

Task Force: Student Success

Committee Name: Gateway Courses

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Summary of Recommendations

Recommendation re: Gateway Course List

A UNC standing committee within academic affairs should be charged with refining and updating a list of gateway courses using the criteria listed below.

- 1) The subcommittee prepared a sample list of gateway courses (see Excel spreadsheet uploaded into Sharepoint although note that that list includes dual enrollment students) using the DWFI dashboard. The dashboard can filter the list to not include dual enrollment students.
- 2) The criteria used and recommended for gateway course identification are:
 - a. Inclusion in the Liberal Arts Core (LAC), and/or
 - b. 100/200 level w/high enrollments, and/or
 - c. English or math and/or,
 - d. high DWFI (threshold of 20% or higher) AND
 - e. select courses on the bubble of 20% DWFI with high enrollments.

A. Recommendations re: Gateway Course Instruction

- 1) ***For multi-section gateway courses, establish clear learning outcomes, a common course syllabus, and a set of shared materials and assessments across course sections to create a common standard for student achievement.***
 - a. Support collaboration and sharing of course resources among all faculty and instructors teaching the gateway course.
 - b. Familiarize all faculty and instructors with the common approach and resources in a gateway course.
 - c. Multi-section gateway courses will have a common course syllabus.
- 2) ***Balance traditional lecture instruction with active learning pedagogies (high impact practice or HIP) to promote student engagement and mastery of course competencies.***
 - a. Provide faculty and instructors with resources and professional development in active learning pedagogies through workshops and other professional development.
 - b. Encourage the use of and invest in support for interactive software systems (like clickers and plickers) for use in high-enrolled classrooms.
- 3) ***Incorporate equity-minded practices in gateway courses to address student achievement gaps.***
 - a. Provide faculty and instructors with resources and professional development in equity-minded practices.
 - b. Provide faculty and instructors with disaggregated demographic data cross-referenced with course data to investigate achievement gaps. (See data recommendations below).

- 4) ***Incorporate early and frequent course assessments (some low stakes) to provide students with feedback about how they are doing in the class and where they need to adjust their learning strategies to master core concepts.***
 - a. Faculty and instructors should follow-up with students who are struggling through individual emails/meetings as appropriate and through classroom responses.
 - b. Faculty and instructors should connect students with campus resources (tutoring) to help students master core concepts.
 - c. Faculty and instructors should post feedback and results of assessments to their Canvas course shell.
 - d. Faculty and instructors should post early alert progress reports through the Student Success Collaborative (SSC) as requested.
- 5) ***Investigate the impact of class attendance on student mastery of core concepts and consider a campus-wide attendance policy for gateway courses.***
 - a. Plan for attendance tracking on a larger scale and integrate it with an Early Warning system.
- 6) ***Investigate the effectiveness of course pre-requisites and use student performance in pre-requisites to target interventions.***
 - a. Programs should be checking the success of pre-requisite requirements for gateway courses (Insight Report ACD151) and use students' performance in pre-requisites for identifying at risk students and appropriate interventions.

B. Recommendations re: UNC learning assistance programs (LAPs)

- 1) ***Establish a clear campus referral systems to connect students with existing UNC learning assistance programs:***
 - a. Tutorial Services & Supplemental Instruction: UNC's centralized, multi-disciplinary and nationally certified academic support program.
 - b. Discipline-specific resources:
 - i. Math Lab
 - ii. Writing Center
 - c. Specialty programs for target populations:
 - i. Student Athlete Academic Success Center (SAASC)
 - ii. Center for Human Enrichment (SSS Federal grant program for 200 first-generation students)
 - iii. Learning through engaging in authentic practices program.
- 2) ***Establish student success outcomes within LAPs to monitor impact on student achievement in gateway courses.***
 - a. Provide LAP administrators with resources and professional development in program assessment through workshops.
 - b. LAP administrators should provide annual data-driven reports demonstrating program usage and impact on students in gateway courses.

3) Scale up academic support through existing LAPs to serve all gateway courses.

