## UNIVERSITY OF NORTHERN COLORADO

| Meeting Date:                           | February 10, 2023               |  |
|---|---------------------------------|--|
|   |                                 | ☐ Discussion Item ☐ Information Item                                 |
| Name of Item:                           | New Undergraduate (<br>Catalog  | ertificate Program in Theatre Design & Technology for AY 2023-2024   |
| Responsible St                          | aff Member: Kirsten             | Fleming, Provost & EVP for Academic Affairs                          |
| Summary of<br>Creation of an u<br>Arts: |                                 | in the School of Theater and Dance, College of Performing and Visual |
| • Theatre                               | Design and Technology           | Certificate  |
| Pocommondos                             | I Action by BOT:                |  |
| Recommended                             | ACTION BY BOT.                  | ··   |
| Change to Boa                           | rd Policy Manual:               | ☐ Approval ☐ No Action Needed  |
|   |                                 | If yes, Section:   |
| Administrativ                           | ve Recommendation               |  |
| Signature o                             | of Vice President  of President |  |



### Board of Trustees - Action Item New Certificate Program in Theater Design and Technology for AY 2023/2024

**Summary of Change:** Creation of an undergraduate certificate in the School of Theater and Dance, College of Performing and Visual Arts:

Theatre Design and Technology Certificate

#### **Background:**

The School of Theatre Arts & Dance (STAD) currently offers Bachelor of Fine Arts (B.F.A.) degrees in Acting, Musical Theatre and Theatre Design/Technology, as well as a Theatre Arts B.A. with two concentrations: Theatre Studies and K-12 Drama Teaching Licensure. The proposed new certificate repackages 22 credits of existing coursework to provide students with foundational knowledge in the field of theatrical design and technology while also providing the opportunity for advanced study in specific disciplines through chosen certificate electives.

Academic Affairs has notified HLC of our intent to offer this program and received assurance that no further HLC approval is required. The program has been fully approved through the curriculum process as outlined in University Regulations Title 3, Article 3, Part 5. It now requires approval by the Board of Trustees prior to notification of the CDHE. We are recommending this certificate be approved for Academic Year 2023/2024.

Rationale: B.F.A. degrees within the School of Theatre Arts & Design (STAD) are highly competitive, and the unit relies heavily on undergraduate students to assist with staging performances throughout the year. Majors in the Acting, Musical Theatre and Theatre Studies programs have specifically asked the unit to create this certificate in order to formally recognize the additional knowledge and skills gained from these backstage production experiences. In addition to responding to that request, the certificate can be completed by students pursuing majors in any of the other colleges, affording them opportunities to participate in the production process of PVA performances, and broadening their sense of belonging and community beyond their major at UNC. The unit receives inquiries from several students each year who are not PVA majors but have some high school theatre experience and are interested in pursuing a minor or certificate. This certificate will serve them well.

The courses required for the 22-credit certificate are a subset of those required for the Design/Technology B.F.A. For students who enter the full Design/Technology B.F.A but later decide to switch majors (approximately 1-2 per year), the certificate will enable them to still earn a credential in this area of interest.

Most importantly, this certificate will assist Theatre Education students seeking employment in K-12 settings: a credential in the area of Design and Technology in addition to their education licensure will make them more desirable candidates for both teaching and producing theatre. It will also serve any student who may need to create high quality media as part of marketing or outreach strategies in a wide range of careers.

Enrollment Projections: Long-term targeted enrollment for the Theater Design and Technology certificated is based on the available capacity in required coursework. There are currently 40 enrolled students in the Design/Technology B.F.A, spread fairly evenly across four years. The certificate coursework could also be spread over four years. Most design/tech coursework is offered on a two-year rotation. The smallest courses are capped at 20-25 students, and are currently enrolling at about 50% (or 10-12 students/course). Hence the unit can accept up to 100 students across both the B.F.A and the certificate - or 60 students in the certificate alone -- without needing additional resources.

**Budget Impacts:** The immediate impact of offering a Theatre Design and Technology certificate will be to fill existing capacity in each of the classes. This will lead to more efficient resource utilization. Since all courses are currently being offered, there will be no negative impact if target enrollments are not achieved (new enrollments can only increase revenues produced by STAD). The program is not expected to attract new students to UNC; rather, it offers an attractive way for students to use their university wide elective credits within other majors to achieve an additional credential. Specifically, it allows students who are not majoring in Theatre or Dance to use credits that would otherwise be applied to university wide electives.

The attached excel spreadsheet provides a more detailed analysis of revenues generated by the program at several possible enrollment points up to 60 students that could presently be enrolled without the need to hire new faculty. Prior to that point, there are no additional expenses to deliver the program (although some of the courses have specialized supplies or equipment needs, those are covered by course fees). The model assumes that 50% of students in the certificate in any given year are enrolled in other PVA majors, in which case there is an overlap of 9 credit hours across their major and the certificate, so the program only generates 13 additional credit hours per student; for the other 50% of students all 22 credits hours/student are assumed to be new.

The lump sum model included with other curriculum proposals is not used since the program is not expected to bring new students to UNC. However, the differential tuition on PVA coursework would increase UNC revenues collected from students in this certificate who would have otherwise chosen university wide elective credits or credits in other UNC minors or certificates that do not carry differential tuition. While it is possible that growth in this program will reduce revenues generated by other programs, those enrollment patterns can be monitored over time with corresponding adjustments to instructional spending in those units.

| Tuition model   | Year 1              | Year 2           | Year 3            | Year 4           | Year 5             | Year 6           |  |
|---|---------------------|------------------|-------------------|------------------|--------------------|------------------|--|
| New Revenue   |                     |                  |                   |                  |                    |                  |  |
| Students enrolled in program  | 10                  | 20               | 30                | 40               | 50                 | 60               |  |
| Program SCH for PVA majors (13 credits/student/year)  | 65                  | 130              | 195               | 260              | 325                | 390              |  |
| Program SCH for non PVA majors (22 credits/student/year)  | 110                 | 220              | 330               | 440              | 550                | 660              |  |
| Tution generated by STAD (Program SCH *471)   | \$82,425            | \$164,850        | \$247,275         | \$329,700        | \$412,125          | \$494,550        |  |
| New UNC tution (Program SCH * PVA differential tuition )  | \$6,300             | \$12,600         | \$18,900          | \$25,200         | \$31,500           | \$37,800         |  |
|   |                     |                  |                   |                  |                    |                  |  |
| New expenses  |                     |                  |                   |                  |                    |                  |  |
| None all courses are part of exsiting BFA   |                     |                  |                   |                  |                    |                  |  |
| Total costs   | \$0                 | \$0              | \$0               | \$0              | \$0                | \$0              |  |
| P/I for STAD (row 5-row 11)   | \$87 /75            | ¢16/ 850         | ¢2/7 775          | \$329 700        | ¢/112 125          | ¢/10/1 550       |  |
| D/I for INIC (50 6 50 11)   | \$6,000             | \$17,000         | \$10,000          | ממר זכל          | \$34 E00           | 000 FC3          |  |
|   |                     |                  |                   |                  |                    |                  |  |
|   |                     |                  |                   |                  |                    |                  |  |
| Assumptions:  |                     |                  |                   |                  |                    |                  |  |
| 1) All program students are existing enrollments at UNC.  |                     |                  |                   |                  |                    |                  |  |
| 2) 50% of the students in the certificate are in other PVA majors with 9 credits of coursework double counting for the major and            | ith 9 credits of co | ırsework double  | e counting for th |                  | ertificate. (hence | they only take : | the certificate. (hence they only take 13 additional credits). |
| 3) increases in faculty salaries (promotions, raises, etc.) offset by increases in tuition rates; annual increases not built into formulas. | ncreases in tuition | rates; annual in | creases not buil  | t into formulas. |                    |                  |  |
| 4) student fees (not included in revenues) will offset other general campus costs   | campus costs        |                  |                   |                  |                    |                  |  |
| 5) no discounting on tuition  |                     |                  |                   |                  |                    |                  |  |
| 6) Only the PVA differential tuition rate represents "new" revenues generated by the program for UNC  | s generated by the  | program for UI   | NC.               |                  |                    |                  |  |
|   |                     |                  |                   |                  |                    |                  |  |
| On this model   |                     |                  |                   |                  |                    |                  |  |
| - The program is entirely revenue positive for PVA and UNC, though the effects on UNC's overall budget are minimal.                         | gh the effects on I | JNC's overall bu | ıdget are minimı  | gl.              |                    |                  |  |

