and time offering to best meet the needs of students.

The Environmental Landscaping department is in the process of revising their degree and certificate offerings. The certificates are aligned with trends in the industry and student needs. The facilities for Environmental Landscape have recently been updated and moved from the Kentfield campus to the Indian Valley campus. The modernization project working collaboratively with the Conservation Corp has developed an Organic Farm, greenhouse and shade structure at the southwest end of the Indian Valley campus. The college is in the process of refitting the old chemistry lab at the Indian Valley campus to be used as a lab facility for the Environmental Landscaping program. The construction class built several structures which include a greenhouse for the storage of exotic plants for the plant identification class. All of the courses in the Environmental Landscaping department are current and up to date. They are continuously evaluating and rewriting courses as necessary to meet the needs of the community and students.

2. Please comment on the Point of Improvement section.

Environmental Landscaping has a good working relationship with the Biology department. They share equipment and teaching aids so the district doesn't have to double up on equipment and teaching aids thus saving money for the district. The Environmental Landscaping program needs to acquire the necessary equipment to test soils. Soil testing is an integral part of the entire Environmental Landscaping program. Since the Environmental Landscaping program is teaching more classes at the Indian Valley Campus, there is a need to invest money to develop a well equipped Environmental Landscaping Lab which can be shared with Biology. They will need compound microscopes and other lab equipment to perform basic biological and plant physiology labs.
3. Other comments