- a. Expand Supplemental Instruction (SI) offerings to improve service to gateway courses where student demand for academic support outpaces current supply. (SI is a small part of UNC's Tutorial Services Program with tremendous potential to reach greater numbers of students in peer-led collaborative learning environments. SI currently supports 2 sections of BIO 110; 2 sections of CHEM 111; 3 sections of CHEM 103; and 2 sections of FND 250. All are gateway courses.)
 - i. Provide SI in additional sections of BIO 110 and CHEM 111
 - ii. Scale up SI to include additional gateway courses such as (all listed are above a 20% DFWI rate):
 1. AST 109 (The Cosmos – LAC Area 6)
 2. BIO 245 (Intro to Anatomy & Physiology)
 3. BIO 246 (Advanced Anatomy & Physiology)
 4. CHEM 281 (Fundamentals of Biochemistry – LAC Area 6)
 5. ECON 203 (Microeconomics – LAC Area 5)
 6. ECON 205 (Macroeconomics – LAC Area 5)
 7. ENST 100 (Intro to Environmental Studies – LAC Area 6)
 8. HIST 100 (American History – LAC Area 4)
 9. HIST 120/121 (Western Civilization – LAC Area 4)
 - iii. Collaborate SI implementation with supporting centers (i.e. the Writing Center).
- b. Implement a system of identifying SI sections, and place the responsibility of staffing them appropriately on chairs/directors.
- c. Re-envision and re-brand the Writing Center to improve student outcomes in gateway courses re: writing competencies and to support a foundation for Writing in the Disciplines (WID).
 - i. Engage UNC constituents re: core writing competencies
 - ii. Diversify writing center tutor staff (i.e. using undergraduate student tutors and incorporating faculty from different academic areas).
 - iii. Incorporate greater flexibility in delivering writing support
 - iv. Collaborate undergraduate writing center tutor training with Tutorial Services.
- d. Invest in program infrastructure and personnel in LAPs
 - i. Conduct needs assessment to allocate (and/or reallocate) funds where LAP needs are the greatest
 - ii. Consult with deans, chairs, and directors in budgetary conversations to support buy-in.

C. Recommendations re: data & technology

- 1) Make available to chairs/directors, faculty and instructors Insight Reports CRS090 for tracking equity achievement gaps in courses, and ACD151 for tracking pre-requisite chains' success rates.
- 2) Expand campus use of SSC early warning progress reports for gateway courses
- 3) Invest in support for interactive software to support active learning in gateway courses.
- 4) Develop database/software and workflows to support LAP evaluation and assessment

D. Recommendations re: program efficiencies & cost savings through campus collaborations and partnerships:

- 1) Establish channels for collaboration and regular communication among LAP administrators to avoid duplication of services, to capitalize on economies of scale, and to create appropriate referral systems.
- 2) Create a collaborative and sustainable foundation for Writing in the Disciplines.
 - a. Part of Department of English overhaul in the area of rhetoric and composition
 - b. English chair and writing program administrate will consult with health, science, business deans, chairs, directors, and faculty re: new WID composition course and current SCI 291 (Scientific Writing) offerings
- 3) Encourage campus partnerships in support of student learning in gateway courses.

Examples include:

- a. Tutorial Services & Residential Education Partnership – Currently providing tutorial support to students participating in the following Residence Learning Communities: Pre-nursing, Biology, Seeking-Business, Elementary Education, Cumbres
- b. STEM (Biology) + Tutorial Services + Cultural Centers – This is a potential partnership that, if funded (via grant), will provide targeted tutoring support in gateway courses for students in select Cultural Centers.
- c. Integrate gateway courses with learning communities initiatives (see Learning Communities subcommittee of the Student Success Taskforce).

Detailed Discussion of Recommendations

1. In what ways do these recommendations align with the guiding principles for all task force committees?

2. What resources would be saved or required to implement and sustain these recommendations? Remember that resources include human, financial, technology, and facilities.

Many of the recommendations can be implemented making use of existing resources: for example, Insight reports that have already been created for pre-requisite sequences and equity concerns that can be shipped to a larger audience for no cost.

An overarching recommendation is to improve program efficiencies and cost savings through collaborations and partnerships across campus. Specifically, in the streamlining of Learning Assistance Programs our recommendation is use collaborations to eliminate or make sense of overlapping and redundant efforts throughout the campus.