### UNIVERSITY OF NORTHERN COLORADO

| Meeting Date:  | February 10, 2023                                     |   |  |
|----------------|---|---|--|
|                |   | ☐ Discussion Item ☐ Information Item                                |  |
| Name of Item:  | New Undergraduate Ce<br>2023-2024 Catalog             | tificate Programs in Geography, GIS, & Sustainability for the AY    |  |
| Responsible St | aff Member: Kirsten F                                 | eming, Provost & EVP for Academic Affairs                           |  |
|                |   | ates in the Department of Geography, GIS, & Sustainability (DoGGS), |  |
|                | Operations and Spatial Ana<br>Cartography Certificate | ytics Certificate   |  |
|                |   |   |  |
| Recommended    | d Action by BOT:                                      |   |  |
| Change to Boa  | ard Policy Manual:                                    | Approval No Action Needed   |  |
|                |   |   |  |
|                |   | If yes, Section:  |  |
| Administrati   | ve Recommendation                                     | (Motion):   |  |
| Signature o    | of Vice President  of President                       | 1/31/2023<br>Date<br>02/02/2023<br>Date                             |  |



## Board of Trustees - Action Item New Undergraduate Certificate Programs in Geography, GIS, & Sustainability for the AY 2023/24 Catalog

**Summary of Change:** Creation of two new undergraduate certificates in the Department of Geography, GIS, & Sustainability (DoGGS), College of Humanities and Social Sciences:

- Drone Operations and Spatial Analytics Certificate
- GIS & Cartography Certificate

**Background:** The Department of Geography, GIS, & Sustainability (DoGGS) currently offers a Geography B.A. as well as an Environmental Studies B.A. The proposed new certificates repackage existing undergraduate coursework to offer technical education in GIS, cartography and drones technologies to a wider array of students. As part of this proposal, they are deactivating their Geography Education Graduate Certificate due to insufficient enrollments to support graduate level coursework.

Academic Affairs has notified HLC of our intent to close the graduate certificate and offer these two new undergraduate certificate programs, and we have received assurance that no further HLC approval is required. The programs have been fully approved through the curriculum process as outlined in University Regulation Title 3, Article 3, Part 5. They now require approval by the Board of Trustees prior to notification of the CDHE. We are recommending these changes be approved for Academic Year 2023/2024.

#### Rationale:

These new certificates target two audiences (1) community members, including alumni who wish to add GIS, cartography, and/or drone data collection and analysis skills to their current credentials and (2) current students in programs outside of DoGGS who want to learn about drone data collection and analysis while enrolled at UNC, but do not wish to change majors or do not have the ability to add a second major at that point in their undergraduate career. The drones certificate requires 15 credit hours and can be completed in two years; the GIS certificate requires 12 credit hours and can be completed in a single year.

Offering these certificates will complement the unit's existing programs and provide distinctive educational experiences that address workforce, environmental, and societal opportunities by engaging students in techniques and technologies that prepare individuals to address current and evolving social and global complexities. These certificates will also supplement many other programs at UNC, such as

- biology, earth and atmospheric sciences, anthropology, and criminal justice, where
  drones can be used as a tool to investigate environmental and societal issues, and
- biology, earth and atmospheric sciences, anthropology, sociology, economics, history, and criminal justice, where GIS and cartography tools can be used to investigate environmental and societal issues.

Employment prospects for students who complete either certificate are strong. The use of drones to collect data is a rapidly growing sector of the economy. Drone pilots are needed in many fields, such as real estate, GIS, local government, construction, the solar industry, and companies such as Amazon, and there is every reason to believe there will continue to be a high demand for drone pilots. GIS is also a growing field: as technology advances, fields including anthropology, water management, oil and gas, biology, environmental monitoring, require entry level employees to have some level of GIS experience. To cite one example: in the 14-day period of September 26 – October 10, 2022, in Northern Colorado, there were 210 new jobs that required GIS skills posted to indeed.com.

**Enrollment Projections:** The department has prepared the following enrollment targets based on enrollment trends in the relevant courses over the past few years, and partly on the maximum enrollment they can be sustained without changing existing course rotations or adding faculty members to the unit.

#### Drones:

| Student enrollment                | Year 1 | Year<br>2 | Year 3 | Year 4 | Year 5 |
|-----------------------------------|--------|-----------|--------|--------|--------|
| New resident                      | 6      | 6         | 8      | 10     | 12     |
| Continuing resident               | 0      | 4         | 4      | 6      | 8      |
| Total enrolled                    | 6      | 10        | 12     | 16     | 20     |
| #Graduating after completing year | 0      | 6         | 6      | 10     | 14     |

#### GIS and Cartography:

| Student enrollment  | Year | Year | Year | Year 4 | Year 5 |
|---------------------|------|------|------|--------|--------|
|                     | 1    | 2    | 3    |        |        |
| New resident        | 0    | 4    | 8    | 10     | 12     |
| Continuing resident | 6    | 6    | 6    | 6      | 8      |
| Total enrolled      | 6    | 10   | 14   | 16     | 20     |
| #Graduating         | 6    | 10   | 14   | 16     | 20     |
| after completing    |      |      |      |        |        |
| year                |      |      |      |        |        |

The GIS & Cartography certificate can be completed in 1 year, but the drones certificate will require two years given current course rotations. The numbers of continuing residents in the drone certificate are meant to allow for the fact that degree seeking undergraduates may choose to spread their coursework over more than two years.

