10KS5165MS: STATISTICS: ANALYTICS, MS

In Workflow

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10. Board of Trustees (none)
11. IBHE (none)
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Approval Path

1. Tue, 11 Aug 2020 20:57:56 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Tue, 11 Aug 2020 21:55:29 GMT
   Bo Li (libo): Approved for 1583 Head
3. Tue, 11 Aug 2020 22:19:24 GMT
   Kelly Ritter (ritterk): Approved for KV Dean
4. Wed, 12 Aug 2020 00:32:24 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
5. Wed, 12 Aug 2020 14:21:00 GMT
   Allison McKinney (agrindly): Approved for Grad_College
6. Wed, 12 Aug 2020 17:53:27 GMT
   Kathy Martensen (kmartens): Approved for Provost

History

1. Sep 18, 2019 by Deb Forgacs (dforgacs)
2. Oct 22, 2019 by Deb Forgacs (dforgacs)

Date Submitted:Tue, 11 Aug 2020 20:22:51 GMT

Viewing:10KS5165MS : Statistics: Analytics, MS

Changes proposed by: Amy Elli

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

Proposal Title:

If this proposal is one piece of a multi-element change please include the other impacted programs here. *example: A BS revision with multiple concentration revisions*

Establishment of Online Delivery Mode of Instruction to Existing, On-Campus Graduate Degree Programs- MS in Statistics (tied to the Statistics, MS (key 58) and Analytics concentration (Key 781))

EP Control Number

EP.21.007

Official Program Name

Statistics: Analytics, MS

Effective Catalog Term

Fall 2020

Sponsor College

Liberal Arts & Sciences

Sponsor Department

Statistics

Sponsor Name

Jeff Douglas, Associate Chair and Darren Glosemeyer, Director MS Program

Sponsor Email

jeffdoug@illinois.edu and glosemey@illinois.edu

College Contact

Kelly Ritter

College Contact Email

ritterk@illinois.edu

Program Description and Justification

Justification for proposal change:

This proposal is to create an entirely online version of the current MS degree program in Statistics (MS and the Analytics concentration). The program itself does not differ at all from the current MS program. It has precisely the same requirements. The only difference is that a student may complete it doing entirely online coursework. This is made possible by the massive effort we undertook to develop online versions of courses to prepare for the uncertainty of the Fall 2020 schedule due to COVID-19. Now we have a full slate of online courses for MS students, and expect to have an online version of nearly every course by Fall 2021.

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Statistics, MS

Academic Level

Graduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

will allow degrees to be awards for students taking classes online.

What is the typical time to completion of this program?

3 semesters

What are the minimum Total Credit Hours required for this program?

32-36

Delivery Method

Is this program available on campus and online?

Yes

This program is available:

On Campus and Online

Describe the use of this delivery method:

See attached documents

Budget

Are there budgetary implications for this revision?

No

Will the program or revision require staffing (faculty, advisors, etc.) beyond what is currently available?

No

Attach File(s)

Online Delivery of Programs Supplemental Questions.docx
standards.pdf

Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?

No

Technology

Will the program need additional technology beyond what is currently available for the unit?

Yes

Technology Additional Needs

Technology Needs	Year 1	Year 5	Notes
Because of the online nature of this, as well as the emphasis on data analysis in the curriculum, we anticipate that each student will need various cloud computing accounts such as Microsoft Azure, Databricks and R-studio cloud.	$4000	$8000	Based on our experience with these and existing University of Illinois contracts, we expect this can be achieved for less than $100 per student annually. Based on enrollment projects that would be $4,000 in year 1 and $8,000 in year 5.

Non-Technical Resources

Will the program require additional supplies, services or equipment (non-technical)?

No

Resources

Faculty Resources

Please address the impact on faculty resources including any changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc. Describe how the unit will support student advising, including job placement and/or admission to advanced studies.

This program will not change our current policies on teaching loads, and no additional faculty will be needed specifically for this program. Class sizes might decrease slightly for our resident program, because some students might elect to take a portion of their courses online. Because our total number of majors in BS and MS programs roughly 1100 and growing, adding 80 students in this program won't significantly alter student-faculty ratios.

For advising, we have a team consisting of an MS Director, two faculty advisors, and two graduate contacts. Everyone on this team has become highly adept at advising students online, due to the experience they were forced to acquire during the covid-19 pandemic. It will be very natural to continue advising in such a manner for fully online students.