However, there are recommendations from our group that will require investment. The largest such is that any expansion of the Supplemental Instruction program or of the number of courses served by Tutoring Services will require an investment of resources to implement. Other recommendations are predicated on the availability of technology and personnel investment to implement: implementing a broad Early Warning System for gateway courses, and tracking student attendance. Recommendations for improved active learning in gateway courses will require investment in professional development for instructors.

3. How would implementation of these recommendations improve existing programs and services?

Research indicates that for large multi-section courses, student success is improved with the establishment of common course designs (i.e. common syllabi and assessment activities). This also addresses a frequent concern raised by students regarding their gateway and LAC courses. Active pedagogies have been shown to promote student engagement and mastery. Equity-minded practices will address achievement gaps and lead to increased student success in populations that are disproportionality impacted by current practices. Frequent feedback encourages student engagement, addresses needs of first-generation college students, and will be necessary for an effective roll-out of an expanded Early Warning System. A large-scale study is needed to understand the impact of attendance on student success at UNC. A number of the identified gateway courses (particularly in mathematics and science) are part of chains of pre-requisite courses (or themselves have pre-requisites), and programs need to ensure that these pre-requisites are functioning as intended (and are necessary).

Improvements are needed across campus to connect students in need with Learning Assistance Programs (LAP) aimed at their courses, addressing this issue will impact student success in the gateway courses. Additional effort is needed to assess the impact of campus LAPs and make adjustments to their interventions. Currently LAPs impact only a fraction of the identified gateway courses and scale up of successful interventions is warranted, this would be an investment in programs that have been shown to be effective at UNC.

Expanded availability of data for the campus community, especially chairs/directors is needed. We are reminded of the quip “You measure what matters.” Early Warning Systems have been effectively implemented at large scale at other universities, and at UNC Early Warning is a highly effective component of the Student Athlete Success support system.

4. What services or programs could be phased out because they would no longer be needed or because implementation of the recommendations would represent a more effective and efficient use of university resources?

The proposed increased collaboration and regular communication among LAP programs may identify that some programs are duplicating other efforts and can be eliminated, folded together, or have their targeted populations and services adjusted. An established system for forging and evaluating such partnerships will impact the efficiency of externally funded programs in the future.

5. Who would be primarily responsible for implementing these recommendations and have those individuals/units been consulted?

The responsible individuals and units have been identified in the recommendations. A number of existing LAP programs were represented on the committee. Consultations with other LAP programs is part of our recommendation.

A number of the recommendations will rely on chairs/directors to implement and a broader discussion of the recommendations with chairs/directors from across campus is warranted.

6. Action Plan – complete the table on the following page outlining the concrete actions required for implementing your committee’s recommendations, performance metrics (how we would know UNC is making progress and/or achieving success), who would be responsible for implementation, and whether implementation would begin in the short or long term.

Action Plan (add lines as needed)

Recommendation A: Gateway Course List		
Performance Metric(s): A standing committee within AA has been charged with refining and updating a list of gateway courses for targeting by LAPs and other interventions.		
Action	Responsibility	Short or Long Term
Standing Committee has been identified and charged.	Provost	Short
Recommendation B.1). Establish clear learning outcomes and a set of shared materials and assessments across course sections to create a common standard for student achievement.		
Performance Metric(s): Number of multi-section gateway courses with common course outcomes, syllabus, materials, and assessments.		
Action	Responsibility	Short or Long Term
Support faculty and instructor collaboration in developing common resources.	Provost – Dean – Chair/Director	Short and Long Term
Familiarize faculty and instructors with the common course design.	Provost – Dean – Chair/Director	Short and Long Term
Multi-section gateway courses will have a common course syllabus.	Provost – Dean – Chair/Director	Short and Long Term
Recommendation B.2). Balance traditional lecture instruction with active learning pedagogies to promot student engagement and mastery of course competencies.		
Performance Metric(s): Number of gateway courses using active learning strategies and extensiveness of those strategies.		
Action	Responsibility	Short or Long Term
Provide faculty and instructors with resources and professional development in active learning pedagogies through workshops and other professional development.	Provost – Dean – Chair/Director	Implemented in step with B.1)
Encourage the use of and invest in support for interactive software systems (like clickers and plickers) for use in high-enrolled classes.	Provost – Dean – Chair/Director	Implemented in step with B.1)
Recommendation B.3). Incorporate equity-minded practices in gateway courses to address student achievement gaps.		
Performance Metric(s): Number of gateway courses whose equity metrics are being tracked by the responsible programs.		
Action	Responsibility	Short or Long Term
Provide faculty and instructors with resources and professional development in equity-minded practices.	Provost – Dean – Chair/Director	Long Term
Provide faculty and instructors with disaggregated demographic data cross-references with course data to investigate achievement gaps. (Insight Report CRS090)	Registrar/Institutional Research	Immediate

