UAS Mathematics Programs and Courses Advising Reminders and Updates

UAS Mathematics Program

University of Alaska Southeast

Fall 2018 Convocation

General Advice (See Handout 1)

• ALEKS Placement Exam—Take this seriously, and take full advantage of the ALEKS diagnostics/review/practice features available. Note: Placement exam scores are valid for up to one year.

General Advice (See Handout 1)

- ALEKS Placement Exam—Take this seriously, and take full advantage of the ALEKS diagnostics/review/practice features available. Note: Placement exam scores are valid for up to one year.
- Time Since Last Mathematics Course Taken—If at least one year
 has passed since a student took the prerequisite to a particular
 mathematics course (or the placement exam), the student should be
 encouraged to register for and take (or retake) the ALEKS placement
 exam (for information about the ALEKS placement exam, go to
 https://www.alaska.edu/aleks/).

General Advice (See Handout 1)

- ALEKS Placement Exam—Take this seriously, and take full advantage of the ALEKS diagnostics/review/practice features available. Note: Placement exam scores are valid for up to one year.
- Time Since Last Mathematics Course Taken—If at least one year has passed since a student took the prerequisite to a particular mathematics course (or the placement exam), the student should be encouraged to register for and take (or retake) the ALEKS placement exam (for information about the ALEKS placement exam, go to https://www.alaska.edu/aleks/).
- Timeliness and Persistence—Start mathematics/statistics coursework early, and continue until required courses are successfully completed. Waiting until later is a recipe for frustration.

General Advice (See Handout 1)

- ALEKS Placement Exam—Take this seriously, and take full advantage of the ALEKS diagnostics/review/practice features available. Note: Placement exam scores are valid for up to one year.
- Time Since Last Mathematics Course Taken—If at least one year has passed since a student took the prerequisite to a particular mathematics course (or the placement exam), the student should be encouraged to register for and take (or retake) the ALEKS placement exam (for information about the ALEKS placement exam, go to https://www.alaska.edu/aleks/).
- Timeliness and Persistence—Start mathematics/statistics coursework early, and continue until required courses are successfully completed. Waiting until later is a recipe for frustration.
- Effort and Consistency—For every mathematics/statistics course, put in full and consistent effort and take full advantage of any help resources available.

Choosing Appropriate Courses

 Degree Programs that Do Not Require MATH S151—If MATH S151 is not a prerequisite of any subsequent coursework (or career goal) for a student, the recommended MATH/STAT GER courses are MATH S113 or STAT S107. The prerequisite for these courses is MATH S105 with a C (2.0) or better.

Choosing Appropriate Courses

- Degree Programs that Do Not Require MATH S151—If MATH S151 is not a prerequisite of any subsequent coursework (or career goal) for a student, the recommended MATH/STAT GER courses are MATH S113 or STAT S107. The prerequisite for these courses is MATH S105 with a C (2.0) or better.
- **Degree Programs that Require MATH S151**—This course should be taken if it is required, *either* as a prerequisite course, *or* as a GER, *or* as a possible requirement for future career goals.

Choosing Appropriate Courses

- Degree Programs that Do Not Require MATH S151—If MATH S151 is not a prerequisite of any subsequent coursework (or career goal) for a student, the recommended MATH/STAT GER courses are MATH S113 or STAT S107. The prerequisite for these courses is MATH S105 with a C (2.0) or better.
- **Degree Programs that Require MATH S151**—This course should be taken if it is required, *either* as a prerequisite course, *or* as a GER, *or* as a possible requirement for future career goals.
- STAT S200 (Formerly STAT S273)—Since MATH S151 is no longer the prerequisite, this course may also be used to satisfy the MATH/STAT GER. The current prerequisite is MATH S105 with a B (3.0) or higher. Note: For some majors, STAT S200 might be the preferred MATH/STAT GER.