**Budget Impact** The cost of drones and other technologies used in the certificate courses is covered by student course fees. No new courses need to be created in order to offer these two certificates, and there is capacity to serve up to 40 additional students without increasing the total number of sections offered by the unit each year. Should enrollments grow much more quickly than expected, the unit can adjust the assignments of full-time faculty members to deliver additional sections of the specialized coursework required for these certificates, and hire adjunct faculty members to offer less-specialized coursework in their B.A. programs until new revenues from these programs justify additional full-time faculty hires.

A more detailed budget analysis is attached, using the targeted enrollment numbers provided above. It shows that with 40 students across the two certificates, new revenues generated by the unit would be sufficient to cover the cost of hiring an additional full-time faculty member in the department as soon as year 3.

| Tuition model  | Year 1             | Year 2            | Year 3           | Year 4            | Year 5                                       |
|--|--------------------|-------------------|------------------|-------------------|--|
| New Revenue  |                    |                   |                  |                   |  |
| Students enrolled in certificates  | 12                 | 20                | 26               | 36                | 6 40   |
| Program SCH (19.5 credits/student/year)  | 234                | 390               | 507              | 702               | 2 780  |
| Tution generated by DoGGS dept (Program SCH *435)  | \$101,790          | \$169,650         | \$220,545        | \$305,370         | 0 \$339,300                                  |
| New UNC tution (50% of tuition generated by DoGGS)   | \$50,895           | \$84,825          |                  | \$152,685         | 5 \$169,650                                  |
|  |                    |                   |                  |                   |  |
| New expenses   |                    |                   |                  |                   |  |
| none unless total enrollments exceed 40 students.  |                    |                   |                  |                   |  |
| Total costs  | \$0                | \$0               | \$0              | \$0               | 0 \$0  |
|  |                    |                   |                  |                   |  |
| P/L for DoGGS Department (row 5-row 10)  | \$101,790          | \$169,650         | \$220,545        | \$305,370         | 0 \$339,300                                  |
| P/L for UNC (row 6 - row 10)   | \$50,895           | \$84,825          | \$110,273        | \$152,685         | 5 \$169,650                                  |
|  |                    |                   |                  |                   |  |
| Assumptions:   |                    |                   |                  |                   |  |
| 1) 50% of program students are existing enrollments at UNC (they are not included in Row 6 since they would be paying tuition without      | ney are not includ | ded in Row 6 sinc | e they would be  | paying tuition w  | vithout these certificates in another unit). |
| 2) all students take 120 credit hours at UNC   |                    |                   |                  |                   |  |
| 3) increases in faculty salaries (promotions, raises, etc.) offset by increases in tuition rates; annual increases not built into formulas | ນy increases in tu | ition rates; annu | al increases not | built into formul | as.  |
| 4) student fees (not included in revenues) will offset other general campus costs  | eral campus cost:  | S                 |                  |                   |  |
| 5) no discounting on tuition   |                    |                   |                  |                   |  |
|  |                    |                   |                  |                   |  |
| Other Hotes  |                    |                   |                  |                   |  |
| assumptions likely lead to high estimate of new revenues see tab 2 which is much rougher but lower   | see tab 2 which is | s much rougher t  | out lower        |                   |  |
| On this model  |                    |                   |                  |                   |  |
| The program is entirely revenue positive   |                    |                   |                  |                   |  |
|  |                    |                   |                  |                   |  |

|   |                   | ,                 | ,                 |                   |                        |                           |         |
|---|-------------------|-------------------|-------------------|-------------------|------------------------|---------------------------|---------|
| Lump sum model  | Year 1            | Year 2            | Year 3            | Year 4            | Year 5                 |                           |         |
| New Revenue   |                   |                   |                   |                   |                        |                           |         |
| Students enrolled in both certificates combined   | 12                | 20                |                   | 32                | 40                     |                           |         |
| Program generated revenue (16.25% of row 5 see Assumption 1)  | \$31,002          | \$51,670          | \$67,171          | \$82,672          | \$103,340              |                           |         |
| UNC revenue resulting from new enrollments see Assumption 2   | \$60,000          | \$100,000         | \$130,000         | \$160,000         | \$200,000              |                           |         |
|   |                   |                   |                   |                   |                        |                           |         |
| New expenses  |                   |                   |                   |                   |                        |                           |         |
| none unless total enrollments exceed 40 students.   |                   |                   |                   |                   |                        |                           |         |
| Total costs   | \$0               | \$0               | \$0               | \$0               | \$0                    |                           |         |
|   |                   |                   |                   |                   |                        |                           |         |
| P/L for DoGGs Department  | \$31,002          | \$51,670          | \$67,171          | \$82,672          | \$103,340              |                           |         |
| P/L for UNC   | \$60,000          | \$100,000         | \$130,000         | \$160,000         | \$200,000              |                           |         |
|   |                   |                   |                   |                   |                        |                           |         |
|   |                   |                   |                   |                   |                        |                           |         |
| Assumptions:  |                   |                   |                   |                   |                        |                           |         |
| 1) 50% of program students are existing enrollments at UNC (they are not included in Row 6 since they would be paying tuition without these certificates in another unit)                                 | low 6 since the   | y would be payir  | າg tuition withou | t these certifica | ates in another unit). |                           |         |
| 2) CFO suggests each student at UNC generates \$10,000 in unrestricted revenues. Given assumption 1, amount is divided in half.   | en assumption     | 1, amount is divi | ded in half.      |                   |                        |                           |         |
| 2) increases in faculty salaries (promotions, raises, etc.) offset by comparable increases in tuition rates/revenues per student; annual increases not built into formulas                                | s in tuition rate | s/revenues per s  | tudent; annual ir | ncreases not bu   | ilt into formulas.     |                           |         |
|   |                   |                   |                   |                   |                        |                           |         |
| On this model   |                   |                   |                   |                   |                        |                           |         |
| The program is entirely revenue positive  |                   |                   |                   |                   |                        |                           |         |
| - Should enrollments exceed 40 students (current unit capacity), revenues generated by the unit would be sufficient to cover the salary+fringe of a new full time faculty member (approximately \$83,000) | by the unit wo    | uld be sufficient | to cover the sala | ry+fringe of a n  | ew full time faculty r | nember (approximately \$8 | 33,000) |

### UNIVERSITY OF NORTHERN COLORADO

| Meeting Date:  | February 10, 2023   |  |
|--|---|--|
|  | Action Item   | ☐ Discussion Item ☐ Information Item   |
| Name of Item:  | New Undergraduate Coprogram for AY 2023-2                               | mputer Sci and Statistics degrees + revision to the Math Ed PhD<br>024 Catalog                       |
| Responsible St   | aff Member: Kirsten F   | leming, Provost & EVP for Academic Affairs   |
| <ul><li>Department of N</li><li>Compute</li><li>Statistics</li></ul> | new Bachelor of Science<br>Mathematical Sciences, C<br>er Science, B.S. | degrees and a substantial revision to the PhD program in the college of Natural and Health Sciences: |
| Recommended  | Action by BOT:  | Approval   |
| Change to Boa  | rd Policy Manual:   | ☐ Approval ☐ No Action Needed  |
|  |   |  |
|  |   | If yes, Section:   |
| Administrativ  | ve Recommendation   | (Motion):  |
| Signature o  | of Vice President  of President   | 1/31/2023<br>Date<br>02/02/2023<br>Date  |



# Board of Trustees - Action Item Undergraduate Computer Science and Statistics degrees, and substantial revisions to the Mathematics Education PhD program for the AY 2023/2024 catalog.