Recommendation B.4). Incorporate early and frequent course assessments (some low stakes) to provide student with feedback about how they are doing in the class and where they need to adjust their learning strategies to master core concepts.		
Performance Metric(s): Number of gateway courses incorporating frequent assessments beyond a few high stake tests. Number of students included in an Early Warning System.		
Action	Responsibility	Short or Long Term
Faculty and instructors should follow-up with students who are struggling through individual emails/meetings as appropriate and through classroom responses.	Chair/Director – Faculty	Short (urgent) Term
Faculty and instructors should connect students with campus resources (LAPs) to help students master core concepts.	Chair/Director – Faculty	Short when LAP is available; otherwise Long Term.
Faculty and instructors should post feedback and results of assessments to their Canvas course shell.	Chair/Director – Faculty	Short Term.
Faculty and instructors should post early alert progress reports through Student Success Collaborative (SSC) as request.	Chair/Director – Faculty	Short when there exist referral structures for student populations; otherwise Long Term as Early Warning is expanded.
Recommendation B.5). Investigate the impact of class attendance on student mastery of core concepts and consider a campus-wide attendance policy for gateway courses.		
Performance Metric(s): Number of gateway courses that are tracking student attendance in a systematic way.		
Action	Responsibility	Short or Long Term
Plan for attendance tracking on a larger scale and integrate it with an Early Warning System.	Unclear. Support is needed for implementation.	Long Term.
Recommendation B.6). Investigate the effectiveness of course pre-requisites and use student performance in pre-requisites to target interventions.		
Performance Metric(s): Number of pre-requisite chains including gateway courses whose programs are tracking success.		
Action	Responsibility	Short or Long Term
Programs are tracking the success of pre-requisite requirements for gateway courses. (Insight Report ACD151).	Registrar, Chairs/Directors – Faculty	Short Term

Programs are using students' performance in pre-requisites to identify appropriate interventions.	Chairs/Directors – Faculty	Short or Long Term.
Recommendation C.1). Establish a clear campus referral systems to connect students with existing UNC learning assistance programs.		
Performance Metric(s): Have referral systems been established for LAPs.		
Action	Responsibility	Short or Long Term
Develop promotional materials and marketing strategies.	LAP Administrators, Faculty, Advisors, Counselors.	Medium Term (requires resources)
Recommendation C.2). Establish student success outcomes within LAPs to monitor impact on student achievement in gateway courses.		
Performance Metric(s): Have performance metrics been established.		
Action	Responsibility	Short or Long Term
Provide LAP administrators with resources and professional development in program assessment through workshops.	Provost – (Dean) – (Chair/Director)	Medium/Long Term.
LAP administrators should provide annual data-driven reports demonstrating program usage and impact on students in gateway courses.	LAP Administrators	Short Term
Recommendation C.3). Scale up academic support through existing LAPs to serve all gateway courses.		
Performance Metric(s): Number of gateway courses, sections, and students served by LAPs. (see Recommendation C.2))		
Action	Responsibility	Short or Long Term
Expand Supplemental Instruction (SI) to serve additional gateway courses.	(unclear)	Long Term (resources needed).
Implement a system of identifying SI sections and placing the responsibility on chairs/directors to see that they are staffed appropriately.	Registrar; chairs/directors.	Short Term.
Re-envision and re-brand the Writing Center.	English Chair; Writing Center Director; Faculty in Writing Intensive Courses.	Short Term.
Invest in program infrastructure and personnel in LAPs.	Provost.	Long Term (resources needed)
Recommendation D. Data and Technology		
Performance Metric(s): Implementation of the action items. Student Success in Gateway Courses.		
Action	Responsibility	Short or Long Term