A small change has been made to the UAS Mathematics Minor to provide more flexibility to students who enjoy mathematics/statistics, and who might wish to supplement their qualifications for their chosen career goal with further (relevant) mathematical/statistical coursework.

A small change has been made to the UAS Mathematics Minor to provide more flexibility to students who enjoy mathematics/statistics, and who might wish to supplement their qualifications for their chosen career goal with further (relevant) mathematical/statistical coursework.

Required Courses (8 credits): Calculus I and II.

A small change has been made to the UAS Mathematics Minor to provide more flexibility to students who enjoy mathematics/statistics, and who might wish to supplement their qualifications for their chosen career goal with further (relevant) mathematical/statistical coursework.

- Required Courses (8 credits): Calculus I and II.
- **Electives (9 credits):** These can be selected from a range of program approved UAS mathematics and statistics courses. Program approved transfer courses may also be used to satisfy these electives.

A small change has been made to the UAS Mathematics Minor to provide more flexibility to students who enjoy mathematics/statistics, and who might wish to supplement their qualifications for their chosen career goal with further (relevant) mathematical/statistical coursework.

- Required Courses (8 credits): Calculus I and II.
- **Electives (9 credits):** These can be selected from a range of program approved UAS mathematics and statistics courses. Program approved transfer courses may also be used to satisfy these electives.

Course choices for the electives can be geared to suit students' planned career paths, including: Business, the Social Sciences, Education, the Applied Sciences, or Applied Statistics.

The UAS Mathematics BS degree now provides *yet more* flexibility to students with an interest in mathematics.

GER Courses (35 credits): These must include a full year (8 credits) of physics—either both PHYS S103 and S104, or both PHYS S211 and S212.

- **GER Courses (35 credits):** These must include a full year (8 credits) of physics—*either* both PHYS S103 and S104, *or* both PHYS S211 and S212.
- Major Courses (43 credits): Includes 34 credits of required courses and 9 credits of advisor approved mathematics/statistics electives.

- **GER Courses (35 credits):** These must include a full year (8 credits) of physics—*either* both PHYS S103 and S104, *or* both PHYS S211 and S212.
- Major Courses (43 credits): Includes 34 credits of required courses and 9 credits of advisor approved mathematics/statistics electives.
- Electives (42 credits): Can be satisfied in a number of ways to support a student's chosen career path. Options include: Graduate preparatory coursework for further studies in mathematics, statistics, or an applied science; preparatory courses for a career in secondary school teaching; minors in one or more discipline—including the humanities, business, the social sciences, and the natural sciences; a double major in mathematics and another UAS BS degree; or courses that lead toward a second UAS degree—BA or BBA.

- **GER Courses (35 credits):** These must include a full year (8 credits) of physics—*either* both PHYS S103 and S104, *or* both PHYS S211 and S212.
- Major Courses (43 credits): Includes 34 credits of required courses and 9 credits of advisor approved mathematics/statistics electives.
- Electives (42 credits): Can be satisfied in a number of ways to support a student's chosen career path. Options include: Graduate preparatory coursework for further studies in mathematics, statistics, or an applied science; preparatory courses for a career in secondary school teaching; minors in one or more discipline—including the humanities, business, the social sciences, and the natural sciences; a double major in mathematics and another UAS BS degree; or courses that lead toward a second UAS degree—BA or BBA. See Handout 2 containing a selection of nine sample programs of study.

What is the IBA?

The University of Alaska Southeast is a member of the IBA, a consortium of U.S. universities that promotes and fosters research and education in biomathematics. The IBA strives to bring together institutions, both academic and non-academic, to build a collaborative academic community in the pursuit of advancing biomathematics, ecology, and related areas for researchers, educators, and active scholars of the mathematical and biological sciences. The IBA operates within the Center for Collaborative Studies in Mathematical Biology at Illinois State University, which proudly sponsors many programs geared towards undergraduate students, as well as assisting both established and up-and-coming scholars in the field of mathematical biology.