**Summary of Change**: Creation of two new Bachelor of Science degrees and a substantial revision to the PhD program in the Department of Mathematical Sciences, College of Natural and Health Sciences:

- Computer Science, B.S.
- Statistics B.S.
- Mathematics Education, PhD.

**Background:** The Department of Mathematics currently houses a Mathematics B.S. with concentrations in Computer Science, Pure and Applied Mathematics, Statistics and Data Science, Teaching Licensure: Middle School Mathematics and Secondary Teaching Licensure: Mathematics. It also houses a Mathematics M.A. with concentrations in Liberal Arts and Teaching, and an Educational Mathematics PhD.

In March 2022, Interim Provost Vollendorf charged two working groups to explore the feasibility of adding Bachelor of Science degrees in Computer Science and in Statistics/Data Science to UNC's undergraduate academic portfolio. The CS Group noted that UNC currently houses three undergraduate programs related to their charge -- a Computer Information Systems concentration within the Business Administration, B.S. (housed in the Department of Accounting and Computer Information Systems in the Monfort College of Business); a Computer Science concentration within the Mathematics, B.S. (housed in the Department of Mathematics within the College Natural and Health Sciences), and a Software Engineering, B.S. degree (housed jointly in the Departments of Accounting & CIS and the Department of Mathematics), and concluded that while 16 courses (48 credits) embedded within those existing programs could be incorporated in a standalone Computer Science B.S., at least 11 new courses (33 credits) would need to be developed and offered regularly. The Stats Group noted that the only related *undergraduate* program is the statistics and data science *concentration* within the Mathematics B.S., though the Department of Applied Statistics and Research Methods in the College of Education and Behavioral Sciences also offers a M.A. and a Ph.D. program. The Stats Group also concluded that 4-6 additional upper-level courses would be required to offer a full-fledged major.

Each group also prepared a pro/con analysis of various organizational structures for housing these new degrees. Mathematical Sciences was determined to be the best fit for the following reasons:

- 1. Housing mathematics, statistics, computer science and software engineering faculty in the same academic unit allows more seamless cross-disciplinary course offerings and better economies of scale.
- 2. Computer science programs in Colorado and nationally are most often housed in science colleges, as is the case with UNC's current Computer Science and Statistics & Data Science concentrations within the Mathematics B.S.
- 3. It allows for greater flexibility in course delivery current Math faculty and graduate students can teach CS courses allowing the program to ramp up quickly and remain flexible to future needs.
- 4. The advising structure within NHS provides better connections to graduate school and career opportunities.

Based on those findings, the Department of Mathematics was asked to develop full degree program proposals and was authorized to begin searching for two new faculty members with computer science expertise and one with statistics expertise.

Academic Affairs has notified HLC of our intent to create both a Computer Science B.S. and a Statistics B.S. and received assurance that no further HLC approval is required. The proposed degree programs have been fully approved through the curriculum process as outlined in University Regulations Title 3, Article 3, Part 5. They now require approval by the Board of Trustees prior to notification of the CDHE. We are recommending the new undergraduate degrees be approved for Academic Year 2023/2024.

In additional to developing two undergraduate degree proposals, the mathematics faculty also completed substantial revisions to their Graduate Ph.D. program. An admissions pause was placed on the prior program, entitled "Education Mathematics" Ph.D. for the past year while these revisions were completed, and they now wish to deactivate the old program and replace it with the new program entitled "Mathematics Education" Ph.D. We notified HLC of the revisions and renaming of the Ph.D. and have received assurance that no further HLC approval is required. Academic Affairs will notify the CDHE of the name change prior to the release of the AY 2023/24 catalog.

Rationale for New Undergraduate Programs: The new undergraduate programs will provide students with degrees that prepare them for immediate entry into the workforce, and hence are fully aligned with the Student's First focus of UNC's strategic plan. A market analysis conducted by Extended Campus shows that completions of computer science degrees at competitor institutions in Colorado have grown 230% since 2012 (and 183% nationally). The Bureau of Labor Statistics projects employment of computer and information research scientists to grow 21 percent between 2021 to 2031, which is much faster than the average for all occupations. The median annual wage for these jobs in 2021 was \$131,490. Demand for degrees in statistics is also increasing, with the number of bachelor's degrees in statistics awarded nationwide increasing fivefold between 2011 and 2021. The Bureau of Labor Statistics projects that employment of statisticians will increase by 33% from 2021 to 2031, with 11,200 jobs expected to be created. In 2021, the median annual wage for statisticians was \$95,570, with only 10% of statisticians earning less than \$50,000.

The syllabi and overall course requirements for the computer science were developed based on the expertise of Drs. Harris, Miller, and Levin and by looking at ABET Accreditation<sup>1</sup> criteria for computer science programs. They have not yet applied for ABET accreditation, since it is not a critical requirement for employers or graduate schools. However, they are willing to consider applying for ABET in needed to strengthen UNC's reputation or the success of program graduates. The syllabi and overall course requirements for the statistics degree were developed with the support of external consultants who agreed that a program focused on statistics, rather than data science, was a better fit for UNC currently, though additional data science components could be added in the future. To our knowledge, no relevant organization currently offers accreditation to undergraduate statistics programs. Both programs make maximum use of existing coursework at UNC. As new faculty are hired into the department of Mathematical Sciences, the department plans to add additional elective coursework and, if appropriate, make other revisions to the program in order to highlighting the new faculty's distinctive expertise.

Rational for Revised and Renamed Ph.D. degree: Changes to the Ph.D. program shift the focus from research in undergraduate mathematics education to preparing mathematics educators for grades 7-14. The unit is making this shift to:

- 1. More effectively use the expertise in the department
- 2. Better prepare graduates for the current mathematics education job market
- 3. Increase enrollment (as there is a higher demand for middle, high-school and early college instructors)
- 4. Create efficiencies in the program (e.g., increase the number of students graduating in four years, and reduce the number of low-enrolled courses for the PhD).

The Ph.D. changes are also aligned with UNC's reputation and commitment to teacher education. Eighty-four percent of the graduates of our current program since 2002 are employed in mathematics departments or teacher education programs in colleges of education., so the revised and renamed Mathematics Education Ph.D. is more closely aligned with the interests of students who attend UNC and the skills they will need to succeed in these careers.