The success of MS programs in Statistics depends very much upon job placement. To address this we have a Director for Corporate and External Affairs whose mission is to engage with corporations to both find funds for the program and also find opportunities for students. We also recently hired a careers specialist, Andrea Franklin, whose purpose is to help students finds jobs. Andrea has been advising online in recent months and is quite prepared to do this for online students. We will also run our Career Forum online this year. The career forum attracts a great many companies, each wishing to hire multiple students.

Library Resources

Describe your proposal's impact on the University Library's resources, collections, and services. If necessary please consult with the appropriate disciplinary specialist within the University Library.

None

Instructional Resources

Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change?

No

Does this new program/proposed change result in the replacement of another program?

No

Does the program include other courses/subjects impacted by the creation/revision of this program?

No

Financial Resources

How does the unit intend to financially support this proposal?

Our current MS program as well as much of our BS instruction is supported by funds we receive from the MS program. Those same funds will be used to support this program. We expect that it will more than pay for itself in the first year.

Will the unit need to seek campus or other external resources?

No

Is this program requesting self-supporting status?

No

Program Regulation and Assessment

Briefly describe the plan to assess and improve student learning, including the program's learning objectives; when, how, and where these learning objectives will be assessed; what metrics will be used to signify student's achievement of the stated learning objectives; and the process to ensure assessment results are used to improve student learning. (Describe how the program is aligned with or meets licensure, certification, and/or entitlement requirements, if applicable).

Demand for Statistics degrees has grown tremendously in the age of data science. Our BS program had an enrollment over 900 in Fall 2019, whereas it was less than 200 in Fall 2012. The MS program has seen similar growth over that period. This is in response to the rapidly growing number of job opportunities for statisticians and data scientists. The State of Illinois is investing in data science with its DPI program and exemplified by its investment in the Illini Hall/Altgeld project which includes a floor for a data science center.

Our MS program has a highly developed curriculum and is consistently among the five biggest programs nationally. The program is prepared to be fully available online within a year. Much smaller data analytics online programs exist at Northwestern University and University of Illinois at Springfield.

The success of MS programs in Statistics depends very much upon job placement. To address this we have a Director for Corporate and External Affairs whose mission is to engage with corporations to both find funds for the program and also find opportunities for students. We also recently hired a careers specialist, Andrea Franklin, whose purpose is to help students finds jobs. Andrea has been advising online in recent months and is quite prepared to do this for online students. We will also run our Career Forum online this year, and it is likely we could start having one face-to-face and one online career forum each year. The career forum attracts a great many companies, each wishing to hire multiple students.

Is the career/profession for graduates of this program regulated by the State of Illinois?

No

Program of Study

"Baccalaureate degree requires at least 120 semester credit hours or 180 quarter credit hours and at least 40 semester credit hours (60 quarter credit hours) in upper division courses" (source: https://www.ibhe.org/assets/files/PrivateAdminRules2017.pdf). For proposals for new bachelor's degrees, if this minimum is not explicitly met by specifically-required 300- and/or 400-level courses, please provide information on how the upper-division hours requirement will be satisfied.

All proposals must attach the new or revised version of the Academic Catalog program of study entry. Contact your college office if you have questions.

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Code	Title	Hours
STAT 440	Statistical Data Management	4
STAT 448	Advanced Data Analysis	4
STAT 510	Mathematical Statistics I	4
STAT 425	Applied Regression and Design	4
STAT 542	Statistical Learning	4
Select one of the following:		4
STAT 424	Analysis of Variance	
STAT 426	Sampling and Categorical Data	
STAT 429	Time Series Analysis	
STAT 430	Topics in Applied Statistics	
STAT 578	Topics in Statistics	
STAT 428	Statistical Computing	4
or CS 412	Introduction to Data Mining	
STAT 427	Statistical Consulting	4
or STAT 593	STAT Internship	
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency [may be waived with approval])	4
Select one of the following:		4
STAT 525	Computational Statistics	
STAT 571	Multivariate Analysis	
CS 512	Data Mining Principles	
Total hours		36-40

Other Requirements

Requirement	Description
Other requirements may overlap	
A concentration is not required.	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

EP Documentation

Attach Rollback/Approval Notices

Re_ Proposals_ Statistics Analytics Concentration, MS & Statistics, MS.pdf
STATMSOnlineresponse (002).pdf

DMI Documentation

Banner/Codebook Name

MS: Statistics: Analytcs-UIUC

Program Code:

10KS5165MS

Conc Code

5165

Degree Code

MS

Major Code

0329

Key: 781

Please include this completed form in the CIM-P system with proposals for online delivery of academic programs.

