Date: Fri, 27 Oct 1995 08:35:22 -0700 (PDT) From: Josie Reed < reedj@elwha.evergreen.edu>

To: sth@elwha.evergreen.edu

Subject: Core & Math

This may be moot by the time you receive it, but here are some comments I have on Thurs retreat meeting:

- 1. There seemed to be a lot of support for chemistry in Core programs. >From the faculty's point of view it would fill prerequisites; from the students' it would open a number of avenues into the sciences. There seemed to be similar, if lesser, arguments given for physics in Core.
- 2. There seemed no demand from the sciences for calculus in Core. Historically the justification for such programs was that it would allow science oriented students to get going on serious work. It seems to me that the programs in #1 and/or entry level science programs satisfy that need.
- 3. What is not satisfied is a place for *math* students to get started.
- 4. TESC does not do a good job by math students. A reasonable undergraduate math curriculum should include: a decent course in linear algebra; differential equations; probability; and complex analysis at least. We all have other favorites: number theory, numerical analysis, topology,...
- 5. Some of these are likely of interest to physics students as well and could be part of an overlap with Physical systems, as in the model Masao suggested, in years alternating with Math Systems. It would compete/give an alternative to Computability and Cognition.

Josie Reed Lab I TESC Olympia WA 98505 360-866-6000 x 6086

From wongl@elwha.evergreen.eduTue Nov 7 16:40:29 1995

Date: Fri, 27 Oct 1995 10:54:50 -0700 (PDT)
From: Les Wong <wongl@elwha.evergreen.edu>
To: Michael Beug <beugm@elwha.evergreen.edu>

Cc: Janet Ott <ottj@elwha.evergreen.edu>, sth <sth@elwha.evergreen.edu>,

Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu

Subject: Re: curriculum and retreat

i am also thinking along lines of Jan and Mike. Please let me know when these meetings occur, i will attend. this is an excellent way for part time studies to complement both day and night experiences. My concern remains the numbers and establishing more thematic lines in science pgms. I wouldn't want a separate standing orgchem draw students out of m20 nor would i like

science students to piece together their experience. I look forward to the discussion. les. I think resurrecting jan/dharshi's evening science pgm is worthwhile. am I alone?? On Wed, 25 Oct 1995, Michael Beug wrote:

- > Janets thoughts are very close to what I have been thinking about and I indeed hope that the ES folks can get together with some of the ST folks at the retreat. Specifically, I would love to get organic out of M to O and thus free up M to O to have an alternating emphasis from year to
- > year. I am also working to get a sounder basic biology and chemistry
- > exposure for ES students. To this end, I see need for two types of
- > agreements. We need consistent two core programs with one that covers
- > general biology plus math/statistics/computer modeling and one that
- > covers general biology and chemistry (no more skipping ahead to ecology
- > in core without the basics first). We then need a thematic FONS program or
- > IES program that is 2/3 science (chemistry, math and biology) and 1/3 social
- > science (ethics, environmental
- > issues, etc), but many students would be prepared in Core to either
- > take M & M or a more rigorous IES with ecology. We need to have organic
- > available in several ways -
- > as an evening course taught for 3 quarters plus as an 8 q.h. spring group
- > contract (and as an 8 q.h. summer offering). Students would thus need
- > 8 q.h. organic as a prerequisite for M to O.
- >
- > On Tue, 24 Oct 1995, Janet Ott wrote:
- >> This is a sort of expanded message from yesterday's. I have come to the
- >> realization that my health will not allow me to go the retreat (or
- >> rather, it would, but it would set me back two weeks, which I think is
- >> rather stuid I know from experience that bronchitis gets better only
- >> with rest), so I want to get some thoughts out about curriculum since I
- >> won't be there to state them.
- >> In talking about curriculum, I think we need to stop this
- >> arrogant stance about "what ain't broke." I agree that we work really
- >> well together and that we organize well and that our students are
- >> generally pleased, blah, blah, blah, but I think that stance stifles
- >> interesting discussion, which I think could be a real catalyst, if not
- >> for change, then for interesting ideas to percolate. I would like us to
- >> think about a couple of things.
- >> 1) the perenial issue of where to put organic chem. We always put
- >> it in M2O (or have for the past 10 years) and have stopped discussing
- >> other ways of doing it, but in fact I think it overloads the program in
- >> such a way as to preclude or at least inhibit a stong thematic drive. I
- >> really admire this year's team and hope it works because I would like to
- >> do a strong theme when I get back into it (by the way, since we are
- >> planning 97-98 while at the retreat, you can pencil me in for M2O I'm
- >> due and by that time, the physiology equipment will be ready). We always
- >> think about putting Org. into a program, but what if we, as Les is doing

```
>> next year, have a two quarter class that then allows them entrance into
```

- >> all programs that need it. Perhaps we could do the same with calculus,
- >> that other perenial issue.
- >>2) the issue of coordination with env.studies. If we don't do
- >> the above, at least we should coordinate better with es about the stuff
- >> we both need to cover for entry level students. We could devise programs
- >> (not just one, but a couple to be taught in rotation, or to be devised
- >> each year by the team chosen to do the necessary topics) that would allow
- >> entrance into more advanced programs in both areas.
- >>3) advanced programs. Many of us would like to even have the
- >> chance to do an advanced program every once in a blue moon. But we have
- >> so solidified our curriculum that we think we can't. (We always plan from
- >> a stance of "who's going to cover x this year" rather than starting from
- >> interesting ideas that we all have about what we'd LIKE to teach. I'd
- >> like, just once, to do the second rather than the first and see what
- >> happens we could come back to the "coverage issue" but I bet that the
- >> "interesting ideas" would cover a lot of them.) But in fact, I
- >> think we could if we were better at coordinating what we really need, and
- >> letting some things go. We do not NEED to do FONS every year, if we have
- >> other programs that cover similar material (witness this year's low
- >> enrollment). We do not even need to do M2O every year, if we had other
- >> programs that covered biochemistry and some aspect of basic biology
- >> (let's be real it is NOT advanced biology and never has been). Jim and
- >> I have been talking for years about doing a food program covering
- >> biochem, physiology, environmental issues, etc., which would really be
- >> M2O with a real theme (and if your interested, Jim, I see no reason we
- >> couldn't do this 97-98, so let me know!, especially since the org. would
- >> have been covered this next year with the two quarter program). There are
- >> lots of other ideas that would do the same.
- >>4) classes. We have talked around this for years and it's time
- >> to revisit it. Org. and calc. particularly come to mind as the one's
- >> folks are most likely to be talking as "part of a program." I know it
- >> gets taught better when incorporated into a program, but there are
- >> interesting ways to think about this the Washington Center has lots of
- >> information about colleges that do classes interdisciplinarily even when
- >> they are teaching by themselves. This would free up a lot take
- >> pressure off of us so we could think about doing advanced work, make some
- >> of our curriculum planning more flexible, etc.
- >>I wish I could be there to talk about this (but then, I'm not
- >> supposed to be using my voice anyway), but I thought I'd get some of the
- >> ideas out before the retreat and hope that some of you read them and at
- >> least address the issues that I'm bringing up. I wish you all the best
- >> and have a retreat full of interesting conversation! I'll be thinking of
- >> you.

```
>>
>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>> 206-866-6000, x6019
>>
>>
>>
```

From judyc@elwha.evergreen.eduTue Nov 7 16:40:29 1995

Date: Fri, 27 Oct 1995 14:26:42 -0700

From: Judy Cushing <judyc@elwha.evergreen.edu>

To: reedj@elwha.evergreen.edu Cc: sth@elwha.evergreen.edu Subject: Re: Core & Math

re josie's comments on math & core....

linear algebra and probability are two topics that (i think) computing students (dti-level) would also benefit from (having in that program), along with the math they do (discrete math).

-judy

This may be moot by the time you receive it, but here are some comments I have on Thurs retreat meeting:

- 1. There seemed to be a lot of support for chemistry in Core programs. >From the faculty's point of view it would fill prerequisites; from the students' it would open a number of avenues into the sciences. There seemed to be similar, if lesser, arguments given for physics in Core.
- 2. There seemed no demand from the sciences for calculus in Core. Historically the justification for such programs was that it would allow science oriented students to get going on serious work. It seems to me that the programs in #1 and/or entry level science programs satisfy that need.
- 3. What is not satisfied is a place for *math* students to get started.
- 4. TESC does not do a good job by math students. A reasonable undergraduate math curriculum should include: a decent course in linear algebra; differential equations; probability; and complex analysis at least. We all have other favorites: number theory, numerical analysis, topology,...
- 5. Some of these are likely of interest to physics students as well and

could be part of an overlap with Physical systems, as in the model Masao suggested, in years alternating with Math Systems. It would compete/give an alternative to Computability and Cognition.

Josie Reed

From rscole@elwha.evergreen.eduTue Nov 7 16:40:29 1995

Date: Fri, 27 Oct 1995 14:54:02 -0700 (PDT) From: Rob Cole <rscole@elwha.evergreen.edu> To: Josie Reed <reedj@elwha.evergreen.edu>

Cc: sth@elwha.evergreen.edu Subject: Re: Core & Math

The last time I taught Physical Systems, I offered ODE's (4 credits) and lin alg (4 credits). The books (and the approach!) used were the same as in many math departments elsewhere: Boyce & DiPrima for ODE's and Anton for Lin alg. I think those subjects are essential for any student going on the the physical sciences (let alone other fields), and I'd be delighted to see them offered every year (I'm willing to share in the teaching of that!).

My work with other institutions in the calculus reform project has reinforced my uneasiness that the calculus, multi-variable, ODE, lin alg, probability sequence at TESC is haphazard at best. The content of these courses (at a minimum!) ought to be offered every year in some recognizable fashion. This ignores the more properly upper division topics in modern algebra, complex variable theory, topology, etc. etc. that we'd all rather be teaching, I'm sure.

I think we've all been a bit casual about how (or whether!) these topics get dished up. I'm certainly willing to participate in discussion about how to better coordinate the offering of these topics, and I'm quite willing to teach these topics in some mutually agreed upon rotating schedule.

To provoke even more discussion (and perhaps outrage), I'll suggest we start using ISETL in modern algebra and in discrete math!

Rob

From dimitrof@elwha.evergreen.eduTue Nov 7 16:40:30 1995

Date: Fri, 27 Oct 1995 15:25:13 -0700 (PDT)

From: George Dimitroff <dimitrof@elwha.evergreen.edu>

To: Rob Cole <rscole@elwha.evergreen.edu>

Cc: Josie Reed <reedj@elwha.evergreen.edu>, sth@elwha.evergreen.edu

Subject: Re: Core & Math

ISETL is a great! language for abstract algebra and linear algebra (text books have already been written for these tasks), and probably, it could be used successfully for linear algebra. It is simple and easy to learn and to use. HOWEVER, it is frustrating to use, because it is very sensitive to typing errors. This is the only reservation that I have had in using it more than I have in the past. I have begun learning ML during the past year, and this may be a very promising language to use instead of ISETL.

I would like see these courses offered on a regular basis, but I much prefer them to be woven into the fabric of programs where the content is needed, rather than to have them taught external and separate from decent applications.