Make available to chairs/directors, faculty and instructors Insight Reports (CRS090 and ACD151).	Registrar / Institutional Reporting	Short Term.
Expand campus use of SSC early warning progress reports for gateway courses.	(unclear)	Long Term (resources needed)
Invest in support for interactive software to support active learning in gateway courses.	(unclear)	Long Term (resources needed in some cases)
Develop database/software and workflows to support LAP evaluation and assessment.	(unclear)	Long Term (resources needed)
Recommendation E. Program Efficiencies and cost savings through campus collaborations and partnerships.		
Performance Metric(s): Number and frequency of campus collaborations and partnerships with LAPs. Assessment by a committee of the extent of duplicate effort remaining.		
Action	Responsibility	Short or Long Term
Establish channels for collaboration and regular communication among LAP administrators.	Tutoring Services and other LAPs	Immediate Term.
Create a collaborative and sustainable foundation for Writing in the Disciplines.	Department of English. Deans, Chairs/Directors and Faculty from across campus.	Short and Medium to Long Term.
Encourage campus partnerships in support of student learning in gateway courses.	LAPs, Deans, Chairs/Directors, Faculty and Instructors from across campus.	Short Term.

2018-2019 Student Success Taskforce.

**Gateway Course Student Success Committee
Report.**



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Gateway Courses

Recommendation A.

A UNC standing committee within academic affairs should be charged with refining and updating a list of gateway courses using the criteria listed below.

- 1) The subcommittee prepared a sample list of gateway courses using the DWFI dashboard.
- 2) The criteria used and recommended for gateway course identification are:
 - a. Inclusion in the Liberal Arts Core (LAC), and/or
 - b. 100/200 level with high enrollments, and/or
 - c. English or math, and/or
 - d. High DWFI (threshold of 20%) AND
 - e. Select courses on the bubble of 20% DWFI with high enrollments.

Responsibility: Provost

Timeline: Immediate

Gateway Course Instruction

Recommendation B.1)

Establish clear learning outcomes and a set of shared materials and assessments across course sections to create a common standard for student achievement.

Recommendation B.2)

Balance traditional lecture instruction with active learning pedagogies to promote student engagement and mastery of course competencies.

Responsibility: Provost → Dean → Chair/Director → Faculty and Instructors.

Timeline: Short and Long Term as support is available.

Gateway Course Instruction

Recommendation B.3)

Incorporate equity-minded practices in gateway courses to address student achievement gaps.

Responsibility: Provost → Dean → Chair/Director → Faculty and Instructors.

Timeline: Long Term

Recommendation B.4)

Incorporate early and frequent course assessments (some low stakes) to provide students with feedback about how they are doing in the class and where they need to adjust their learning strategies to master core concepts.

Responsibility: Registrar and Institutional Research

Timeline: Immediate

Gateway Course Instruction

Recommendation B.5)

Investigate the impact of class attendance on student mastery of core concepts and consider a campus-wide attendance policy for gateway courses.

Responsibility:

Timeline: Long Term

Recommendation B.6)

Investigate the effectiveness of course pre-requisites and use student performance in pre-requisites to target interventions.

Responsibility: Registrar and Institutional Research; Chairs/Directors -> Faculty.

Timeline: Immediate and Long Term.

UNC Learning Assistance Programs

Recommendation C.1)

Establish a clear campus referral system to connect students with existing UNC learning assistance programs (LAP).

Responsibility: LAP Administrators, Faculty, Advisors, Counselors.

Timeline: Medium Term.

Recommendation C.2)

Establish student success outcomes within LAPs to monitor impact on student achievement in gateway courses.

Responsibility: Provost (Dean, Chairs/Directors). LAP Administrators.

Timeline: Medium/Long Term. Short Term.

UNC Learning Assistance Programs

Recommendation C.3)

Scale up academic support through existing LAPs to serve all gateway courses.