1. What steps are being taken and what commitments are being made to ensure that online delivery supplements rather than replaces face-to-face delivery?

In preparation for the fall 2020 semester, we have developed many online courses that have previously been taught face-to-face. Now we have a full slate of online courses to go along with our traditional courses. Our plan for fall 2020 has involved many cases of scheduling both an online and an in-person section of the same course. Though this was in response to the uncertainty surrounding covid-19, it serves as a system that will operate well in running both remote and resident MS programs.

Statistics appointed a committee called the online task force which developed standards for running online courses, and found that many of these standards apply equally in face-to-face classes. An efficient system, say for a teaching professor on a two-course load each semester, would be to teach both an online and an in-person version of the same class, sharing much of the material and resources.

Both our tenure-system and specialized faculty are now experienced with both modes of instruction, and through proper teaching assignments we have the capacity to run both face-to-face and online versions of our MS degree.

2. Assessment can be one of the most challenging points of designing a course. How will assessment change from what is employed in face-to-face delivery? How will online courses measurably fulfill the designated learning outcomes of the same face-to-face courses?

I expect to see a change in methods of assessment for online instruction that will likely be followed by face-to-face courses. In a STAT MS program once a core course in mathematical statistics has completed there is often a much greater emphasis on data analysis and projects than on pencil and paper examinations. Though proctored exams will still play a role, it makes sense that more authentic assessments should relate to what statisticians and data scientists do on the job. This could mean data analysis report preparation and presentations submitted as videos that could be followed with oral examinations. These methods of assessment provide better preparation for the careers graduates will have. Our abrupt changes after spring break in spring 2020 forced us to think of such assessments, and what we learned will apply to online courses, but will also enlighten our techniques of assessment in face-to-face courses.

3. Will online courses contain synchronous activities, asynchronous activities, or a combination? How might this differ from face-to-face courses? What are the pedagogical aims in making any activity changes? Do technological considerations limit the pedagogical choices?

There will typically be a combination, and this is meant to replicate the experience of face-to-face courses. Lectures will be asynchronous with videos posted each week. Most direct interaction takes place in office hours, and like face-to-face courses, these will be synchronous.

A wide variety of synchronous office hours will be scheduled due to students residing in different time zones. There are few technological limitations in doing this, like we found in spring 2020 when we all had to go online. For example, a zoom session can be held with an instructor or TA annotating a document or using a document camera to produce essentially the same experience.

4. Which faculty (tenure-stream, specialized, visiting, adjunct, emeriti, graduate assistants, etc.) will be involved in course design and ongoing instruction? If teaching assistants and other graders are employed, will sufficient numbers be available and will they be required to hold the degree for which they grade? Will instructors of record for online versions of courses have generally the same level of faculty status as do instructors in face-to-face versions of the courses? Similarly, online courses often are appealing because they are easier to scale up. Will the same level of access to faculty members per student be available in each online version of a course as is available in each face-to-face version?

A combination of tenure-stream, visitors and specialized-faculty will offer courses for online MS students. To illustrate this, below is a list of faculty titles teaching online courses in Fall 2020 that would satisfy degree requirements for the MS program.

*listed in deg req
*STAT 425: Visiting Associate Prof, Assistant Prof
*STAT 426: Professor
STAT 428: Lecturer
*STAT 429: Visiting Assistant professor, Associate Professor
STAT 430: Teaching Assistant Professor, Clinical Adjunct Professor
*STAT 431: Associate professor
STAT 432: Teaching Assistant Professor
*STAT 433: Senior Lecturer
STAT 440: Senior Instructor
STAT 448: Teaching Assistant professor
*STAT 510: Assistant Professor, Teaching Assistant Professor
STAT 542: Associate Professor
STAT 571: Clinical Associate Professor
STAT 578: Associate Professor

These titles are much like they are in our face-to-face courses, and there is no plan to designate a particular track for online versus face-to-face.