George

On Fri, 27 Oct 1995, Rob Cole wrote:

```
> The last time I taught Physical Systems, I offered ODE's (4 credits) and
> lin alg (4 credits). The books (and the approach!) used were the same as
> in many math departments elsewhere: Boyce & DiPrima for ODE's and Anton
> for Lin alg. I think those subjects are essential for any student going
> on the physical sciences (let alone other fields), and I'd be
> delighted to see them offered every year (I'm willing to share in the
> teaching of that!).
> My work with other institutions in the calculus reform project has
> reinforced my uneasiness that the calculus, multi-variable, ODE, lin alg,
> probability sequence at TESC is haphazard at best. The content of these
> courses (at a minimum!) ought to be offered every year in some
> recognizable fashion. This ignores the more properly upper division
> topics in modern algebra, complex variable theory, topology, etc. etc.
> that we'd all rather be teaching, I'm sure.
>
> I think we've all been a bit casual about how (or whether!) these topics
> get dished up. I'm certainly willing to participate in discussion about
> how to better coordinate the offering of these topics, and I'm quite
> willing to teach these topics in some mutually agreed upon rotating
> schedule.
> To provoke even more discussion (and perhaps outrage), I'll suggest we start
> using ISETL in modern algebra and in discrete math!
>
> Rob
```

From reedj@elwha.evergreen.eduTue Nov 7 16:40:30 1995

Date: Sun, 29 Oct 1995 07:30:04 -0800 (PST) From: Josie Reed <reedj@elwha.evergreen.edu>

To: sth@elwha.evergreen.edu

Subject: math

I'm sure a lot of good teaching has gone on, but that's not my issue. My concern is that there be an identifiable, predictable, mathematical curriculum for students whose primary interest is mathematics rather than one of the sciences. It sounds as though a daisy petaled Venn diagram might work better than the two overlapping circles one. One petal would be a thematically generated math program, and others could include science and computer science offerings.

Josie Reed Lab I TESC Olympia WA 98505 360-866-6000 x 6086

From ottj@elwha.evergreen.eduTue Nov 7 16:40:31 1995

Date: Mon, 30 Oct 1995 13:27:53 -0800 (PST) From: Janet Ott <ottj@elwha.evergreen.edu>

To: George Dimitroff <dimitrof@elwha.evergreen.edu>

Cc: sth <sth@elwha.evergreen.edu> Subject: Re: Reply to your 10/24

George - I appreciate your comments. I was really sorry to miss the retreat, but my health, as I have come to realize, is more important. I agree with you about service courses, and if there is a way to get more math into all our programs, great. But I'm struggling with the idea that we (I) am always playing catch-up with my students about several different math or biology topoics. So I'm just trying to figure out how to "do it." I would rather have any topic incorporated into a program. I just don't want any program to "get stuck" with a set of "service courses" any more than a class is, and I often feel that way about both FONS and M2O, that instead of us having a theme that we're exploring, we're doing coverage, from either the faculty or the student point of view. So I would like to open up a discussion about what we can do about this issue, and how this issue interacts with so many others.

Thanks for the reply. Jan

Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505 206-866-6000, x6019

On Sun, 29 Oct 1995, George Dimitroff wrote:

```
> Dear Jan,
> We scarcely scratched the surface in getting through all of the agenda
> items that had been planned for us, let alone others that people thought
> were important, but I heard a lot of support for making M2O a theme based
> program, that could have different themes in different years, and that
> would remove the organic chemistry. I applaud service courses when it
> comes to other people's disciplines, but I abhor the idea of having to
> teach calculus to a whole mess of people, with different interests in
> terms of how they are going to apply calculus. It was hard enough to
> teach the reform calculus to (largely) biology students in FONS, in 1992,
> and they were ready for it. I believe that if more of the examples had
> been taken from biology and environmental science, it might have made the
> job easier and more interesting for the students. One reason that I came
> here was to get away from service courses that I hear other people, from
> disciplines other than mine, espousing for me to teach. I say NO! and I
> will hold out as long as I can! If we compromise in creating more and
> more courses, the whole college will revert back to Southwest Washington
> State College. This happened to a great extent at Fairhaven, at Western,
> which began at about the same time as Evergreen and whatever innovation
> was in that place was gutted and compromised to death in short order. We
> should try to think of a better way to make room for more advanced work.
> The retreat was very refreshing, and it was very nice to have it in the
> fall, when we could meet new folks and renew contact with old friends.
> I'm sorry that you missed it. I hope you will be in good shape for the
> next one.
>
> Best wishes,
         George
>
>
>
>>From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
> From: Janet Ott <ottj@elwha.evergreen.edu>
> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
    Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
> Subject: curriculum and retreat
> This is a sort of expanded message from yesterday's. I have come to the
> realization that my health will not allow me to go the retreat (or
```

> rather, it would, but it would set me back two weeks, which I think is > rather stuid - I know from experience that bronchitis gets better only > with rest), so I want to get some thoughts out about curriculum since I > won't be there to state them.

> In talking about curriculum, I think we need to stop this
> arrogant stance about "what ain't broke." I agree that we work really
> well together and that we organize well and that our students are
> generally pleased, blah, blah, blah, but I think that stance stifles
> interesting discussion, which I think could be a real catalyst, if not
> for change, then for interesting ideas to percolate. I would like us to
> think about a couple of things.

> 1) the perenial issue of where to put organic chem. We always put > it in M2O (or have for the past 10 years) and have stopped discussing > other ways of doing it, but in fact I think it overloads the program in > such a way as to preclude or at least inhibit a stong thematic drive. I > really admire this year's team and hope it works because I would like to > do a strong theme when I get back into it (by the way, since we are > planning 97-98 while at the retreat, you can pencil me in for M2O - I'm > due and by that time, the physiology equipment will be ready). We always > think about putting Org. into a program, but what if we, as Les is doing > next year, have a two quarter class that then allows them entrance into > all programs that need it. Perhaps we could do the same with calculus, > that other perenial issue.

> 2) the issue of coordination with env.studies. If we don't do > the above, at least we should coordinate better with es about the stuff > we both need to cover for entry level students. We could devise programs > (not just one, but a couple to be taught in rotation, or to be devised > each year by the team chosen to do the necessary topics) that would allow > entrance into more advanced programs in both areas.

3) advanced programs. Many of us would like to even have the > chance to do an advanced program every once in a blue moon. But we have > so solidified our curriculum that we think we can't. (We always plan from > a stance of "who's going to cover x this year" rather than starting from > interesting ideas that we all have about what we'd LIKE to teach. I'd > like, just once, to do the second rather than the first and see what > happens - we could come back to the "coverage issue" but I bet that the > "interesting ideas" would cover a lot of them.) But in fact, I > think we could if we were better at coordinating what we really need, and > letting some things go. We do not NEED to do FONS every year, if we have > other programs that cover similar material (witness this year's low > enrollment). We do not even need to do M2O every year, if we had other > programs that covered biochemistry and some aspect of basic biology > (let's be real - it is NOT advanced biology and never has been). Jim and > I have been talking for years about doing a food program - covering > biochem, physiology, environmental issues, etc., - which would really be > M2O with a real theme (and if your interested, Jim, I see no reason we

```
> couldn't do this 97-98, so let me know!, especially since the org. would
> have been covered this next year with the two quarter program). There are
> lots of other ideas that would do the same.
        4) classes. We have talked around this for years and it's time
> to revisit it. Org. and calc. particularly come to mind as the one's
> folks are most likely to be talking as "part of a program." I know it
> gets taught better when incorporated into a program, but there are
> interesting ways to think about this - the Washington Center has lots of
> information about colleges that do classes interdisciplinarily even when
> they are teaching by themselves. This would free up a lot - take
> pressure off of us so we could think about doing advanced work, make some
> of our curriculum planning more flexible, etc.
       I wish I could be there to talk about this (but then, I'm not
> supposed to be using my voice anyway), but I thought I'd get some of the
> ideas out before the retreat and hope that some of you read them and at
> least address the issues that I'm bringing up. I wish you all the best
> and have a retreat full of interesting conversation! I'll be thinking of
> you.
>
> J
> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
> 206-866-6000, x6019
>
>
>
From wongl@elwha.evergreen.eduTue Nov 7 16:40:32 1995
Date: Mon, 30 Oct 1995 15:27:16 -0800 (PST)
From: Les Wong < wongl@elwha.evergreen.edu>
To: Janet Ott <ottj@elwha.evergreen.edu>
Cc: George Dimitroff <dimitrof@elwha.evergreen.edu>,
  sth <sth@elwha.evergreen.edu>
Subject: Re: Reply to your 10/24
```

This might be a crazy thought but let's assume that evening and weekend/part time studies doesn't provide that 4 or 8 credit module. What about a smallprogram of 12 credits called, "tools of science". And in that program will be chem, math and biology whose intent is to provide that coverage AND without a theme. It may seem dull and heretical but it will also provide some momentum so that when scientists teach M20 or D2I the variability in student background will me less than what it is now. Students will always prefer themebased work but find themselves really unprepared to really benefit, when they do experience themes when they have the skills the benefits are even more recognizable and appreciated. I don't think science is ever dull but I know it can be frustrating if the basic tools are missing and I have to do a lot of catch up. George

Freeman and Fred Dube are doing a parallel experience in psychology called "Foundations of Psychology", both report student satisfaction in getting "the basics" and/or updating what they learned at the comm.college. just a thought...les