Undergraduate Enrollment Targets: Using data from UNC's software engineering degree between 2016 and 2021, the Department of Mathematics prepared the following enrollment projections for the Computer Science degree:

| Student enrollment                      | Year<br>1 | Year<br>2 | Year<br>3 | Year<br>4 | Year<br>5 | Year<br>6 | Year<br>7 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| New resident                            | 10        | 17        | 20        | 26        | 32        | 32        | 32        |
| <b>Continuing resident</b>              | 7         | 12        | 22        | 29        | 38        | 49        | 53        |
| Total enrolled                          | 17        | 29        | 42        | 55        | 70        | 81        | 81        |
| Number graduating after completing year | 5         | 7         | 13        | 17        | 21        | 28        | 30        |

<sup>&</sup>lt;sup>1</sup> https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-computing-programs-2021-2022/

The ten students in Year 1 are in addition to the seven students currently enrolled in the Computer Science Concentration of the Mathematics B.S., which the department plans to discontinue once currently enrolled students have graduated or opted to move into the Computer Science B.S. Note that the number of "new resident" students projected for each year includes first year, sophomore, juniors and seniors. Once the projected steady-state enrollment of 80-90 students is reached, the model predicts the 32 new enrollments to be comprised of 11 first time first year students, 6 sophomores, 10 juniors (transfers in) and 5 seniors. The fact that roughly 2/3 of the "new students" will transfer into the program with significant credit hours already completed explains why the total enrollment projected any given year is significantly less than the sum of the entering students for that year plus the three proceeding years.

Using the same assumptions and methodology, the department prepared the following enrollment analysis for Statistics:

| Student envellment         | Year |
|----------------------------|------|------|------|------|------|------|------|
| Student enrollment         | 1    | 2    | 3    | 4    | 5    | 6    | 7    |
| New resident               | 10   | 17   | 20   | 26   | 32   | 32   | 32   |
| <b>Continuing resident</b> | 6    | 11   | 22   | 29   | 38   | 49   | 53   |
| Total enrolled             | 16   | 28   | 42   | 55   | 70   | 81   | 85   |
| Number graduating          | 5    | 6    | 13   | 17   | 21   | 28   | 30   |
| after completing year      | 3    | 6    | 13   | 1 /  | ∠ I  | 20   | 30   |

**Graduate Enrollment Targets:** For the revised and reopened Ph.D. program, the unit expects to admit 2-3 students per year, with 8-12 students in the program at any given time. These numbers are consistent with actual enrollments between 2016-2021 and represent the maximum number of PhD dissertations the math department could supervise without increasing the size of the graduate faculty.

**Budget Impacts:** After examining fill rates in existing courses that will be incorporated in the new undergraduate degrees, the mathematics department has determined that it will not need to begin adding additional sections of those courses until Year 2. With new hires resulting from the faculty searches currently underway, the unit will also be able to deliver the new courses in the program required to serve the projected number of students per year until at least year three. In addition to those faculty hires, they will need software upgrades in existing computer labs in year one and additional computer lab classrooms in approximately year three and year 5. The lab space will be used by both programs. The cost of software upgrades is negligible as UNC already owns any necessary licenses and the labor time for adding software to machines is covered by student technology fees.

The attached excel spreadsheet provides two different models for estimating the impact of the new undergraduate programs on budget. The first tab uses existing tuition rates to project total new revenues, while the second tab uses the Chief Financial Officer's estimate that each additional undergraduate student represents \$10,000 in undedicated revenues. Expenses are calculated the same way on both tabs. Because both degrees require 58 credits taught by the math department, tuition estimates are combined.

Note that for the revised graduate degree, no budget impact is expected. In addition to representing the maximum number of graduate students department faculty can

supervise, the enrollment numbers represent the maximum amount of graduate assistantship funding that is available to the unit.

| Tuition model   | Year 1            | Year 2             | Year 3           | Year 4             | Year 5              | Year 6       | Years 7 and beyond |
|---|-------------------|--------------------|------------------|--------------------|---------------------|--------------|--------------------|
| New Revenue   |                   |                    |                  |                    |                     |              |                    |
| Students enrolled in program  | 33                | 57                 | 84               | 110                | 140                 | 162          | 166                |
| Program SCH (14.5 credits/student/year)   | 479               | 827                | 1218             | 1                  | 2030                | 2349         | 2407               |
| Tution generated by math dept (Program SCH *435)  | \$208,148         | \$359,528          | \$529,830        | \$693,825          | \$883,050           | \$1,021,815  | \$1,047,045        |
| Total UNC tution (30 credits/student/year)  | \$430,650         | \$743,850          | \$1,096,200      | \$1,435,500        | \$1,827,000         | \$2,114,100  | \$2,166,300        |
| New expenses  |                   |                    |                  |                    |                     |              |                    |
| classroom upgrades  |                   |                    | 000′52\$         |                    | \$75,000            |              |                    |
| New CS Faculty (100K each; includes fringe)   | \$200,000         | \$200,000          | \$200,000        | \$200,000          | \$200,000           | \$200,000    | \$200,000          |
| New Statistics Faculty (@92K each; includes fringe)   | \$92,000          | \$92,000           | \$184,000        | \$184,000          | \$184,000           | \$184,000    | \$184,000          |
| Total costs   | \$292,000         | \$292,000          | \$459,000        | \$384,000          | \$459,000           | \$384,000    | \$384,000          |
| P/L for Math Department (row 5-row 11)  | \$116,148         | \$267,528          | \$345,830        | \$509,825          | \$699,050           | \$837,815    | \$863,045          |
| P/L for UNC (row 6 - row 11)  | \$338,650         | \$651,850          | \$912,200        | \$1,251,500        | \$1,643,000         | \$1,930,100  | \$1,982,300        |
|   |                   |                    |                  |                    |                     |              |                    |
| Assumptions:  |                   |                    |                  |                    |                     |              |                    |
| 1) all program students are new enrollments at UNC that would not be achieved without this program (not moves from other programs)                                | not be achieved   | without this pro   | gram (not move   | s from other prog  | grams)              |              |                    |
| 2) increases in faculty salaries offset by comparable increases in tuition rates/revenues per student (annual and promotional increases not built into formulas). | tuition rates/re  | venues per stude   | nt (annual and p | romotional incre   | ases not built into | o formulas). |                    |
| 3) student fees (not included in revenues) will offset other general campus costs   | eral campus costs | 0,                 |                  |                    |                     |              |                    |
| 4) students complete 1/4 of total program credits each year and graduate in 4 years   | d graduate in 4 y | ears               |                  |                    |                     |              |                    |
| 5) no discounting on tuition  |                   |                    |                  |                    |                     |              |                    |
| Other notes   |                   |                    |                  |                    |                     |              |                    |
| assumptions likely lead to high estimate of new revenues see tab 2 which is much rougher but lower  | ee tab 2 which is | much rougher b     | ut lower         |                    |                     |              |                    |
| program approved for AY23/24 will have had no marketing/admissions support (Year 1 #s may not be achieved until   | admissions suppo  | ort (Year 1 #s may | not be achieved  | d until AY 2024/25 | 5)                  |              |                    |
|   |                   |                    |                  |                    |                     |              |                    |
| On this model   |                   | -                  |                  |                    |                     |              |                    |
| Using FY23 as a baseline, the program is revenue positive for UNC and the math department.  | UNC and the ma    | ith department.    |                  |                    |                     |              |                    |