TA's will be Statistics doctoral students. The program has grown to include about 70, giving us adequate capacity. MS students who have already completed a course will be eligible to work as hourly graders.

We plan to have similar enrollments in our online and resident MS programs, so class sizes and access to faculty should be roughly equal.

5. When relevant, how will problem-solving in teams and experiential learning be replicated or replaced in online versions of courses, and will faculty continue to play the same role in supervising online work of this nature as they do in face-to-face courses?

   Problem-solving in teams in Statistics is often in the form of group projects. Being online does not impose any limitations on that. We found in Spring 2020 that students work well together through zoom meetings, and other modes of online interaction. In fact, as examinations became more difficult to administer there was greater reliance on projects, and students had no difficulties. Faculty can join group meetings or have different groups present online, and the experience is very much the same.

   Experiential learning in a Statistics MS program is certified by having completed either the consulting class STAT 427 or serving an internship and taking the internship course STAT 593. Online students will still have opportunities to work as interns and get STAT 593 credit. We have not offered STAT 427 online yet, but there will be few difficulties. Students meet with clients to hear of statistical consulting problems, then work as teams to produce a report and give a presentation. This can be done online, and in fact might be able to utilize a wider range of clients and interesting problems in that way.

6. Many services that support student and instructor success — copyright clearance, assistance for students with disabilities, laboratory facilities, exam proctoring, physical library resources, referrals for academic support, other student support services, etc. — are readily accessible through campus resources for face-to-face courses but are not easily available for online courses. How will these be addressed for online courses?

   Though the online student experience will differ in some ways, we believe it can be better for some. For instance, this offers students with disabilities that limit their mobility and transportation options a choice that may not be so taxing and frustrating in many situations. For these and other disabilities we will follow DRES guidance and supply the appropriate accommodations. Videos and notes and transcriptions will be available without having to rely entirely on what was spoken in class or briefly appeared on a chalkboard. Statistics courses typically use textbooks and other materials that can be purchased online or made available through links, and rarely require physically going to a library to find materials.

   Proctoring is one of the more challenging issues with online classes, and we have a task force that follows best practices which we will implement as they evolve. This is partly alleviated by focusing on alternative methods of assessment.

   Our team of academic advisors will support the online MS program just as they do the resident program, to provide academic and professional advice, and direct students to appropriate resources.

7. Development of a single online course can require far more time and university resources than remote delivery of face-to-face courses. How will this challenge be met? What tradeoffs might occur?

Statistics has much experience with online course delivery. We play a big role in the Master of Computer Science with Concentration in Data Science program, and already have 3 courses up and running in that program that are suitable for this MS program. In addition, and even prior to covid-19, we had online versions of other courses. In order to prepare for Fall 2020, we have utilized the summer for development of several other online courses. In particular, we focused on online development of STAT 400, 410, 425, 426, 510, 571. Through the combination of courses already offered online and our investment in other courses, we now have a full slate of online courses to offer online. Having much online teaching expertise in the department was helpful, and we were able to directly follow the guidelines and best practices of our online task force to implement this.

About Staffing and Course Loads
1) It seems that Statistics is proposing to change the two-course load from two face-to-face classes, to one face-to-face and one matched online class. This would either double the course load, or double the number of required instructors. Creating an online version plus an in-person version is not comparable to having one in-person class, even with overlapping materials. How will this be managed?
2) If the plan is to increase the enrollment of remote learning students, how will Statistics cope with the increased student-to-faculty ratio?
3) Is the program planning on increasing the number of enrolled MS students to 80, or will that be the total combined number for BS and MS students?

1) We apologize for the confusion in the proposal. We do not mean that a faculty member would teach two versions of the same course for a single credit. For the most heavily attended courses it would be reasonable and efficient to allow a faculty member to earn a credit for an in-person section and another for an online section. This would ensure that resident and remote students would have a very similar experience. An example is a requirement such as stat 425 which serves both MS and BS programs. We expect we'd continue to have in-person and online versions of it, and that could be done by a single instructor for appropriate credit.