On Mon, 30 Oct 1995, Janet Ott wrote:

```
> George - I appreciate your comments. I was really sorry to miss the
> retreat, but my health, as I have come to realize, is more important. I
> agree with you about service courses, and if there is a way to get more
> math into all our programs, great. But I'm struggling with the idea that
> we (I) am always playing catch-up with my students about several
> different math or biology topoics. So I'm just trying to figure out how
> to "do it." I would rather have any topic incorporated into a program.
> I just don't want any program to "get stuck" with a set of "service
> courses" any more than a class is, and I often feel that way about both
> FONS and M2O, that instead of us having a theme that we're exploring,
> we're doing coverage, from either the faculty or the student point of
> view. So I would like to open up a discussion about what we can do about
> this issue, and how this issue interacts with so many others.
       Thanks for the reply. Jan
>
>
> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
> 206-866-6000, x6019
>
>
> On Sun, 29 Oct 1995, George Dimitroff wrote:
>> Dear Jan,
>> We scarcely scratched the surface in getting through all of the agenda
>> items that had been planned for us, let alone others that people thought
>> were important, but I heard a lot of support for making M2O a theme based
>> program, that could have different themes in different years, and that
>> would remove the organic chemistry. I applaud service courses when it
>> comes to other people's disciplines, but I abhor the idea of having to
>> teach calculus to a whole mess of people, with different interests in
>> terms of how they are going to apply calculus. It was hard enough to
>> teach the reform calculus to (largely) biology students in FONS, in 1992,
>> and they were ready for it. I believe that if more of the examples had
>> been taken from biology and environmental science, it might have made the
>> job easier and more interesting for the students. One reason that I came
>> here was to get away from service courses that I hear other people, from
>> disciplines other than mine, espousing for me to teach. I say NO! and I
>> will hold out as long as I can! If we compromise in creating more and
>> more courses, the whole college will revert back to Southwest Washington
```

```
>> State College. This happened to a great extent at Fairhaven, at Western,
>> which began at about the same time as Evergreen and whatever innovation
>> was in that place was gutted and compromised to death in short order. We
>> should try to think of a better way to make room for more advanced work.
>>
>> The retreat was very refreshing, and it was very nice to have it in the
>> fall, when we could meet new folks and renew contact with old friends.
>> I'm sorry that you missed it. I hope you will be in good shape for the
>> next one.
>>
>> Best wishes,
           George
>>
>>
>>
>>
>>>From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>> From: Janet Ott <ottj@elwha.evergreen.edu>
>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
      Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>> Subject: curriculum and retreat
>>
>> This is a sort of expanded message from yesterday's. I have come to the
>> realization that my health will not allow me to go the retreat (or
>> rather, it would, but it would set me back two weeks, which I think is
>> rather stuid - I know from experience that bronchitis gets better only
>> with rest), so I want to get some thoughts out about curriculum since I
>> won't be there to state them.
>>In talking about curriculum, I think we need to stop this
>> arrogant stance about "what ain't broke." I agree that we work really
>> well together and that we organize well and that our students are
>> generally pleased, blah, blah, blah, but I think that stance stifles
>> interesting discussion, which I think could be a real catalyst, if not
>> for change, then for interesting ideas to percolate. I would like us to
>> think about a couple of things.
>>1) the perenial issue of where to put organic chem. We always put
>> it in M2O (or have for the past 10 years) and have stopped discussing
>> other ways of doing it, but in fact I think it overloads the program in
>> such a way as to preclude or at least inhibit a stong thematic drive. I
>> really admire this year's team and hope it works because I would like to
>> do a strong theme when I get back into it (by the way, since we are
>> planning 97-98 while at the retreat, you can pencil me in for M2O - I'm
>> due and by that time, the physiology equipment will be ready). We always
>> think about putting Org. into a program, but what if we, as Les is doing
>> next year, have a two quarter class that then allows them entrance into
>> all programs that need it. Perhaps we could do the same with calculus,
```

```
>> that other perenial issue.
>>2) the issue of coordination with env.studies. If we don't do
>> the above, at least we should coordinate better with es about the stuff
>> we both need to cover for entry level students. We could devise programs
>> (not just one, but a couple to be taught in rotation, or to be devised
>> each year by the team chosen to do the necessary topics) that would allow
>> entrance into more advanced programs in both areas.
>>3) advanced programs. Many of us would like to even have the
>> chance to do an advanced program every once in a blue moon. But we have
>> so solidified our curriculum that we think we can't. (We always plan from
>> a stance of "who's going to cover x this year" rather than starting from
>> interesting ideas that we all have about what we'd LIKE to teach. I'd
>> like, just once, to do the second rather than the first and see what
>> happens - we could come back to the "coverage issue" but I bet that the
>> "interesting ideas" would cover a lot of them.) But in fact, I
>> think we could if we were better at coordinating what we really need, and
>> letting some things go. We do not NEED to do FONS every year, if we have
>> other programs that cover similar material (witness this year's low
>> enrollment). We do not even need to do M2O every year, if we had other
>> programs that covered biochemistry and some aspect of basic biology
>> (let's be real - it is NOT advanced biology and never has been). Jim and
>> I have been talking for years about doing a food program - covering
>> biochem, physiology, environmental issues, etc., - which would really be
>> M2O with a real theme (and if your interested, Jim, I see no reason we
>> couldn't do this 97-98, so let me know!, especially since the org. would
>> have been covered this next year with the two quarter program). There are
>> lots of other ideas that would do the same.
>>4) classes. We have talked around this for years and it's time
>> to revisit it. Org. and calc. particularly come to mind as the one's
>> folks are most likely to be talking as "part of a program." I know it
>> gets taught better when incorporated into a program, but there are
>> interesting ways to think about this - the Washington Center has lots of
>> information about colleges that do classes interdisciplinarily even when
>> they are teaching by themselves. This would free up a lot - take
>> pressure off of us so we could think about doing advanced work, make some
>> of our curriculum planning more flexible, etc.
>>I wish I could be there to talk about this (but then, I'm not
>> supposed to be using my voice anyway), but I thought I'd get some of the
>> ideas out before the retreat and hope that some of you read them and at
>> least address the issues that I'm bringing up. I wish you all the best
>> and have a retreat full of interesting conversation! I'll be thinking of
>> you.
>>
>>J
```

>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505

```
>> 206-866-6000, x6019
>>
>>
>>
```

From dimitrof@elwha.evergreen.eduTue Nov 7 16:40:33 1995

Date: Mon, 30 Oct 1995 17:12:25 -0800 (PST)

From: George Dimitroff < dimitrof@elwha.evergreen.edu>

To: Les Wong < wongl@elwha.evergreen.edu>

Cc: Janet Ott <ottj@elwha.evergreen.edu>, sth <sth@elwha.evergreen.edu>

Subject: Re: Reply to your 10/24

Les,

Foundations of Natural Science (FONS) was suppose to do that job! for the sciences, but I believe that I heard faculty in ST (formerly (?) STH) at the retreat, talking of doing away with FONS. A FONS-type program is about as far as I am willing to go. I have taught statistics, pre-calc, linear algebra, and calculus in courses at TESC, and I probably will go on doing it, but I will really start kicking and screaming if the college decides to teach mathematics mainly as courses.

George

On Mon, 30 Oct 1995, Les Wong wrote:

```
> This might be a crazy thought but let's assume that evening and
> weekend/part time studies doesn't provide that 4 or 8 credit module.
> What about a smallprogram of 12 credits called, "tools of science". And
> in that program will be chem, math and biology whose intent is to provide
> that coverage AND without a theme. It may seem dull and heretical but it
> will also provide some momentum so that when scientists teach M20 or D2I
> the variability in student background will me less than what it is now.
> Students will always prefer themebased work but find themselves really
> unprepared to really benefit. when they do experience themes when they
> have the skills the benefits are even more recognizable and appreciated.
> I don't think science is ever dull but I know it can be frustrating if
> the basic tools are missing and I have to do a lot of catch up. George
> Freeman and Fred Dube are doing a parallel experience in psychology
> called "Foundations of Psychology", both report student satisfaction in
> getting "the basics" and/or updating what they learned at the
> comm.college. just a thought...les
> On Mon, 30 Oct 1995, Janet Ott wrote:
```

```
>> George - I appreciate your comments. I was really sorry to miss the
>> retreat, but my health, as I have come to realize, is more important. I
>> agree with you about service courses, and if there is a way to get more
>> math into all our programs, great. But I'm struggling with the idea that
>> we (I) am always playing catch-up with my students about several
>> different math or biology topoics. So I'm just trying to figure out how
>> to "do it." I would rather have any topic incorporated into a program.
>> I just don't want any program to "get stuck" with a set of "service
>> courses" any more than a class is, and I often feel that way about both
>> FONS and M2O, that instead of us having a theme that we're exploring,
>> we're doing coverage, from either the faculty or the student point of
>> view. So I would like to open up a discussion about what we can do about
>> this issue, and how this issue interacts with so many others.
>>Thanks for the reply. Jan
>>
>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>> 206-866-6000, x6019
>>
>>
>> On Sun, 29 Oct 1995, George Dimitroff wrote:
>>
>>> Dear Jan,
>>>
>>> We scarcely scratched the surface in getting through all of the agenda
>>> items that had been planned for us, let alone others that people thought
>>> were important, but I heard a lot of support for making M2O a theme based
>>> program, that could have different themes in different years, and that
>>> would remove the organic chemistry. I applaud service courses when it
>>> comes to other people's disciplines, but I abhor the idea of having to
>>> teach calculus to a whole mess of people, with different interests in
>>> terms of how they are going to apply calculus. It was hard enough to
>>> teach the reform calculus to (largely) biology students in FONS, in 1992,
>>> and they were ready for it. I believe that if more of the examples had
>>> been taken from biology and environmental science, it might have made the
>>> job easier and more interesting for the students. One reason that I came
>>> here was to get away from service courses that I hear other people, from
>>> disciplines other than mine, espousing for me to teach. I say NO! and I
>>> will hold out as long as I can! If we compromise in creating more and
>>> more courses, the whole college will revert back to Southwest Washington
>>> State College. This happened to a great extent at Fairhaven, at Western,
>>> which began at about the same time as Evergreen and whatever innovation
>>> was in that place was gutted and compromised to death in short order. We
>>> should try to think of a better way to make room for more advanced work.
>>>
>>> The retreat was very refreshing, and it was very nice to have it in the
>>> fall, when we could meet new folks and renew contact with old friends.
```

```
>>> I'm sorry that you missed it. I hope you will be in good shape for the
>>> next one.
>>>
>>> Best wishes,
             George
>>>
>>>
>>>
>>>
>>> From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
>>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>>> From: Janet Ott <ottj@elwha.evergreen.edu>
>>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
        Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>>> Subject: curriculum and retreat
>>>
>>> This is a sort of expanded message from yesterday's. I have come to the
>>> realization that my health will not allow me to go the retreat (or
>>> rather, it would, but it would set me back two weeks, which I think is
>>> rather stuid - I know from experience that bronchitis gets better only
>>> with rest), so I want to get some thoughts out about curriculum since I
>>> won't be there to state them.
>>> In talking about curriculum, I think we need to stop this
>>> arrogant stance about "what ain't broke." I agree that we work really
>>> well together and that we organize well and that our students are
>>> generally pleased, blah, blah, but I think that stance stifles
>>> interesting discussion, which I think could be a real catalyst, if not
>>> for change, then for interesting ideas to percolate. I would like us to
>>> think about a couple of things.
>>> 1) the perenial issue of where to put organic chem. We always put
>>> it in M2O (or have for the past 10 years) and have stopped discussing
>>> other ways of doing it, but in fact I think it overloads the program in
>>> such a way as to preclude or at least inhibit a stong thematic drive. I
>>> really admire this year's team and hope it works because I would like to
>>> do a strong theme when I get back into it (by the way, since we are
>>> planning 97-98 while at the retreat, you can pencil me in for M2O - I'm
>>> due and by that time, the physiology equipment will be ready). We always
>>> think about putting Org. into a program, but what if we, as Les is doing
>>> next year, have a two quarter class that then allows them entrance into
>>> all programs that need it. Perhaps we could do the same with calculus,
>>> that other perenial issue.
>>> 2) the issue of coordination with env.studies. If we don't do
>>> the above, at least we should coordinate better with es about the stuff
>>> we both need to cover for entry level students. We could devise programs
>>> (not just one, but a couple to be taught in rotation, or to be devised
>>> each year by the team chosen to do the necessary topics) that would allow
>>> entrance into more advanced programs in both areas.
```

```
>>> 3) advanced programs. Many of us would like to even have the
>>> chance to do an advanced program every once in a blue moon. But we have
>>> so solidified our curriculum that we think we can't. (We always plan from
>>> a stance of "who's going to cover x this year" rather than starting from
>>> interesting ideas that we all have about what we'd LIKE to teach. I'd
>>> like, just once, to do the second rather than the first and see what
>>> happens - we could come back to the "coverage issue" but I bet that the
>>> "interesting ideas" would cover a lot of them.) But in fact, I
>>> think we could if we were better at coordinating what we really need, and
>>> letting some things go. We do not NEED to do FONS every year, if we have
>>> other programs that cover similar material (witness this year's low
>>> enrollment). We do not even need to do M2O every year, if we had other
>>> programs that covered biochemistry and some aspect of basic biology
>>> (let's be real - it is NOT advanced biology and never has been). Jim and
>>> I have been talking for years about doing a food program - covering
>>> biochem, physiology, environmental issues, etc., - which would really be
>>> M2O with a real theme (and if your interested, Jim, I see no reason we
>>> couldn't do this 97-98, so let me know!, especially since the org. would
>>> have been covered this next year with the two quarter program). There are
>>> lots of other ideas that would do the same.
>>> 4) classes. We have talked around this for years and it's time
>>> to revisit it. Org. and calc. particularly come to mind as the one's
>>> folks are most likely to be talking as "part of a program." I know it
>>> gets taught better when incorporated into a program, but there are
>>> interesting ways to think about this - the Washington Center has lots of
>>> information about colleges that do classes interdisciplinarily even when
>>> they are teaching by themselves. This would free up a lot - take
>>> pressure off of us so we could think about doing advanced work, make some
>>> of our curriculum planning more flexible, etc.
>>> I wish I could be there to talk about this (but then, I'm not
>>> supposed to be using my voice anyway), but I thought I'd get some of the
>>> ideas out before the retreat and hope that some of you read them and at
>>> least address the issues that I'm bringing up. I wish you all the best
>>> and have a retreat full of interesting conversation! I'll be thinking of
>>> you.
>>>
>>> J
>>>
>>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>>> 206-866-6000, x6019
>>>
>>>
>>>
>>
```