| Lump sum model   | Year 1          | Year 2            | Year 3             | Year 4             | Year 5           | Year 6                  | Year 7 and beyond |
|--|-----------------|-------------------|--------------------|--------------------|------------------|-------------------------|-------------------|
| New Revenue  |                 |                   |                    |                    |                  |                         | ·                 |
| Total students enrolled in new degree programs   | 33              | 57                | 84                 | 110                | 140              | 162                     | 166               |
| Program generated revenue (48.3% of row 5 since each program requires 58 credits)  | \$159,489       | \$275,481         | \$405,972          | \$531,630          | \$676,620        | \$782,946               | \$802,278         |
| UNC revenue resulting from new enrollments (CFO suggests 10K/student)  | \$330,000       | \$570,000         | \$840,000          | \$1,100,000        | \$1,400,000      | \$1,400,000 \$1,620,000 | \$1,660,000       |
|  |                 |                   |                    |                    |                  |                         |                   |
| New expenses   |                 |                   |                    |                    |                  |                         |                   |
| classroom upgrades   |                 |                   | \$75,000           |                    | \$75,000         |                         |                   |
| New CS Faculty (100K each; includes fringe)  | \$200,000       | \$200,000         | \$200,000          | \$200,000          | \$200,000        | \$200,000               | \$200,000         |
| New Statistics Faculty (@92K each; includes fringe)  | \$92,000        | \$92,000          | \$184,000          | \$184,000          | \$184,000        | \$184,000               | \$184,000         |
| Total costs  | \$292,000       | \$292,000         | \$459,000          | \$384,000          | \$459,000        | \$384,000               | \$384,000         |
|  |                 |                   |                    |                    |                  |                         |                   |
| P/L for Math Department (Program SCH   | -\$132,511      | -\$16,519         | -\$53,028          | \$147,630          | \$217,620        | \$398,946               | \$418,278         |
| P/L for UNC  | \$38,000        | \$278,000         | \$381,000          | \$716,000          | \$941,000        | \$941,000 \$1,236,000   | \$1,276,000       |
|  |                 |                   |                    |                    |                  |                         |                   |
| Assumptions:   |                 |                   |                    |                    |                  |                         |                   |
| 1) all program students are new enrollments at UNC that would not be achieved without this program (not moves from other programs, especially other programs offered by math). | ut this program | (not moves from   | other programs,    | especially other p | programs offered | d by math).             |                   |
| 2) increases in faculty salaries offset by comparable increases in tuition rates/revenues per student (annual and promotional increases not built into formulas).              | per student (aı | nnual and promo   | tional increases n | ot built into form | ulas).           |                         |                   |
|  |                 |                   |                    |                    |                  |                         |                   |
| On this model  |                 |                   |                    |                    |                  |                         |                   |
| Using FY23 as a baseline, the programs are revenue positive for UNC.   |                 |                   |                    |                    |                  |                         |                   |
| Using FY23 as a baseline, the math department generates SCH to cover its additional program expenses (faculty and classrooms/equipment) by year 5.                             | program expe    | nses (faculty and | classrooms/equip   | oment) by year 5.  |                  |                         |                   |

## NORTHERN COLORADO

| Meeting Date:    | February 10, 2023   |
|------------------|---|
|                  | Action Item Discussion Item Information Item  |
| Name of Item:    | New Undergraduate Entrepreneurship Certificate Program in Monfort College of Business,<br>Dept of Management for the AY 2023-2024 Catalog |
| Responsible St   | aff Member: Kirsten Fleming, Provost & EVP for Academic Affairs   |
| Summary of       |   |
| Creation of an u | ndergraduate certificate in the Department of Management, Monfort College of Business:  |
| • Entrepre       | eneurship Certificate   |
| шиерге           | accusing serumente  |
|                  |   |
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|                  |   |
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| Recommended      | I Action by BOT:   Approval  No Action Needed   |
|                  |   |
| Change to Boa    | rd Policy Manual:   |
|                  | If yes, Section:  |
| Administrativ    | ve Recommendation (Motion):   |
| Signature o      | Tlening 1/31/2023 of Vice President Date  |
|                  | 02/02/2023<br>of President Date   |



## Board of Trustees - Action Item New Undergraduate Entrepreneurship Certificate Program for Academic year 2023/24

**Summary of Change:** Creation of an undergraduate certificate in the Department of Management, Monfort College of Business:

Entrepreneurship Certificate

**Background:** Over the years, Monfort College of Business (MCB) has received inquiries from other colleges, specifically PVA and NHS, regarding the offering of entrepreneurial competencies and skills to nonbusiness students interested in developing and managing their own businesses. While MCB has long offered an entrepreneurship minor, repackaging it as an undergraduate certificate allows it to count as an educational credential. The minor is being deactivated to avoid any competition with the certificate, so there is no net change in the number of programs offered by MCB. However, the entrepreneurship certificate does count as a brand-new credential offered by UNC and hence requires Board Approval.

Academic Affairs has notified HLC of our intent to offer this program and received assurance that no further HLC approval is required. The program has been fully approved through the curriculum process as outlined in University Regulation Title 3, Article 3, Part 5. It now requires approval by the Board of Trustees prior to notification of the CDHE. We are recommending this certificate be approved for Academic Year 2023/2024.

Rationale: This 12-credit entrepreneurship certificate will prepare students to become leaders in creating value through the development of new business opportunities, both within existing businesses and through new venture creation. The core courses are designed to give students the appropriate framework for testing the feasibility of a business idea, putting together a business plan, and managing a new business. The certificate includes electives designed to give students practical hands-on experience in the entrepreneurship field by working directly with companies through an approved internship, consulting for small businesses, or learning how to launch a business. Students graduating with an entrepreneurship certificate can immediately begin work on their own businesses, while others can work in existing entrepreneurial enterprises.

Enrollment Projections: Long-term targeted enrollment for the entrepreneurship certificate is based on the current percentage of MCB students minoring in entrepreneurship, which is 3% of the total undergraduate headcount in the college. Since the unit is discontinuing the minor (transitioning it to the certificate), they expect the certificate to continue to enroll MCB students at about the same rate. Extrapolating that to the general UNC undergraduate population MCB expects the program to eventually serve about 3% of undergraduate enrollment (e.g., 6214), which is 186. Each year, a growth rate of 50% is projected which means it will reach the expected maximum by year six. Since all students who enroll in the certificate program are expected to be UNC undergraduates pursing a

bachelor's degree, no attempt has been made to determine when they will enter and leave the program -- enrollments represent the total number of students who may be taking one or more of the four required courses for the certificate that year.

|              |        | Pr     | ojected I   | Enrollme     | nt          |              | Growth<br>Rate |
|--------------|--------|--------|-------------|--------------|-------------|--------------|----------------|
| GOAL         | Year 1 | Year 2 | Year 3      | Year 4       | Year 5      | Year 6       |                |
| UG students  | 18     | 27     | 41          | 61           | 137         | 186*         | 50.00%         |
| Enrollment   |        |        |             |              |             |              | s reached in   |
| projections: | Yean   |        | _           | •            |             | ng the later | years of       |
|              |        | Ċ      | lelivery. T | his is diffi | cult to pro | edict.       |                |

**Budget Impacts:** The immediate impact of offering an entrepreneurship certificate open to all university students will be to fill existing capacity in each of the classes. This will lead to more efficient resource utilization. Since all courses included in the program are currently being offered, there will be no negative impact if target enrollments are not achieved. New enrollments can only increase revenues produced by MCB. The program is not expected to attract new students to UNC; rather, it offers an attractive way for students to use their university wide elective credits within other majors to achieve an additional credential.