2) As our BS program has grown from under 200 to over 900 and our MS program has grown from around 80 to 180 from Fall 2012 to Fall 2019 (has taken a slight dip in 2020 due to COVID-190) our faculty has had to grow to meet the demand. We have grown in both the tenure-track and specialized faculty, and revenue from the MS program has helped us keep student to faculty ratios under control in both programs. Last year we hired 4 tenure-track faculty (2.66 FTE) and 3 specialized faculty, with all specialized faculty hires paid through MS funds. We are meeting the demand for Statistics degrees by a corresponding growth in the faculty and will continue to do so. In fact, revenue from this proposed program will allow us to improve our student to faculty ratios. We have over 1100 students in our degree programs, and adding 80 is a small percentage growth, but will provide funds for additional specialized faculty which will benefit our BS and MS programs.

3) The increase in 80 is for our online MS program. The BS program has averaged an increase of nearly 90 per year for the past 8 years.

About Pedagogy
1) How will Statistics ensure that moving coursework from in-person classes to completely asynchronous classes, with only synchronous office hours, will be pedagogically equivalent?
2) What measures will be deployed to address the needs of students with disabilities? The automatic translation features of Kaltura will not reach the required accuracy in an area of specialized vocabulary (such as Statistics).

1) We have already built rich online education experiences, and our online courses in the Master of Computer Science with Concentration in Data Science online program have been very highly rated. When COVID-19 forced the whole department into online teaching we relied on several faculty members in the department to set the standards for achieving excellence. Several statistics instructors and others in the department with expertise in online teaching worked hard for several weeks to produce a document we refer to as the Statistics Online Standards, which we believe was submitted as an attachment with the online MS proposal. It calls for much interaction and synchronous meeting times with both the instructors and the TAs. We believe our instruction can be at least as good in the online program. Our standards call for the types of notes and materials that must be posted but also a variety of online meetings with instructors and TAs and the use of forums such as Piazza to foster additional interaction.

2) That is a very good question and we have been thinking of such issues, not only for the online MS program but in general now that we have many online courses. One point is that our online standards specify that recording lectures isn't enough, and must be accompanied by clear and complete notes. Closed captioning for hearing impaired is very critical and we agree that Kaltura may not be sufficient. However, as STEM online programs have been created, so have tools that are capable of closed captioning in the mathematical sciences. For example, the 3Play Media offers tools for closed captioning which have been used by MIT, which makes closed captioning available for all of its open courses in engineering and the sciences. We have consulted with Lori Lane and Jon Gunderson of DRES and received much useful advice, not only for hearing impaired but also for the sight impaired and those with learning disabilities. For example, we learned that there are techniques for converting Latex source code into blind accessible material. DRES has provided many contacts for further advice, which we will seek as we go forward.

About Student Options
1) Can students shift between in-person and online options?
2) In-person students can take online courses. Would the reverse be true?

1. Once admitted we aim to afford students as much flexibility to move between MS programs as possible. Our admissions standards will be the same for in-person and online programs, so we see no reason to restrict them.
2. Yes, if it is practical it will be allowed.

Jennifer,

Thanks once again to you and your committee. I've attached a response to the committee's concerns. Please let me know if you need anything else. Take care.

Jeff

From: Pahre, Jennifer N <jpahre@illinois.edu>
Sent: Thursday, September 3, 2020 2:04 PM
To: Douglas, Jeffrey A <jeffdoug@illinois.edu>; Glosemeyer, Darren <glosemey@illinois.edu>
Cc: Lehman, Barbara J <bjlehman@illinois.edu>; Martensen, Kathy <kmartens@illinois.edu>
Subject: Proposals: Statistics Analytics Concentration, MS & Statistics, MS

Professors Douglas and Glosemeyer,

I hope that your week is going well, and that you and your families are keeping healthy.

I'm the chair of subcommittee A of the Senate Educational Policy Committee. Two proposals from the Department of Statistics' (referenced above) came to my subcommittee for initial review. Several members of my subcommittee had some questions, and as you both are listed as the proposals' sponsors, I am reaching out.   It is my hope to clear up these questions before our next Ed Pol meeting (on September 14). I'd like to present your proposals with the questions answered to facilitate its approval.

Here are the questions:

About Staffing and Course Loads
1) It seems that Statistics is proposing to change the two-course load from two face-to-face classes, to one face-to-face and one matched online class. This would either double the course load, or double the number of required instructors. Creating an online version plus an in-person version is not comparable to having one in-person class, even with overlapping materials. How will this be managed?
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2) In-person students can take online courses. Would the reverse be true?