- a. Expand Supplemental Instruction (SI) to more gateway courses.*
- b. Implement a system of identifying SI sections and place responsibility of staffing them on chairs/directors.*
- c. Re-envision and re-brand the Writing Center to improve student outcomes in gateway courses. (Writing in the Disciplines).*
- d. Invest in program infrastructure and personnel in LAPs.*

Responsibility: a. ??? b. Registrar, chairs/directors. c. English and writing intensive gateway course chairs/directors and faculty. d. Provost.

Timeline: Long Term and Short Term items.

Recommendation D.1)

Make available to chairs/directors, faculty and instructors Insight Reports CRS090 for tracking equity achievement gaps in courses, and ACD151 for tracking pre-requisite chains' success rates.

Responsibility: Registrar and Institutional Reporting.

Timeline: Short Term.

Recommendation D.2)

Expand campus use of SSC early warning progress reports for gateway courses.

Recommendation D.3)

Invest in support for interactive software to support active learning in gateway courses.

Recommendation D.4)

Develop database/software and workflows to support LAP evaluation and assessment.

Program efficiencies and cost savings.

Recommendation E.1)

Establish channels for collaboration and regular communication among LAP administrators to avoid duplication of services, capitalize on economies of scale, and create appropriate referral systems.

Recommendation E.2)

Create a collaborative and sustainable foundation for Writing in the Disciplines.

Recommendation E.3)

Encourage campus partnerships in support of student learning in gateway courses.

**Potential Gateway Courses
Using Five Yr Summary DFWI Report**

Course	DFWI Rate	Number of Sections	Avg Section Enrollment	LAC	Tutoring (F2018)
ART 181	29%	28	33	Yes	Yes
ART 182	23%	31	15	Yes	Yes
AST 109	24%	12	102	Yes	No
BAAC 220	25%	48	31	No	Yes
BAFN 240	21%	16	24	Yes	No
BIO 100	31%	22	64	Yes	Yes
BIO 110	28%	36	111	Yes	Yes
BIO 111	29%	10	91	No	Yes
BIO 210	22%	13	67	No	Yes
BIO 245	30%	22	110	No	Yes
BIO 246	23%	15	66	No	Yes
CHEM 101	29%	10	52	Yes	Yes
CHEM 103	37%	12	61	No	Yes
CHEM 111	38%	47	76	Yes	Yes
CHEM 112	30%	20	60	No	Yes
CHEM 281	26%	27	57	Yes	Yes
CRJ 110	19%	26	62	No	Yes
CS 101	27%	16	30	Yes	No
ECON 203	22%	46	52	Yes	Yes
ECON 205	23%	56	51	Yes	Yes
ENG 122	20%	404	22	Yes	No
ENG 123	18%	278	22	Yes	No
ENG 225	18%	27	19	Yes	No
ENST 100	21%	13	88	Yes	No
FND 250	16%	54	62	Yes	Yes
GEOG 100	17%	78	43	Yes	No
GEOG 110	21%	18	49	Yes	Yes
GEOG 200	22%	17	32	Yes	No
HIST 100	20%	108	38	Yes	Yes
HIST 101	18%	68	43	Yes	Yes
HIST 120	22%	19	58	Yes	No
MATH 120	24%	64	34	Yes	Yes
MATH 124	20%	127	24	Yes	Yes

**Potential Gateway Courses
Using Five Yr Summary DFWI Report**

MATH 131	34%	51	26	Yes	Yes
MATH 132	30%	22	24	Yes	Yes
MATH 171	21%	15	30	Yes	Yes
MATH 176	19%	37	33	No	Yes
MATH 181	19%	70	26	Yes	Yes
MET 110	19%	16	42	Yes	No
MUS 247	20%	14	43	Yes	No
MUS 296	19%	14	31	Yes	No
PHIL 100	15%	66	40	Yes	No
PHYS 220	16%	11	70	Yes	Yes
PHYS 240	33%	5	67	Yes	Yes
PSCI 100	17%	37	39	Yes	No
PSY 120	21%	79	64	Yes	No
PSY 200	22%	45	23	No	Yes
PSY 230	15%	84	49	Yes	Yes
SCI 291	16%	69	20	Yes	No
SES 220	20%	27	53	Yes	Yes
SOC 100	16%	71	47	Yes	No
SOC 120	19%	27	35	Yes	No
SOC 221	23%	37	38	Yes	No
STAT 150	20%	177	35	Yes	Yes