From wongl@elwha.evergreen.eduTue Nov 7 16:40:35 1995

Date: Mon, 30 Oct 1995 21:07:47 -0800 (PST) From: Les Wong < wongl@elwha.evergreen.edu>

To: George Dimitroff <dimitrof@elwha.evergreen.edu>

Cc: Janet Ott <ottj@elwha.evergreen.edu>, sth <sth@elwha.evergreen.edu>

Subject: Re: Reply to your 10/24

good point george, then if FONS is abandoned, how does a student prepare for m20, d2i, math syst., nrg syst., or as Josie is asking, how do we prepare mathematicians? I was stunned at the number of retreat conversations addressing the wide variability of preparedness for technical areas, that is, faculty frustrated at having to suspend or alter their plans to address the coverage issue before they could approach the intended content; and this was a room full of social scientists talking about quantitative skills! thanks for the discussion, i hope it continues. les

On Mon, 30 Oct 1995, George Dimitroff wrote:

```
> Les.
>
> Foundations of Natural Science (FONS) was suppose to do that job! for the
> sciences, but I believe that I heard faculty in ST (formerly (?) STH) at
> the retreat, talking of doing away with FONS. A FONS-type program is
> about as far as I am willing to go. I have taught statistics, pre-calc,
> linear algebra, and calculus in courses at TESC, and I probably will go
> on doing it, but I will really start kicking and screaming if the college
> decides to teach mathematics mainly as courses.
> George
>
> On Mon, 30 Oct 1995, Les Wong wrote:
>> This might be a crazy thought but let's assume that evening and
>> weekend/part time studies doesn't provide that 4 or 8 credit module.
>> What about a smallprogram of 12 credits called, "tools of science". And
>> in that program will be chem, math and biology whose intent is to provide
>> that coverage AND without a theme. It may seem dull and heretical but it
>> will also provide some momentum so that when scientists teach M20 or D2I
>> the variability in student background will me less than what it is now.
>> Students will always prefer themebased work but find themselves really
>> unprepared to really benefit. when they do experience themes when they
>> have the skills the benefits are even more recognizable and appreciated.
>> I don't think science is ever dull but I know it can be frustrating if
>> the basic tools are missing and I have to do a lot of catch up. George
>> Freeman and Fred Dube are doing a parallel experience in psychology
```

```
>> called "Foundations of Psychology", both report student satisfaction in
>> getting "the basics" and/or updating what they learned at the
>> comm.college. just a thought...les
>>
>> On Mon, 30 Oct 1995, Janet Ott wrote:
>>
>>> George - I appreciate your comments. I was really sorry to miss the
>>> retreat, but my health, as I have come to realize, is more important. I
>>> agree with you about service courses, and if there is a way to get more
>>> math into all our programs, great. But I'm struggling with the idea that
>>> we (I) am always playing catch-up with my students about several
>>> different math or biology topoics. So I'm just trying to figure out how
>>> to "do it." I would rather have any topic incorporated into a program.
>>> I just don't want any program to "get stuck" with a set of "service
>>> courses" any more than a class is, and I often feel that way about both
>>> FONS and M2O, that instead of us having a theme that we're exploring,
>>> we're doing coverage, from either the faculty or the student point of
>>> view. So I would like to open up a discussion about what we can do about
>>> this issue, and how this issue interacts with so many others.
>>> Thanks for the reply. Jan
>>>
>>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>>> 206-866-6000, x6019
>>>
>>>
>>> On Sun, 29 Oct 1995, George Dimitroff wrote:
>>>
>>>> Dear Jan,
>>>>
>>>> We scarcely scratched the surface in getting through all of the agenda
>>>> items that had been planned for us, let alone others that people thought
>>> were important, but I heard a lot of support for making M2O a theme based
>>> program, that could have different themes in different years, and that
>>>> would remove the organic chemistry. I applaud service courses when it
>>>> comes to other people's disciplines, but I abhor the idea of having to
>>>> teach calculus to a whole mess of people, with different interests in
>>>> terms of how they are going to apply calculus. It was hard enough to
>>>> teach the reform calculus to (largely) biology students in FONS, in 1992,
>>>> and they were ready for it. I believe that if more of the examples had
>>>> been taken from biology and environmental science, it might have made the
>>>> job easier and more interesting for the students. One reason that I came
>>>> here was to get away from service courses that I hear other people, from
>>>> disciplines other than mine, espousing for me to teach. I say NO! and I
>>>> will hold out as long as I can! If we compromise in creating more and
>>>> more courses, the whole college will revert back to Southwest Washington
>>>> State College. This happened to a great extent at Fairhaven, at Western,
```

```
>>>> which began at about the same time as Evergreen and whatever innovation
>>>> was in that place was gutted and compromised to death in short order. We
>>> should try to think of a better way to make room for more advanced work.
>>>> The retreat was very refreshing, and it was very nice to have it in the
>>>> fall, when we could meet new folks and renew contact with old friends.
>>>> I'm sorry that you missed it. I hope you will be in good shape for the
>>> next one.
>>>>
>>>> Best wishes.
               George
>>>>
>>>>
>>>>
>>>>
>>>> From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
>>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>>> From: Janet Ott <ottj@elwha.evergreen.edu>
>>>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
         Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>>>> Subject: curriculum and retreat
>>>>
>>>> This is a sort of expanded message from yesterday's. I have come to the
>>>> realization that my health will not allow me to go the retreat (or
>>>> rather, it would, but it would set me back two weeks, which I think is
>>>> rather stuid - I know from experience that bronchitis gets better only
>>>> with rest), so I want to get some thoughts out about curriculum since I
>>>> won't be there to state them.
              In talking about curriculum, I think we need to stop this
>>>> arrogant stance about "what ain't broke." I agree that we work really
>>>> well together and that we organize well and that our students are
>>>> generally pleased, blah, blah, but I think that stance stifles
>>>> interesting discussion, which I think could be a real catalyst, if not
>>>> for change, then for interesting ideas to percolate. I would like us to
>>>> think about a couple of things.
>>>>
               1) the perenial issue of where to put organic chem. We always put
>>>> it in M2O (or have for the past 10 years) and have stopped discussing
>>>> other ways of doing it, but in fact I think it overloads the program in
>>>> such a way as to preclude or at least inhibit a stong thematic drive. I
>>>> really admire this year's team and hope it works because I would like to
>>>> do a strong theme when I get back into it (by the way, since we are
>>>> planning 97-98 while at the retreat, you can pencil me in for M2O - I'm
>>>> due and by that time, the physiology equipment will be ready). We always
>>>> think about putting Org. into a program, but what if we, as Les is doing
>>>> next year, have a two quarter class that then allows them entrance into
>>>> all programs that need it. Perhaps we could do the same with calculus,
>>>> that other perenial issue.
```

```
2) the issue of coordination with env.studies. If we don't do
>>>>
>>>> the above, at least we should coordinate better with es about the stuff
>>>> we both need to cover for entry level students. We could devise programs
>>>> (not just one, but a couple to be taught in rotation, or to be devised
>>> each year by the team chosen to do the necessary topics) that would allow
>>> entrance into more advanced programs in both areas.
              3) advanced programs. Many of us would like to even have the
>>>> chance to do an advanced program every once in a blue moon. But we have
>>>> so solidified our curriculum that we think we can't. (We always plan from
>>>> a stance of "who's going to cover x this year" rather than starting from
>>>> interesting ideas that we all have about what we'd LIKE to teach. I'd
>>>> like, just once, to do the second rather than the first and see what
>>>> happens - we could come back to the "coverage issue" but I bet that the
>>>> "interesting ideas" would cover a lot of them.) But in fact, I
>>>> think we could if we were better at coordinating what we really need, and
>>>> letting some things go. We do not NEED to do FONS every year, if we have
>>>> other programs that cover similar material (witness this year's low
>>>> enrollment). We do not even need to do M2O every year, if we had other
>>>> programs that covered biochemistry and some aspect of basic biology
>>>> (let's be real - it is NOT advanced biology and never has been). Jim and
>>>> I have been talking for years about doing a food program - covering
>>> biochem, physiology, environmental issues, etc., - which would really be
>>>> M2O with a real theme (and if your interested, Jim, I see no reason we
>>> couldn't do this 97-98, so let me know!, especially since the org. would
>>>> have been covered this next year with the two quarter program). There are
>>> lots of other ideas that would do the same.
              4) classes. We have talked around this for years and it's time
>>>> to revisit it. Org. and calc. particularly come to mind as the one's
>>>> folks are most likely to be talking as "part of a program." I know it
>>>> gets taught better when incorporated into a program, but there are
>>>> interesting ways to think about this - the Washington Center has lots of
>>>> information about colleges that do classes interdisciplinarily even when
>>>> they are teaching by themselves. This would free up a lot - take
>>>> pressure off of us so we could think about doing advanced work, make some
>>> of our curriculum planning more flexible, etc.
              I wish I could be there to talk about this (but then, I'm not
>>>>
>>>> supposed to be using my voice anyway), but I thought I'd get some of the
>>>> ideas out before the retreat and hope that some of you read them and at
>>>> least address the issues that I'm bringing up. I wish you all the best
>>>> and have a retreat full of interesting conversation! I'll be thinking of
>>> you.
>>>>
>>> J
>>>>
>>>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>>>> 206-866-6000, x6019
```

```
>>>>
>>>>
>>>>
>>>>
```

From beugm@elwha.evergreen.eduTue Nov 7 16:40:38 1995

Date: Wed, 1 Nov 1995 09:27:47 -0800 (PST)

From: Michael Beug <beggm@elwha.evergreen.edu>

To: Les Wong < wongl@elwha.evergreen.edu>

Cc: Janet Ott <ottj@elwha.evergreen.edu>, sth <sth@elwha.evergreen.edu>, Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu

Subject: Re: curriculum and retreat

I am not worried about evening courses drawing students out of programs. If we build good thematic programs they will stand on their own. In many cases the evening courses would make the day programs better by giving students who only want one aspect of a program (e.g. organic chemistry from M to O) another avenue to meet their needs. It gives students with a schedule conflict a second place to locate a critical prerequisite. It also gives students

who are only missing one prerequisite a place to get that one prerequisite without taking an entire program.

The part-time evening students need the courses for a different, but still important, set of reasons. The two groups together will provide a critical mass for the courses to go forward.

From beugm@elwha.evergreen.eduTue Nov 7 16:40:38 1995

Date: Wed, 1 Nov 1995 09:56:56 -0800 (PST)

From: Michael Beug <begg@elwha.evergreen.edu>

To: Les Wong < wongl@elwha.evergreen.edu>

Cc: Janet Ott <ottj@elwha.evergreen.edu>,

George Dimitroff <dimitrof@elwha.evergreen.edu>,

sth <sth@elwha.evergreen.edu>

Subject: Re: Reply to your 10/24

It looks to me like "tools of science" is very close to what FONS contains many years. So we have already run that experiment many times.