Thank you in advance for your assistance.

Kind regards,

Jennie Pahre

Jennifer N. Pahre
Director of Undergraduate Studies
Assistant Teaching Professor
University of Illinois College of Law

Statistics Online: Standards

The following document outlines standards that are expected to be upheld for teaching online courses for the Department of Statistics at the University of Illinois at Urbana-Champaign. For the Fall 2020 semester, these standards should be considered **strong suggestions**, not requirements. After the Fall 2020 semester, the relevant committees will seek feedback while working towards finalizing these standards as requirements.

Access and Environment

1. Instructors will make a good faith effort to create and maintain a **welcoming learning environment** that is accessible to and understanding of the needs and aspirations of a diverse group of students.

Course Structure

2. In addition to the usual **syllabus** elements, the following should appear:
   - A list of all graded course activities and their associated deadlines
   - Office hour time, "location," and access instructions
   - A link to the course LMS or website
   - A list of all technologies required to interact with and complete the course

3. Course content should be designed and released as **weekly modules** published in an LMS or on a course website. All material for a weekly module should be released simultaneously. This weekly material includes, but is not limited to:
   - A list of learning objectives
   - A list of topics
   - A list of required readings
   - A list of required lecture videos
   - A list of assessments and their deadlines
     - Assessments should be released in the same week that content is introduced, but may have future deadlines.

4. At least 20% of the course grade (mirroring LAS online policy) should be based on **identity verified** assessments. These assessments should include:
   - Reasonable safeguards to ensure that the student completing the assessment is the student receiving the grade for the assessment
   - High reliability that students are using only the aids intended

Course Management

5. The course must be associated with a University supported **learning management system** (LMS) which contains at minimum:
   - The course syllabus
   - Links to any external resources, especially any course website
   - An automatically updated University roster or the ability to manually manage a student roster
     - It would be extremely beneficial for this LMS to contain an announcement system that:
       - Can send announcements based on the roster to student emails
       - Keep a record of all announcements for future reference
     - Any instructors choosing to manually manage a roster must audit their roster at least once a day before the registration deadline.

6. The course must be designed such that a student can successfully complete the course in a **low bandwidth** setting.
   - All video lectures must be hosted via a service that provides variable bit rate options or downloadable videos, that is accessible worldwide.
   - All video lectures must have associated reading material (textbook readings, notes, slides, etc.) for use in case bandwidth limitations prevent access to video lectures.

7. Instructors will set **response time expectations** for:
   - Forum posts and emails within two weekdays but with a suggestion of one
   - Grading turnaround, which must not exceed two weeks from the deadline of the associated assessment, with a strong suggestion one week.

Student Engagement

8. After the registration period ends, the course design should include at least **one assessment per week** that students are required to submit for (at least completion) grading.

9. The instructor will communicate with the entire class roster through the use of a **weekly, regularly scheduled announcement** (roughly the same time of day on the same day of the week, at the latest on Monday, but preferably earlier) in parallel with the release of that week's course content which includes:
   - A brief recap of the previous week
   - The list of the learning objectives for the week
   - A list of topics for the week
   - A list of any newly released assignments
   - A list of any upcoming deadlines

10. Synchronous video conferencing **office hours** should be held on a regular weekly schedule.
    - All instructors are required to hold at least one regularly scheduled hour of office hours per week, with a strong suggestion of at least two hours.
    - Teaching Assistants should hold at least one regularly scheduled hour of office hours per week. Additional TA office hours are recommended but should be based on the needs of individual courses.

11. Throughout the course, there should be a dedicated **discussion forum** that is regularly monitored by the instructor and course staff.

- In addition to periodic monitoring by the entire course staff, the instructor should dedicate one regularly scheduled hour per week for answering questions on this forum as a form of low-bandwidth synchronous office hours.

12. One week before the start of the course, then again on the **first day of class**, instructors will send a welcome announcement (either through email or copied to email) which must include:
    - An attached copy of the syllabus
    - A link to the course LMS or website
    - Directions on how to access all technologies and systems necessary to interact with the course
    - A video lecture reviewing the syllabus and walking through the use of any technologies and systems necessary to interact with the course