IBA Undergraduate Courses

Courses from other IBA institutions are available to all UAS students (having the appropriate prerequisite coursework). Through coordination with the UAS IBA Liaison, these courses may be taken remotely (distance-delivered):

IBA Undergraduate Courses

Courses from other IBA institutions are available to all UAS students (having the appropriate prerequisite coursework). Through coordination with the UAS IBA Liaison, these courses may be taken remotely (distance-delivered):

As non-credit (sit-in) courses at no cost; or

IBA Undergraduate Courses

Courses from *other IBA institutions* are available to all UAS students (having the appropriate prerequisite coursework). Through coordination with the UAS IBA Liaison, these courses may be taken remotely (distance-delivered):

- As non-credit (sit-in) courses at no cost; or
- For UAS credit by registering for a specially designated co-sponsored UAS MATH or STAT course and successfully completing the required coursework. Since such courses are co-sponsored by the IBA, tuition is covered by the IBA and the student is responsible only for UAS registration and other relevant processing fees.

IBA Undergraduate Courses

Courses from other IBA institutions are available to all UAS students (having the appropriate prerequisite coursework). Through coordination with the UAS IBA Liaison, these courses may be taken remotely (distance-delivered):

- As non-credit (sit-in) courses at no cost; or
- For UAS credit by registering for a specially designated co-sponsored UAS MATH or STAT course and successfully completing the required coursework. Since such courses are co-sponsored by the IBA, tuition is covered by the IBA and the student is responsible only for UAS registration and other relevant processing fees.

IBA undergraduate courses taken for UAS credit *may* count toward a UAS Mathematics Minor (with Program approval), or a UAS Mathematics BS degree (with advisor approval).

IBA Graduate Certificates in Biomathematics

Through consultations with and recommendation from the UAS IBA graduate advisor, these programs are available to all UAS students (having the appropriate prerequisite coursework). Three options are available:

IBA Graduate Certificates in Biomathematics

Through consultations with and recommendation from the UAS IBA graduate advisor, these programs are available to all UAS students (having the appropriate prerequisite coursework). Three options are available:

 Online Certificate of Competency in Mathematical Biology, a self-paced, online program that provides additional qualifications for a career in industry (involving, applications of mathematical biology).

IBA Graduate Certificates in Biomathematics

Through consultations with and recommendation from the UAS IBA graduate advisor, these programs are available to all UAS students (having the appropriate prerequisite coursework). Three options are available:

- Online Certificate of Competency in Mathematical Biology, a self-paced, online program that provides additional qualifications for a career in industry (involving, applications of mathematical biology).
- Graduate Certificate in Mathematical Biology, designed to serve as a bridge between undergraduate and graduate studies. It includes some online coursework and some traditional coursework under an IBA member institution's graduate program.

IBA Graduate Certificates in Biomathematics

Through consultations with and recommendation from the UAS IBA graduate advisor, these programs are available to all UAS students (having the appropriate prerequisite coursework). Three options are available:

- Online Certificate of Competency in Mathematical Biology, a self-paced, online program that provides additional qualifications for a career in industry (involving, applications of mathematical biology).
- Graduate Certificate in Mathematical Biology, designed to serve as a bridge between undergraduate and graduate studies. It includes some online coursework and some traditional coursework under an IBA member institution's graduate program.
- Accelerated Graduate Certificate in Mathematical Biology, intended for those planning to pursue graduate studies in mathematical biology. This certificate is designed in a manner that makes it possible to earn a master's degree in Biomathematics at an IBA member institution with only one additional year of graduate study.

Questions?

Questions?

For future reference,

 Answers to most general questions can be found on the UAS Mathematics Program website at

http://www.uas.alaska.edu/arts sciences/naturalsciences/math/

• Other Mathematics Program related questions: Contact Brian Blitz at bgblitz@alaska.edu or (907) 796-6506.

• For IBA or Biomathematics related questions: Contact Chris Hay-Jahans at cnhayjahans@alaska.edu or (907) 796-6408.