On Mon, 30 Oct 1995, Les Wong wrote:

- > This might be a crazy thought but let's assume that evening and
- > weekend/part time studies doesn't provide that 4 or 8 credit module.
- > What about a smallprogram of 12 credits called, "tools of science". And
- > in that program will be chem, math and biology whose intent is to provide
- > that coverage AND without a theme. It may seem dull and heretical but it
- > will also provide some momentum so that when scientists teach M20 or D2I

```
> the variability in student background will me less than what it is now.
> Students will always prefer themebased work but find themselves really
> unprepared to really benefit. when they do experience themes when they
> have the skills the benefits are even more recognizable and appreciated.
> I don't think science is ever dull but I know it can be frustrating if
> the basic tools are missing and I have to do a lot of catch up. George
> Freeman and Fred Dube are doing a parallel experience in psychology
> called "Foundations of Psychology", both report student satisfaction in
> getting "the basics" and/or updating what they learned at the
> comm.college. just a thought...les
> On Mon, 30 Oct 1995, Janet Ott wrote:
>> George - I appreciate your comments. I was really sorry to miss the
>> retreat, but my health, as I have come to realize, is more important. I
>> agree with you about service courses, and if there is a way to get more
>> math into all our programs, great. But I'm struggling with the idea that
>> we (I) am always playing catch-up with my students about several
>> different math or biology topoics. So I'm just trying to figure out how
>> to "do it." I would rather have any topic incorporated into a program.
>> I just don't want any program to "get stuck" with a set of "service
>> courses" any more than a class is, and I often feel that way about both
>> FONS and M2O, that instead of us having a theme that we're exploring,
>> we're doing coverage, from either the faculty or the student point of
>> view. So I would like to open up a discussion about what we can do about
>> this issue, and how this issue interacts with so many others.
       Thanks for the reply. Jan
>>
>>
>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>> 206-866-6000, x6019
>>
>>
>> On Sun, 29 Oct 1995, George Dimitroff wrote:
>>> Dear Jan,
>>>
>>> We scarcely scratched the surface in getting through all of the agenda
>>> items that had been planned for us, let alone others that people thought
>>> were important, but I heard a lot of support for making M2O a theme based
>>> program, that could have different themes in different years, and that
>>> would remove the organic chemistry. I applaud service courses when it
>>> comes to other people's disciplines, but I abhor the idea of having to
>>> teach calculus to a whole mess of people, with different interests in
>>> terms of how they are going to apply calculus. It was hard enough to
>>> teach the reform calculus to (largely) biology students in FONS, in 1992,
>>> and they were ready for it. I believe that if more of the examples had
```

```
>>> been taken from biology and environmental science, it might have made the
>>> job easier and more interesting for the students. One reason that I came
>>> here was to get away from service courses that I hear other people, from
>>> disciplines other than mine, espousing for me to teach. I say NO! and I
>>> will hold out as long as I can! If we compromise in creating more and
>>> more courses, the whole college will revert back to Southwest Washington
>>> State College. This happened to a great extent at Fairhaven, at Western,
>>> which began at about the same time as Evergreen and whatever innovation
>>> was in that place was gutted and compromised to death in short order. We
>>> should try to think of a better way to make room for more advanced work.
>>>
>>> The retreat was very refreshing, and it was very nice to have it in the
>>> fall, when we could meet new folks and renew contact with old friends.
>>> I'm sorry that you missed it. I hope you will be in good shape for the
>>> next one.
>>>
>>> Best wishes,
             George
>>>
>>>
>>>
>>>
>>> From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
>>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>>> From: Janet Ott <ottj@elwha.evergreen.edu>
>>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
        Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>>> Subject: curriculum and retreat
>>>
>>> This is a sort of expanded message from yesterday's. I have come to the
>>> realization that my health will not allow me to go the retreat (or
>>> rather, it would, but it would set me back two weeks, which I think is
>>> rather stuid - I know from experience that bronchitis gets better only
>>> with rest), so I want to get some thoughts out about curriculum since I
>>> won't be there to state them.
>>> In talking about curriculum, I think we need to stop this
>>> arrogant stance about "what ain't broke." I agree that we work really
>>> well together and that we organize well and that our students are
>>> generally pleased, blah, blah, blah, but I think that stance stifles
>>> interesting discussion, which I think could be a real catalyst, if not
>>> for change, then for interesting ideas to percolate. I would like us to
>>> think about a couple of things.
>>> 1) the perenial issue of where to put organic chem. We always put
>>> it in M2O (or have for the past 10 years) and have stopped discussing
>>> other ways of doing it, but in fact I think it overloads the program in
>>> such a way as to preclude or at least inhibit a stong thematic drive. I
>>> really admire this year's team and hope it works because I would like to
```

```
>>> do a strong theme when I get back into it (by the way, since we are
```

- >>> planning 97-98 while at the retreat, you can pencil me in for M2O I'm
- >>> due and by that time, the physiology equipment will be ready). We always
- >>> think about putting Org. into a program, but what if we, as Les is doing
- >>> next year, have a two quarter class that then allows them entrance into
- >>> all programs that need it. Perhaps we could do the same with calculus,
- >>> that other perenial issue.
- >>> 2) the issue of coordination with env.studies. If we don't do
- >>> the above, at least we should coordinate better with es about the stuff
- >>> we both need to cover for entry level students. We could devise programs
- >>> (not just one, but a couple to be taught in rotation, or to be devised
- >>> each year by the team chosen to do the necessary topics) that would allow
- >>> entrance into more advanced programs in both areas.
- >>> 3) advanced programs. Many of us would like to even have the
- >>> chance to do an advanced program every once in a blue moon. But we have
- >>> so solidified our curriculum that we think we can't. (We always plan from
- >>> a stance of "who's going to cover x this year" rather than starting from
- >>> interesting ideas that we all have about what we'd LIKE to teach. I'd
- >>> like, just once, to do the second rather than the first and see what
- >>> happens we could come back to the "coverage issue" but I bet that the
- >>> "interesting ideas" would cover a lot of them.) But in fact, I
- >>> think we could if we were better at coordinating what we really need, and
- >>> letting some things go. We do not NEED to do FONS every year, if we have
- >>> other programs that cover similar material (witness this year's low
- >>> enrollment). We do not even need to do M2O every year, if we had other
- >>> programs that covered biochemistry and some aspect of basic biology
- >>> (let's be real it is NOT advanced biology and never has been). Jim and
- >>> I have been talking for years about doing a food program covering
- >>> biochem, physiology, environmental issues, etc., which would really be
- >>> M2O with a real theme (and if your interested, Jim, I see no reason we
- >>> couldn't do this 97-98, so let me know!, especially since the org. would
- >>> have been covered this next year with the two quarter program). There are
- >>> lots of other ideas that would do the same.
- >>> 4) classes. We have talked around this for years and it's time
- >>> to revisit it. Org. and calc. particularly come to mind as the one's
- >>> folks are most likely to be talking as "part of a program." I know it
- >>> gets taught better when incorporated into a program, but there are
- >>> interesting ways to think about this the Washington Center has lots of
- >>> information about colleges that do classes interdisciplinarily even when
- >>> they are teaching by themselves. This would free up a lot take
- >>> pressure off of us so we could think about doing advanced work, make some
- >>> of our curriculum planning more flexible, etc.
- >>> I wish I could be there to talk about this (but then, I'm not
- >>> supposed to be using my voice anyway), but I thought I'd get some of the
- >>> ideas out before the retreat and hope that some of you read them and at
- >>> least address the issues that I'm bringing up. I wish you all the best

```
>>> and have a retreat full of interesting conversation! I'll be thinking of
>>> you.
>>>
>> J
>>>
>>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>>> 206-866-6000, x6019
>>>
>>>
>>>
>>
From bopegedd@elwha.evergreen.eduTue Nov 7 16:40:43 1995
Date: Fri, 3 Nov 1995 11:58:13 -0800 (PST)
From: Dharshi Bopegedera <br/> <br/> bopegedd@elwha.evergreen.edu>
To: Les Wong < wongl@elwha.evergreen.edu>
Cc: Janet Ott <ottj@elwha.evergreen.edu>.
  George Dimitroff <dimitrof@elwha.evergreen.edu>,
  sth <sth@elwha.evergreen.edu>
Subject: Re: Reply to your 10/24
```

I think it is a good idea to have a "tool for science" program. Perhaps having it in the evening will make it more accessible to a larger group of students. This will take a big burden off a lot of science programs.

Dharshi Bopegedera

On Mon, 30 Oct 1995, Les Wong wrote:

```
> This might be a crazy thought but let's assume that evening and
> weekend/part time studies doesn't provide that 4 or 8 credit module.
> What about a smallprogram of 12 credits called, "tools of science". And
> in that program will be chem, math and biology whose intent is to provide
> that coverage AND without a theme. It may seem dull and heretical but it
> will also provide some momentum so that when scientists teach M20 or D2I
> the variability in student background will me less than what it is now.
> Students will always prefer themebased work but find themselves really
> unprepared to really benefit. when they do experience themes when they
> have the skills the benefits are even more recognizable and appreciated.
> I don't think science is ever dull but I know it can be frustrating if
> the basic tools are missing and I have to do a lot of catch up. George
> Freeman and Fred Dube are doing a parallel experience in psychology
> called "Foundations of Psychology", both report student satisfaction in
> getting "the basics" and/or updating what they learned at the
> comm.college. just a thought...les
```

> On Mon, 30 Oct 1995, Janet Ott wrote: >> George - I appreciate your comments. I was really sorry to miss the >> retreat, but my health, as I have come to realize, is more important. I >> agree with you about service courses, and if there is a way to get more >> math into all our programs, great. But I'm struggling with the idea that >> we (I) am always playing catch-up with my students about several >> different math or biology topoics. So I'm just trying to figure out how >> to "do it." I would rather have any topic incorporated into a program. >> I just don't want any program to "get stuck" with a set of "service

>> courses" any more than a class is, and I often feel that way about both >> FONS and M2O, that instead of us having a theme that we're exploring,

>> we're doing coverage, from either the faculty or the student point of

>> view. So I would like to open up a discussion about what we can do about

>> this issue, and how this issue interacts with so many others.

Thanks for the reply. Jan >>

>> On Sun, 29 Oct 1995, George Dimitroff wrote:

>>> Dear Jan,

>>> We scarcely scratched the surface in getting through all of the agenda >>> items that had been planned for us, let alone others that people thought >>> were important, but I heard a lot of support for making M2O a theme based >>> program, that could have different themes in different years, and that >>> would remove the organic chemistry. I applaud service courses when it >>> comes to other people's disciplines, but I abhor the idea of having to >>> teach calculus to a whole mess of people, with different interests in >>> terms of how they are going to apply calculus. It was hard enough to >>> teach the reform calculus to (largely) biology students in FONS, in 1992, >>> and they were ready for it. I believe that if more of the examples had >>> been taken from biology and environmental science, it might have made the >>> job easier and more interesting for the students. One reason that I came >>> here was to get away from service courses that I hear other people, from >>> disciplines other than mine, espousing for me to teach. I say NO! and I >>> will hold out as long as I can! If we compromise in creating more and >>> more courses, the whole college will revert back to Southwest Washington >>> State College. This happened to a great extent at Fairhaven, at Western, >>> which began at about the same time as Evergreen and whatever innovation >>> was in that place was gutted and compromised to death in short order. We >>> should try to think of a better way to make room for more advanced work. >>> >>> The retreat was very refreshing, and it was very nice to have it in the >>> fall, when we could meet new folks and renew contact with old friends. >>> I'm sorry that you missed it. I hope you will be in good shape for the

>>> next one.

```
>>> Best wishes,
>>>
             George
>>> From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
>>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>>> From: Janet Ott <ottj@elwha.evergreen.edu>
>>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
        Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>>> Subject: curriculum and retreat
>>>
>>> This is a sort of expanded message from yesterday's. I have come to the
>>> realization that my health will not allow me to go the retreat (or
>>> rather, it would, but it would set me back two weeks, which I think is
>>> rather stuid - I know from experience that bronchitis gets better only
>>> with rest), so I want to get some thoughts out about curriculum since I
>>> won't be there to state them.
>>> In talking about curriculum, I think we need to stop this
>>> arrogant stance about "what ain't broke." I agree that we work really
>>> well together and that we organize well and that our students are
>>> generally pleased, blah, blah, but I think that stance stifles
>>> interesting discussion, which I think could be a real catalyst, if not
>>> for change, then for interesting ideas to percolate. I would like us to
>>> think about a couple of things.
>>> 1) the perenial issue of where to put organic chem. We always put
>>> it in M2O (or have for the past 10 years) and have stopped discussing
>>> other ways of doing it, but in fact I think it overloads the program in
>>> such a way as to preclude or at least inhibit a stong thematic drive. I
>>> really admire this year's team and hope it works because I would like to
>>> do a strong theme when I get back into it (by the way, since we are
>>> planning 97-98 while at the retreat, you can pencil me in for M2O - I'm
>>> due and by that time, the physiology equipment will be ready). We always
>>> think about putting Org. into a program, but what if we, as Les is doing
>>> next year, have a two quarter class that then allows them entrance into
>>> all programs that need it. Perhaps we could do the same with calculus,
>>> that other perenial issue.
>>> 2) the issue of coordination with env.studies. If we don't do
>>> the above, at least we should coordinate better with es about the stuff
>>> we both need to cover for entry level students. We could devise programs
>>> (not just one, but a couple to be taught in rotation, or to be devised
>>> each year by the team chosen to do the necessary topics) that would allow
```

>>> entrance into more advanced programs in both areas.