If the projected enrollments are achieved, the department will need adjunct funding to cover 4 additional sections (12 credit hours) by Year 3, and to cover 1 full-time faculty member plus 3 additional adjunct taught sections (9 credit hours) by Year 5. There are no other projected costs. The attached excel spreadsheet provides a more detailed analysis of revenues generated against these costs. The lump sum model included with other curriculum proposals it not used since the program is not expected to bring new students to UNC. However, the differential tuition on MCB coursework would increase UNC revenues collected from students in this certificate who would have otherwise chosen university wide elective credits or credits in other UNC minors or certificates that do not carry differential tuition. While it is possible that growth in this program will reduce revenues generated by other programs, those enrollment patterns can be monitored over time with corresponding adjustments to instructional spending in those units. The effect on any specific unit is likely to be minimal in any case, as this certificate is only 12 credits.

|  |                    | ;                  | :                 |                    | :                    |                        |                                 |
|--|--------------------|--------------------|-------------------|--------------------|----------------------|------------------------|---------------------------------|
| luition model  | Year 1             | Year 2             | Year 3            | Year 4             | Year 5               | Year 6                 |                                 |
| New Revenue  |                    |                    |                   |                    |                      |                        |                                 |
| Students enrolled in program   | 18                 | 27                 | 41                | 61                 | 137                  | 186                    |                                 |
| Program SCH (12 credits/student/year)  | 216                | 324                | 492               | 732                | 1644                 | 2232                   |                                 |
| Tution generated by MGMT dept (Program SCH *475)   | \$102,600          | \$153,900          | \$233,700         | \$347,700          | \$780,900            | \$1,060,200            |                                 |
| New UNC tution (Program SCH * MCB differential tuition )   | \$8,640            | \$12,960           | \$19,680          | \$29,280           | \$65,760             | \$89,280               |                                 |
|  |                    |                    |                   |                    |                      |                        |                                 |
| New expenses   |                    |                    |                   |                    |                      |                        |                                 |
| Adjunct funding (@1615/CH)   |                    |                    | \$19,380          | \$19,380           | \$33,915             | \$33,915               |                                 |
| New full time faculty (salary + fringe)  |                    |                    |                   |                    | \$150,000            | 150,000                |                                 |
| Total costs  | \$0                | \$0                | \$19,380          | \$19,380           | \$183,915            | \$183,915              |                                 |
|  |                    |                    |                   |                    | _                    |                        |                                 |
| P/L for MGMT Department (row 5-row 11)   | \$102,600          | \$153,900          | \$214,320         | \$328,320          | \$596,985            | \$876,285              |                                 |
| P/L for UNC (row 6 - row 11)   | \$8,640            | \$12,960           | \$300             | \$9,900            | -\$118,155           | -\$94,635              |                                 |
|  |                    |                    |                   |                    |                      |                        |                                 |
|  |                    |                    |                   |                    |                      |                        |                                 |
| Assumptions:   |                    |                    |                   |                    |                      |                        |                                 |
| 1) All program students are existing enrollments at UNC (hence only differential tuition is included in Row 6).  | າly differential t | uition is included | d in Row 6).      |                    |                      |                        |                                 |
| 2) increases in faculty salaries (promotions, raises, etc.) offset by increases in tuition rates; annual increases not built into formulas.  | ncreases in tuiti  | ion rates; annual  | l increases not b | uilt into formula: | s.                   |                        |                                 |
| 3) student fees (not included in revenues) will offset other general campus costs  | l campus costs     |                    |                   |                    |                      |                        |                                 |
| 4) no discounting on tuition   |                    |                    |                   |                    |                      |                        |                                 |
| 5) Only the MCB differential tuition rate represents "new" revenues generated by the program for UNC.  | es generated by    | the program for    | r UNC.            |                    |                      |                        |                                 |
|  |                    |                    |                   |                    |                      |                        |                                 |
| On this model  |                    |                    |                   |                    |                      |                        |                                 |
| The program is entirely revenue positive for MCB even when additional adjunct and full time faculty must be added  | ditional adjunct   | and full time fac  | culty must be ad  | ded.               |                      |                        |                                 |
| The UNC "losses" in Years 5 and 6 would result from students moving into MCB coursework and out of other disciplines and would likely be offset by reduced instructional needs in other disciplines. | າoving into MCE    | coursework and     | d out of other di | sciplines and wo   | uld likely be offset | by reduced instruction | nal needs in other disciplines. |

## NORTHERN COLORADO

| Meeting Date:                                 | February 10, 2023  |   |         |   |      |
|---|--|---|---------|---|------|
|   | Action Item  | Discussion I                                | [tem    |   |      |
| Name of Item:                                 | Academic Unit & Assoc  | ciated Program Na                           | me Cha  | anges for the AY 2023/2024 Catalog  |      |
| Responsible St                                | aff Member: Kirsten F  | leming, Provost 8                           | & EVP f | for Academic Affairs  |      |
| of Communication the Audiolog<br>Disorders B. | talog to change the Dep<br>on Sciences & Disorders<br>gy and Speech Language<br>S. | s, and updating the<br>Sciences B.S. will r | associa | peech Language Sciences to the Depart<br>ated program names:<br>called the <i>Communication Sciences</i> &<br>cation Sciences & Disorders Au.D. | ment |
| Recommended                                   | Action by BOT:   | Approval                                    | ⊠ No    | Action Needed   |      |
| Change to Boa                                 | rd Policy Manual:  | Approval                                    | ⊠ Nc    | o Action Needed   |      |
| J   | ,  |   |         |   |      |
|   |  | If yes, Section:                            |         |   |      |
| Administrativ                                 | ve Recommendation  | n (Motion):                                 |         |   |      |
| Signature o                                   | of Vice President  of President  | 1/31/2023<br>Date<br>02/02/2023<br>Date     |         |   |      |



# Board of Trustees - Information Item Academic Unit and Associated Program Name Changes for the AY 2023/2024 Catalog

**Summary of Change**: Updating the catalog to change the Department of Audiology & Speech Language Sciences to the Department of Communication Sciences & Disorders, and updating the associated program names:

- the Audiology and Speech Language Sciences B.S. will now be called the *Communication Sciences & Disorders B.S.*
- the Audiology Au.D. program will now be called the *Communication Sciences & Disorders Au.D.*

**Background:** The Department of Audiology and Speech Language Sciences changed its name to the Department of Communication Sciences and Disorders at the start of the current Academic Year (this change was approved by Interim Provost Vollendorf in the Spring of 2022). They have now had time to complete the necessary curriculum documentation to change the titles of their undergraduate and graduate degree programs to mirror the new department name.