>>> 3) advanced programs. Many of us would like to even have the

>>> chance to do an advanced program every once in a blue moon. But we have

```
>>> so solidified our curriculum that we think we can't. (We always plan from
>>> a stance of "who's going to cover x this year" rather than starting from
>>> interesting ideas that we all have about what we'd LIKE to teach. I'd
>>> like, just once, to do the second rather than the first and see what
>>> happens - we could come back to the "coverage issue" but I bet that the
>>> "interesting ideas" would cover a lot of them.) But in fact, I
>>> think we could if we were better at coordinating what we really need, and
>>> letting some things go. We do not NEED to do FONS every year, if we have
>>> other programs that cover similar material (witness this year's low
>>> enrollment). We do not even need to do M2O every year, if we had other
>>> programs that covered biochemistry and some aspect of basic biology
>>> (let's be real - it is NOT advanced biology and never has been). Jim and
>>> I have been talking for years about doing a food program - covering
>>> biochem, physiology, environmental issues, etc., - which would really be
>>> M2O with a real theme (and if your interested, Jim, I see no reason we
>>> couldn't do this 97-98, so let me know!, especially since the org. would
>>> have been covered this next year with the two quarter program). There are
>>> lots of other ideas that would do the same.
>>> 4) classes. We have talked around this for years and it's time
>>> to revisit it. Org. and calc. particularly come to mind as the one's
>>> folks are most likely to be talking as "part of a program." I know it
>>> gets taught better when incorporated into a program, but there are
>>> interesting ways to think about this - the Washington Center has lots of
>>> information about colleges that do classes interdisciplinarily even when
>>> they are teaching by themselves. This would free up a lot - take
>>> pressure off of us so we could think about doing advanced work, make some
>>> of our curriculum planning more flexible, etc.
>>> I wish I could be there to talk about this (but then, I'm not
>>> supposed to be using my voice anyway), but I thought I'd get some of the
>>> ideas out before the retreat and hope that some of you read them and at
>>> least address the issues that I'm bringing up. I wish you all the best
>>> and have a retreat full of interesting conversation! I'll be thinking of
>>> you.
>>>
>> J
```

Date: Fri, 3 Nov 1995 17:11:18 -0800 (PST)

From: George Dimitroff < dimitrof@elwha.evergreen.edu>

To: Les Wong < wongl@elwha.evergreen.edu>

Cc: Janet Ott <ottj@elwha.evergreen.edu>, sth <sth@elwha.evergreen.edu>

Subject: Re: Reply to your 10/24

When I wrote my note to Janet, I was concerned that ST faculty had talked a lot at the retreat, about moving subject matter (such as organic chem, precalculus, and calculus) out of programs and into

courses. I wanted to get my two-cents in, in support of the notion that if we want chemists (or whoever) to learn calculus (or whatever), then it will be more effective for students if we weave that mathematics into the subject matter of the chemistry (or whatever) rather than present it alone, without any direct relevance to the subjects in which the students have a strong interest. I still feel this way, but it is more difficult and much more time consuming to organize and to teach a program with the weaving built into a program, than to separate the pieces out. I hope I am not seeing a trend toward doing things at Evergreen, as they are done at Brand X.

John Cushing's note really said what I wanted to say better than I did!

On Mon, 30 Oct 1995, Les Wong wrote:

```
> good point george, then if FONS is abandoned, how does a student prepare
> for m20, d2i, math syst., nrg syst., or as Josie is asking, how do we
> prepare mathematicians? I was stunned at the number of retreat
> conversations addressing the wide variability of preparedness for
> technical areas, that is, faculty frustrated at having to suspend or
> alter their plans to address the coverage issue before they could
> approach the intended content; and this was a room full of social
> scientists talking about quantitative skills! thanks for the discussion,
> i hope it continues. les
> On Mon, 30 Oct 1995, George Dimitroff wrote:
>> Les,
>>
>> Foundations of Natural Science (FONS) was suppose to do that job! for the
>> sciences, but I believe that I heard faculty in ST (formerly (?) STH) at
>> the retreat, talking of doing away with FONS. A FONS-type program is
>> about as far as I am willing to go. I have taught statistics, pre-calc,
>> linear algebra, and calculus in courses at TESC, and I probably will go
>> on doing it, but I will really start kicking and screaming if the college
>> decides to teach mathematics mainly as courses.
>> George
```

>> On Mon, 30 Oct 1995, Les Wong wrote:

```
>>> This might be a crazy thought but let's assume that evening and >>> weekend/part time studies doesn't provide that 4 or 8 credit module. >>> What about a smallprogram of 12 credits called, "tools of science". And >>> in that program will be chem, math and biology whose intent is to provide
```

```
>>> that coverage AND without a theme. It may seem dull and heretical but it
>>> will also provide some momentum so that when scientists teach M20 or D2I
>>> the variability in student background will me less than what it is now.
>>> Students will always prefer themebased work but find themselves really
>>> unprepared to really benefit. when they do experience themes when they
>>> have the skills the benefits are even more recognizable and appreciated.
>>> I don't think science is ever dull but I know it can be frustrating if
>>> the basic tools are missing and I have to do a lot of catch up. George
>>> Freeman and Fred Dube are doing a parallel experience in psychology
>>> called "Foundations of Psychology", both report student satisfaction in
>>> getting "the basics" and/or updating what they learned at the
>>> comm.college. just a thought...les
```

>>> On Mon, 30 Oct 1995, Janet Ott wrote:

```
>>>> George - I appreciate your comments. I was really sorry to miss the
>>>> retreat, but my health, as I have come to realize, is more important. I
>>>> agree with you about service courses, and if there is a way to get more
>>>> math into all our programs, great. But I'm struggling with the idea that
>>>> we (I) am always playing catch-up with my students about several
>>>> different math or biology topoics. So I'm just trying to figure out how
>>>> to "do it." I would rather have any topic incorporated into a program.
>>>> I just don't want any program to "get stuck" with a set of "service
>>>> courses" any more than a class is, and I often feel that way about both
>>>> FONS and M2O, that instead of us having a theme that we're exploring,
>>>> we're doing coverage, from either the faculty or the student point of
>>>> view. So I would like to open up a discussion about what we can do about
>>>> this issue, and how this issue interacts with so many others.
>>>> Thanks for the reply. Jan
```

>>>> On Sun, 29 Oct 1995, George Dimitroff wrote:

>>>> Dear Jan,

```
>>>> We scarcely scratched the surface in getting through all of the agenda >>>> items that had been planned for us, let alone others that people thought >>>> were important, but I heard a lot of support for making M2O a theme based >>>> program, that could have different themes in different years, and that >>>> would remove the organic chemistry. I applaud service courses when it >>>> comes to other people's disciplines, but I abhor the idea of having to >>>> teach calculus to a whole mess of people, with different interests in >>>> terms of how they are going to apply calculus. It was hard enough to >>>> teach the reform calculus to (largely) biology students in FONS, in 1992, >>>> and they were ready for it. I believe that if more of the examples had >>>> been taken from biology and environmental science, it might have made the >>>> job easier and more interesting for the students. One reason that I came
```

```
>>>> disciplines other than mine, espousing for me to teach. I say NO! and I
>>>> will hold out as long as I can! If we compromise in creating more and
>>>> more courses, the whole college will revert back to Southwest Washington
>>>> State College. This happened to a great extent at Fairhaven, at Western,
>>>> which began at about the same time as Evergreen and whatever innovation
>>>> was in that place was gutted and compromised to death in short order. We
>>>> should try to think of a better way to make room for more advanced work.
>>>> The retreat was very refreshing, and it was very nice to have it in the
>>>> fall, when we could meet new folks and renew contact with old friends.
>>>> I'm sorry that you missed it. I hope you will be in good shape for the
>>>> next one.
>>>> Best wishes,
>>>>>
                George
>>>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>>>> From: Janet Ott <ottj@elwha.evergreen.edu>
>>>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
           Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>>>> Subject: curriculum and retreat
>>>> This is a sort of expanded message from yesterday's. I have come to the
>>>> realization that my health will not allow me to go the retreat (or
>>>> rather, it would, but it would set me back two weeks, which I think is
>>>> rather stuid - I know from experience that bronchitis gets better only
>>>> with rest), so I want to get some thoughts out about curriculum since I
>>>> won't be there to state them.
>>>>
              In talking about curriculum, I think we need to stop this
>>>> arrogant stance about "what ain't broke." I agree that we work really
>>>> well together and that we organize well and that our students are
>>>> generally pleased, blah, blah, but I think that stance stifles
>>>> interesting discussion, which I think could be a real catalyst, if not
>>>> for change, then for interesting ideas to percolate. I would like us to
>>>> think about a couple of things.
              1) the perenial issue of where to put organic chem. We always put
>>>> it in M2O (or have for the past 10 years) and have stopped discussing
>>>> other ways of doing it, but in fact I think it overloads the program in
>>>> such a way as to preclude or at least inhibit a stong thematic drive. I
>>>> really admire this year's team and hope it works because I would like to
>>>> do a strong theme when I get back into it (by the way, since we are
>>>> planning 97-98 while at the retreat, you can pencil me in for M2O - I'm
```

>>>> here was to get away from service courses that I hear other people, from

```
>>>> due and by that time, the physiology equipment will be ready). We always
>>>> think about putting Org. into a program, but what if we, as Les is doing
>>>> next year, have a two quarter class that then allows them entrance into
>>>>> all programs that need it. Perhaps we could do the same with calculus,
>>>> that other perenial issue.
              2) the issue of coordination with env.studies. If we don't do
>>>>
>>>> the above, at least we should coordinate better with es about the stuff
>>>> we both need to cover for entry level students. We could devise programs
>>>> (not just one, but a couple to be taught in rotation, or to be devised
>>>> each year by the team chosen to do the necessary topics) that would allow
>>>> entrance into more advanced programs in both areas.
              3) advanced programs. Many of us would like to even have the
>>>>
>>>> chance to do an advanced program every once in a blue moon. But we have
>>>> so solidified our curriculum that we think we can't. (We always plan from
>>>> a stance of "who's going to cover x this year" rather than starting from
>>>> interesting ideas that we all have about what we'd LIKE to teach. I'd
>>>> like, just once, to do the second rather than the first and see what
>>>> happens - we could come back to the "coverage issue" but I bet that the
>>>> "interesting ideas" would cover a lot of them.) But in fact, I
>>>> think we could if we were better at coordinating what we really need, and
>>>> letting some things go. We do not NEED to do FONS every year, if we have
>>>> other programs that cover similar material (witness this year's low
>>>> enrollment). We do not even need to do M2O every year, if we had other
>>>> programs that covered biochemistry and some aspect of basic biology
>>>> (let's be real - it is NOT advanced biology and never has been). Jim and
>>>> I have been talking for years about doing a food program - covering
>>>> biochem, physiology, environmental issues, etc., - which would really be
>>>> M2O with a real theme (and if your interested, Jim, I see no reason we
>>>> couldn't do this 97-98, so let me know!, especially since the org. would
>>>> have been covered this next year with the two quarter program). There are
>>>> lots of other ideas that would do the same.
>>>>
              4) classes. We have talked around this for years and it's time
>>>> to revisit it. Org. and calc. particularly come to mind as the one's
>>>> folks are most likely to be talking as "part of a program." I know it
>>>> gets taught better when incorporated into a program, but there are
>>>> interesting ways to think about this - the Washington Center has lots of
>>>> information about colleges that do classes interdisciplinarily even when
>>>> they are teaching by themselves. This would free up a lot - take
>>>> pressure off of us so we could think about doing advanced work, make some
>>>> of our curriculum planning more flexible, etc.
              I wish I could be there to talk about this (but then, I'm not
>>>>
>>>> supposed to be using my voice anyway), but I thought I'd get some of the
>>>> ideas out before the retreat and hope that some of you read them and at
>>>> least address the issues that I'm bringing up. I wish you all the best
>>>> and have a retreat full of interesting conversation! I'll be thinking of
>>>> you.
```

```
>>>> J
>>>>>
>>>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>>>>>206-866-6000, x6019
>>>>>
>>>>
>>>>>
>>>>
>>>
>>
```

From wongl@elwha.evergreen.eduTue Nov 7 16:40:51 1995

Date: Sun, 5 Nov 1995 22:42:28 -0800 (PST)

From: Les Wong < wongl@elwha.evergreen.edu>

To: George Dimitroff <dimitrof@elwha.evergreen.edu>

Cc: Janet Ott <otti@elwha.evergreen.edu>, sth <sth@elwha.evergreen.edu>

Subject: Re: Reply to your 10/24

john's point is very well taken as is George's. Developing some sort of complementary system where thematic integrity is paramount with some system of more specialized skill development is not an easy problem. Perhaps on a more macro-level that is the very partnership to exist between day:fulltime programs and evening:part-time studies. I remain sensitive to the student who just wants a piece of M20 for example but has to take the whole program. Patrick Hill has written a provocative piece on how we overestimate the benefits of year long coordinated studies programs and how they conflict with student interests. les On Fri, 3 Nov 1995, George Dimitroff wrote:

```
> When I wrote my note to Janet, I was concerned that ST faculty had
> talked a lot at the retreat, about moving subject matter (such as
> organic chem, precalculus, and calculus) out of programs and into
> courses. I wanted to get my two-cents in, in support of the notion that
> if we want chemists (or whoever) to learn calculus (or whatever), then it
> will be more effective for students if we weave that mathematics into the
> subject matter of the chemistry (or whatever) rather than present it
> alone, without any direct relevance to the subjects in which the students
> have a strong interest. I still feel this way, but it is more difficult
> and much more time consuming to organize and to teach a program with the
> weaving built into a program, than to separate the pieces out. I hope I
> am not seeing a trend toward doing things at Evergreen, as they are done
> at Brand X.
```

> John Cushing's note really said what I wanted to say better than I did!

> On Mon, 30 Oct 1995, Les Wong wrote:

- >> good point george, then if FONS is abandoned, how does a student prepare
- >> for m20, d2i, math syst., nrg syst., or as Josie is asking, how do we
- >> prepare mathematicians? I was stunned at the number of retreat
- >> conversations addressing the wide variability of preparedness for
- >> technical areas, that is, faculty frustrated at having to suspend or
- >> alter their plans to address the coverage issue before they could
- >> approach the intended content; and this was a room full of social
- >> scientists talking about quantitative skills! thanks for the discussion,
- >> i hope it continues. les
- >> On Mon, 30 Oct 1995, George Dimitroff wrote:
- >>> Les,
- >>> Foundations of Natural Science (FONS) was suppose to do that job! for the
- >>> sciences, but I believe that I heard faculty in ST (formerly (?) STH) at
- >>> the retreat, talking of doing away with FONS. A FONS-type program is
- >>> about as far as I am willing to go. I have taught statistics, pre-calc,
- >>> linear algebra, and calculus in courses at TESC, and I probably will go
- >>> on doing it, but I will really start kicking and screaming if the college
- >>> decides to teach mathematics mainly as courses.
- >>> George

>>> On Mon, 30 Oct 1995, Les Wong wrote:

- >>>> This might be a crazy thought but let's assume that evening and
- >>>> weekend/part time studies doesn't provide that 4 or 8 credit module.
- >>>> What about a smallprogram of 12 credits called, "tools of science". And
- >>>> in that program will be chem, math and biology whose intent is to provide
- >>>> that coverage AND without a theme. It may seem dull and heretical but it
- >>>> will also provide some momentum so that when scientists teach M20 or D2I
- >>>> the variability in student background will me less than what it is now.
- >>>> Students will always prefer themebased work but find themselves really
- >>>> unprepared to really benefit. when they do experience themes when they
- >>>> have the skills the benefits are even more recognizable and appreciated.
- >>>> I don't think science is ever dull but I know it can be frustrating if
- >>>> the basic tools are missing and I have to do a lot of catch up. George
- >>>> Freeman and Fred Dube are doing a parallel experience in psychology
- >>> called "Foundations of Psychology", both report student satisfaction in
- >>>> getting "the basics" and/or updating what they learned at the
- >>> comm.college. just a thought...les

```
>>>> George - I appreciate your comments. I was really sorry to miss the
>>>> retreat, but my health, as I have come to realize, is more important. I
>>>> agree with you about service courses, and if there is a way to get more
>>>> math into all our programs, great. But I'm struggling with the idea that
>>>> we (I) am always playing catch-up with my students about several
>>>> different math or biology topoics. So I'm just trying to figure out how
>>>> to "do it." I would rather have any topic incorporated into a program.
>>>> I just don't want any program to "get stuck" with a set of "service
>>>> courses" any more than a class is, and I often feel that way about both
>>>> FONS and M2O, that instead of us having a theme that we're exploring,
>>>> we're doing coverage, from either the faculty or the student point of
>>>> view. So I would like to open up a discussion about what we can do about
>>>> this issue, and how this issue interacts with so many others.
              Thanks for the reply. Jan
>>>>>
>>>>
>>>> Janet Ott, Ph. D. Lab I The Evergreen State College Olympia, Wa. 98505
>>>>> 206-866-6000, x6019
>>>>
>>>>
>>>> On Sun, 29 Oct 1995, George Dimitroff wrote:
>>>> Dear Jan.
>>>>>
>>>>> We scarcely scratched the surface in getting through all of the agenda
>>>>> items that had been planned for us, let alone others that people thought
>>>>> were important, but I heard a lot of support for making M2O a theme based
>>>>> program, that could have different themes in different years, and that
>>>>> would remove the organic chemistry. I applaud service courses when it
>>>>> comes to other people's disciplines, but I abhor the idea of having to
>>>>> teach calculus to a whole mess of people, with different interests in
>>>>> terms of how they are going to apply calculus. It was hard enough to
>>>>> teach the reform calculus to (largely) biology students in FONS, in 1992,
>>>>> and they were ready for it. I believe that if more of the examples had
>>>>> been taken from biology and environmental science, it might have made the
>>>>> job easier and more interesting for the students. One reason that I came
>>>>> here was to get away from service courses that I hear other people, from
>>>>> disciplines other than mine, espousing for me to teach. I say NO! and I
>>>>> will hold out as long as I can! If we compromise in creating more and
>>>>> more courses, the whole college will revert back to Southwest Washington
>>>>> State College. This happened to a great extent at Fairhaven, at Western,
>>>>> which began at about the same time as Evergreen and whatever innovation
>>>>> was in that place was gutted and compromised to death in short order. We
>>>>> should try to think of a better way to make room for more advanced work.
>>>>>
```

>>> On Mon, 30 Oct 1995, Janet Ott wrote:

```
>>>>> The retreat was very refreshing, and it was very nice to have it in the
>>>>> fall, when we could meet new folks and renew contact with old friends.
>>>>> I'm sorry that you missed it. I hope you will be in good shape for the
>>>>> next one.
>>>>>
>>>>> Best wishes,
>>>>>
                  George
>>>>>
>>>>>
>>>>>
>>>>>>From ottj@elwha.evergreen.eduTue Oct 24 13:12:56 1995
>>>> Date: Tue, 24 Oct 1995 12:32:56 -0700 (PDT)
>>>>> From: Janet Ott <ottj@elwha.evergreen.edu>
>>>>> To: sth <sth@elwha.evergreen.edu>, Les Wong <wongl@elwha.evergreen.edu>,
>>>>> Barbara Smith <smithb@elwha.evergreen.edu>, darneyj@elwha.evergreen.edu
>>>>> Subject: curriculum and retreat
>>>>>
>>>>> This is a sort of expanded message from yesterday's. I have come to the
>>>>> realization that my health will not allow me to go the retreat (or
>>>>> rather, it would, but it would set me back two weeks, which I think is
>>>>> rather stuid - I know from experience that bronchitis gets better only
>>>>> with rest), so I want to get some thoughts out about curriculum since I
>>>>> won't be there to state them.
              In talking about curriculum, I think we need to stop this
>>>>> arrogant stance about "what ain't broke." I agree that we work really
>>>>> well together and that we organize well and that our students are
>>>>> generally pleased, blah, blah, but I think that stance stifles
>>>>> interesting discussion, which I think could be a real catalyst, if not
>>>>> for change, then for interesting ideas to percolate. I would like us to
>>>>> think about a couple of things.
              1) the perenial issue of where to put organic chem. We always put
>>>>> it in M2O (or have for the past 10 years) and have stopped discussing
>>>>> other ways of doing it, but in fact I think it overloads the program in
>>>>> such a way as to preclude or at least inhibit a stong thematic drive. I
>>>>> really admire this year's team and hope it works because I would like to
>>>>> do a strong theme when I get back into it (by the way, since we are
>>>>> planning 97-98 while at the retreat, you can pencil me in for M2O - I'm
>>>>> due and by that time, the physiology equipment will be ready). We always
>>>>> think about putting Org. into a program, but what if we, as Les is doing
>>>>> next year, have a two quarter class that then allows them entrance into
>>>>> all programs that need it. Perhaps we could do the same with calculus,
>>>>> that other perenial issue.
              2) the issue of coordination with env.studies. If we don't do
>>>>> the above, at least we should coordinate better with es about the stuff
>>>>> we both need to cover for entry level students. We could devise programs
>>>>> (not just one, but a couple to be taught in rotation, or to be devised
```

```
>>>>> each year by the team chosen to do the necessary topics) that would allow
>>>>> entrance into more advanced programs in both areas.
              3) advanced programs. Many of us would like to even have the
>>>>> chance to do an advanced program every once in a blue moon. But we have
>>>>> so solidified our curriculum that we think we can't. (We always plan from
>>>>> a stance of "who's going to cover x this year" rather than starting from
>>>>> interesting ideas that we all have about what we'd LIKE to teach. I'd
>>>>> like, just once, to do the second rather than the first and see what
>>>>> happens - we could come back to the "coverage issue" but I bet that the
>>>>> linteresting ideas" would cover a lot of them.) But in fact, I
>>>>> think we could if we were better at coordinating what we really need, and
>>>>> letting some things go. We do not NEED to do FONS every year, if we have
>>>>> other programs that cover similar material (witness this year's low
>>>>> enrollment). We do not even need to do M2O every year, if we had other
>>>>> programs that covered biochemistry and some aspect of basic biology
>>>>> (let's be real - it is NOT advanced biology and never has been). Jim and
>>>>> I have been talking for years about doing a food program - covering
>>>>> biochem, physiology, environmental issues, etc., - which would really be
>>>>> M2O with a real theme (and if your interested, Jim, I see no reason we
>>>>> couldn't do this 97-98, so let me know!, especially since the org. would
>>>>> have been covered this next year with the two quarter program). There are
>>>>> lots of other ideas that would do the same.
>>>>>
              4) classes. We have talked around this for years and it's time
>>>>> to revisit it. Org. and calc. particularly come to mind as the one's
>>>>> folks are most likely to be talking as "part of a program." I know it
>>>>> gets taught better when incorporated into a program, but there are
>>>>> interesting ways to think about this - the Washington Center has lots of
>>>>> information about colleges that do classes interdisciplinarily even when
>>>>> they are teaching by themselves. This would free up a lot - take
>>>>> pressure off of us so we could think about doing advanced work, make some
>>>>> of our curriculum planning more flexible, etc.
              I wish I could be there to talk about this (but then, I'm not
>>>>>
>>>>>> supposed to be using my voice anyway), but I thought I'd get some of the
>>>>> ideas out before the retreat and hope that some of you read them and at
>>>>> least address the issues that I'm bringing up. I wish you all the best
>>>>> and have a retreat full of interesting conversation! I'll be thinking of
>>>> you.
>>>>> J
```

Date: Mon, 6 Nov 1995 08:16:38 -0800 (PST) From: Rob Cole <rscole@elwha.evergreen.edu> To: Les Wong <wongl@elwha.evergreen.edu> Subject: Full-time programs / Part-time courses

In a previous life, Les Wong wrote:

- > john's point is very well taken as is George's. Developing some sort of
- > complementary system where thematic integrity is paramount with some
- > system of more specialized skill development is not an easy problem.
- > Perhaps on a more macro-level that is the very partnership to exist
- > between day:fulltime programs and evening:part-time studies.....

Certainly Les' suggestion about undertaking a closer academic integration between day and evening programs is a good one. However, this issue transcends mere discussion about academic offerings. Staffing, and a *coordinated* administrative policy are essential. Many STH faculty members recall how two of our colleagues got burned (a polite word) in the very recent past when trying to connect with the part-time studies effort. Many of us remain leery of trying to work in an administrative environment that at times seems like Hydra, lurching in several directions at once. I remain optimistic that Barbara Smith can help bring a sense of coherence and direction to the part-time effort.

However, that may still leave us with a substantive problem: staffing part-time studies with adjuncts further removes the content and tenor of evening courses from that of the day program. The worst-case scenario is that we literally bifurcate into two curricula / two colleges. Given that most of our proposed growth for the next decade will be in part-time and evening studies, I think my concern about bifurcation is not unreasonable. Unless the day faculty have significant input into the evening program, we might well drift (unintentionally) into two colleges.

Just as I am leery of working with part-time studies given the treatment of my colleagues recently, I am equally leery of staffing courses willy-nilly with adjuncts. Les is right in calling for some careful consideration and coordination, but the problem needs more than soothing reassurances that all we need to do is to do two things at once.

Part-time studies is a tough issue that *I* don't think STH or Environmental Studies has adequately addressed lately (I have no idea what the social scientists and humanists have done with the issue). Along with everything else in curricular / specialty area reorgainzation, we might well spend some time addressing these part-time studies issues.

Perhaps we can expect that our candidate for dean of part-time studies will have some wisdom in this arena?

Rob

Date: Mon, 6 Nov 1995 13:18:51 -0800 (PST)

From: "John W. Marvin" <marvinj@elwha.evergreen.edu>

Subject: Nov 8 ST Meeting

Dear Colleagues,

There is a meeting of the Science & Technology planning unit scheduled for this Wednesday, Nov 8 from 1 to 3 in Library 2220.

I am calling for the selection of a new coordinator of this planning unit as the first order of business. I originally intended to retire from the STH convener position this year but volunteered to serve as interim planning unit coordinator this fall quarter, my understanding being that we would select a replacement this quarter. I feel we should do it sooner rather than later. I don't know how quickly the proposed planning unit structures and coordinators' positions will be officially in place, so it seems that the coordinator we select may really be 'interim' for, perhaps, the remainder of this year or longer.

The other purpose of the meeting is to continue work initiated at the retreat plus other items that the Long Range Curriculum DTF would like us to consider.

Thanks, John Marvin

Date: Mon, 6 Nov 1995 16:45:43 -0800

From: Judy Cushing <judyc@elwha.evergreen.edu>

Subject: Re: Reply to your 10/24

i enthusiastically support george's comment about integrated studies. afterall, isn't that why we're here, instead of at brandx?

When I wrote my note to Janet, I was concerned that ST faculty had talked a lot at the retreat, about moving subject matter (such as organic chem, precalculus, and calculus) out of programs and into courses. I wanted to get my two-cents in, in support of the notion that if we want chemists (or whoever) to learn calculus (or whatever), then it will be more effective for students if we weave that mathematics into the subject matter of the chemistry (or whatever) rather than present it alone, without any direct relevance to the subjects in which the students have a strong interest. I still feel this way, but it is more difficult and much more time consuming to organize and to teach a program with the weaving built into a program, than to separate the pieces out. I hope I am not seeing a trend toward doing things at Evergreen, as they are done at Brand X.

Date: Tue, 7 Nov 1995 00:02:18 -0800 (PST)

From: Betty Kutter <kutterb@elwha.evergreen.edu> Subject: Re: Full-time programs / Part-time courses

I strongly support Rob's concerns and suggestions. Part-time programs offer many important opportunities -- for people to explore in new directions, for example. (When we used to have more modules, it was much easier for people to explore areas well beyond their own experience, such as "Biology for the Citizen" type courses, or Chemistry and the Environment. We still in many ways treat adjunct faculty like second-class citizens, in terms of pay, predictability, integration into our "community", making quality assurance a potential problem. What happened to the 2 colleagues who wanted to offer an excellent half-time program emphasizes, as Rob says, the nature of the problems, including that of relying on promised part-time offerings.

Betty Kutter

Date: Tue, 7 Nov 1995 11:53:44 -0800 (PST) From: Rob Knapp knappr@elwha.evergreen.edu> Subject: indoor science area follow-on from retreat

Jin and area -- I'm passing on the most important results of the retreat first, namely the list of things S&T agreed, and the agenda for our next meeting. If time allows, I'll pass along the rest of the discussion notes later today.

A transcription from the board (Thursday PM):

WHAT HAVE WE AGRRED ON?

- 1. 3 core programs: 2 qtrs chem / ? bio / ?
- 2. Alternate upper class offerings
- 3. Soph level thematic
- 4. D to I continues
- 5. M&M continues
- 6. M to O continues

AGENDA FOR NEXT MEETING:

- 1. What should be in the (3) core programs? (role of core in college)
- 2. Jr-Sr interdiv ES-ST
 - M2O this year F: world ecology + microspecies/climate /
 W: physiology of systems
 S: epidemiology, env chem
 (Jim+Jeff+Betty+Patty+Jude)
- 3. Modifications to M&M and M2O
- 4. Interdiv -- Soc Sci -- Humanities
 - -- Arts

For questions or clarifications, come to the area meeting tomorrow (Weds, 11/8, Lib 2220).

Rob Knapp

Date: Tue, 7 Nov 1995 16:31:12 -0800 (PST) From: Jeff Kelly <kellyj@elwha.evergreen.edu>

Subject: Redesigning the Curriculum

I have been catching up on e-mail messages and want to make several comments about the overall scope of the PU (Planning Unit) and organic chemistry in particular.

First courses can plan a role in the PU if we remember to provide pathways that cover needs, lead students to goals and can accomodate the more than 50% of our students who are transfers. Although we usually think about the big team-taught coordinated studies programs, there are many group contracts, even one faculty group contracts, that can advance interdisciplinary learning. Teaching together year after year we should learn about other ways of thinking and knowing, other approaches to problems and applications of knowledge to other fields. This should provide courses taught by Evergreen faculty with connections to other disciplines and thought processes and make the them more than the department-serving courses of other institutions.

Second, organic chemistry plays a pivotal role in the science as it provides the bridge between the principles of chemistry taught at the first-year level and broad areas of biology, ecological cycles, agriculture, commercial products, etc. I would argue that the significance of making these connections in the teaching or organic makes it important that any organic course replacing organic in M2O be taught by Evergreen faculty and not by part-time hires from the community.

Third, it is physically impossible to teach organic chemistry as a 4-quarter hour sequence during the year at Evergreen. If anyone is interested I can explain the space, FTE and time limitations that make this a fact for full-time faculty.

So looking at some of the suggestions that have been made so far I would like to add the following for chemistry in the PU:

First Year:

some (2 qtrs?) general chemistry in at least one CORE program.

Second Year:

- 1. continue current M&M with major's level general chemistry with a p. chem base.
- 2. provide an organic chemistry course that is 6 qtr each of fall and winter quarters. (It could also be done lecture only for 4 each quarter)

Let this course be an option for students in:

- a. M&M students with strong chemistry could substitute organic for chem in M&M as we have done in the past.
- b. A (thematic?) biology-based program at the FONS level for which this course is the chemistry content.
- c. A Habitat's-level program in ES PU
- d. A Health-oriented program in ES PU
- >From the ES PU plans it might be possible to also offer an 8-qtr hr organic spring quarter which starts over again. Students who did not do lab fall and winter could pick lab during this quarter.

Third Year:

M2O - now M2O can integrate biology and chemistry the way many biology faculty want. This should be appropriate for the pre-health sciences students that we continue to attract.

Third/Fourth Year:

In keeping with the alternating upper division offerings:

every other year

AMR or a research/theory-based offering sometimes called Chemical Systems. We need to find ways to included post-M&M math for these students which is the problem several have brought up. alternating with

An environmental analysis/analytical chemistry/instrumentation offering along the lines of what K.V., Steve Milder and others began a number of years ago. Could be done with ES PU.

I can see biology beyond the junior level M2O as Janet suggested but I'll leave that to the biologists to consider.

Jeff Kelly

On Tue, 7 Nov 1995, Rob Knapp wrote:

```
> Jin and area -- I'm passing on the most important results of the retreat
> first, namely the list of things S&T agreed, and the agenda for our next
> meeting. If time allows, I'll pass along the rest of the discussion notes
> later today.
>
> A transcription from the board (Thursday PM):
> WHAT HAVE WE AGRRED ON?
> 1. 3 core programs: 2 qtrs chem / ? bio / ?
> 2. Alternate upper class offerings
> 3. Soph level thematic
> 4. D to I continues
> 5. M&M continues
> 6. M to O continues
> AGENDA FOR NEXT MEETING:
> 1. What should be in the (3) core programs? (role of core in college)
> 2. Jr-Sr interdiv ES-ST
    -- M2O this year F: world ecology + microspecies/climate /
              W: physiology of systems
```

```
> S: epidemiology, env chem
> (Jim+Jeff+Betty+Patty+Jude)
> 3. Modifications to M&M and M2O
> 
> 4. Interdiv -- Soc Sci
> -- Humanities
> -- Arts
> 
> For questions or clarifications, come to the area meeting tomorrow (Weds, > 11/8, Lib 2220).
> Rob Knapp
> 
> Rob Knapp
```