Rationale: The new title for both the department and its associated programs updates terminology to follow current practices within the discipline, and hence will better position graduates of these programs within the job market. The course prefix used by all courses within the programs has also been changed from ALSL to CSD. This simply aligns the prefix with the initials of the new department name, making it easier for students and other stakeholders to easily identify the unit responsible for delivering courses with that prefix. We will notify CDHE to update the name change on its website.

Enrollment and Budget Impacts: None. No substantive changes were made to the content of either the undergraduate or graduate program. This is a name change only.

## UNIVERSITY OF NORTHERN COLORADO

| Meeting Date:   | February 10, 2023  |   |   |  |    |
|---|--|---|---|--|----|
|   | Action Item  | Discussion  | Item  |  |    |
| Name of Item:   | Adding Concentrations  | to the Elementa   | ry Educ   | cation B.A. for the AY 2023/2024 Catalog   |    |
| Responsible St  | taff Member: Kirsten F   | leming, Provost   | & EVP   | for Academic Affairs   |    |
| independent cor   | n tracks within the Teache<br>ncentrations and renaming<br>dies. The programs are ho   | the existing Liber  | al Arts (   | n of the Elementary Education B.A. as<br>(non-licensure) concentration to Non-Licensu<br>F Teacher Education, College of Education & | re |
| <ul> <li>Element</li> <li>Element</li> <li>Element</li> <li>Element</li> <li>Element</li> </ul> | ary Education B.A Mathary Education B.A Scienary Education B.A Education B.A Perferry Education B.A Social ary Education B.A Cultivary Education B.A Specary Education B.A Specary Education B.A Non | nce Teaching Licer<br>cation New Litera<br>orming and Visual<br>al Studies Teachingurally and Linguist<br>tial Education Teac | nsure (K<br>cies Tea<br>Arts Te<br>g Licens<br>ically D<br>ching Li | K-6) aching Licensure (K-6) eaching Licensure (K-6) sure (K-6) Diverse Teaching Licensure (K-6) icensure (K-6)                       |    |
| Recommended   | d Action by BOT:   | Approval  | ⊠ No  | o Action Needed  |    |
| Change to Boa   | ard Policy Manual:   | ☐ Approval  | ⊠ N   | lo Action Needed   |    |
|   | ,  |   |   |  |    |
|   |  | If yes, Section   | ո:  |  |    |
| Administrati  | ve Recommendation  | (Motion):   |   |  |    |
| Signature o   | of Vice President  | 1/31/2023<br>Date<br>02/02/2023   |   |  |    |



## Board of Trustees - Information Item Adding Concentrations to the Elementary Education B.A. for the AY 2023/2024 Catalog

**Summary of Change**: Cataloging seven tracks within the Teacher Licensure Concentration of the Elementary Education B.A. as independent concentrations and renaming the existing Liberal Arts (non-licensure) concentration to Non-Licensure Educational Studies. The programs are housed within the School of Teacher Education, College of Education & Behavioral Studies:

- Elementary Education B.A. Mathematics Teaching Licensure (K-6)
- Elementary Education B.A. Science Teaching Licensure (K-6)
- Elementary Education B.A. Education New Literacies Teaching Licensure (K-6)
- Elementary Education B.A. Performing and Visual Arts Teaching Licensure (K-6)
- Elementary Education B.A. Social Studies Teaching Licensure (K-6)
- Elementary Education B.A. Culturally and Linguistically Diverse Teaching Licensure (K-6)
- Elementary Education B.A. Special Education Teaching Licensure (K-6)
- Elementary Education B.A. Non-Licensure Educational Studies

**Background:** UNC has long offered two concentrations within the Elementary Education B.A: a teacher licensure concentration, and a liberal arts concentration (without licensure). Within the Teacher Licensure concentration, students have been required to choose one of seven "tracks" corresponding to recognized subspecialties within the field of Elementary Education. Beginning with the AY 2023/24 catalog, each track will now be cataloged as an independent concentration program.

A concentration program is a dedicated pathway to a specific degree. Adding or deleting a concentration does not change the number of major *degrees* offered by UNC or how we report degree completions to external stakeholders: all concentrations roll up to the same bachelor's degree name/CIP Code and student diplomas only list that degree name (e.g., B.A in Elementary Education). We are not required to notify the state of new concentrations and they are not listed on the CDHE website. However, when a student completes a concentration within their chosen degree, that concentration is described on the student's official transcript. Because concentration programs are listed on our admissions portal and college websites, they facilitate recruitment of students with those specific interests. They also signify to potential employers and graduate schools that the student has education in a specific subfield of their major discipline.

**Rationale**: Cataloging each of the former teacher licensure tracks as an independent concentration will:

- provide better visibility of our diverse offerings within elementary education;
- simplify advising and course selection by clarifying the unique requirements for each specific concentration within a single program listing;
- enable the registrar to list the specific concentration pathway used to complete the Elementary Education Teacher Licensure B.A. on student transcripts, and
- in any case where a student completes the coursework for two or more concentrations, allow both concentrations to be listed on the student's transcript.

The specific coursework required within each of these "new" concentration programs is identical to the coursework required for each of the previous tracks embedded within the single teacher licensure concentration.

The School of Teacher Education has also renamed and simplified the structure of the existing Liberal Arts (non-licensure) concentration. The Liberal Arts concentration required students to complete "track" coursework corresponding to the tracks within the licensure degree but exempted them from specific teacher licensure requirements. The renamed *Non-Licensure Educational Studies* concentration removes all references to tracks and affords students more flexibility in choosing university wide electives. The renamed concentration continues to prepare students who choose not to pursue licensure to compete on the job market and succeed in careers that involve work with elementary school-aged children.

#### **Enrollment and Budget Impacts:**

There is no immediate enrollment impact. Students who were previously required to choose a 'track' within the single Elementary Education B.A. - Teaching Licensure Concentration will now complete the same requirements under the appropriate concentration name, and students who choose not to pursue licensure may complete the Non-Licensure Educational Studies concentration. However, we hope the increased visibility of our diverse concentration offerings will help our School of Teacher Education attract new students.

Similarly, there is no immediate budget impact as these changes do not require new courses or new faculty members. They are simply a better way of cataloging, and making visible, what we already do.

### UNIVERSITY OF NORTHERN COLORADO

| Meeting Date:      | February 10, 2023         |   |
|--------------------|---------------------------|---|
|                    | Action Item               | ☐ Discussion Item ☐ Information Item                      |
| Name of Item:      | Music B.A. Concentration  | on Updates for the AY 2023/2024 Catalog                   |
| Responsible St     | aff Member: Kirsten Fl    | eming, Provost & EVP for Academic Affairs                 |
| Summary of         |                           |   |
| Creation of two    | new concentrations within | the School of Music, College of Performing & Visual Arts: |
| Music B.           | A Culture and Expression  | on Concentration  |
|                    | A Latinx Music Concen     |   |
| Also deletion of   | Etho oxisting Music R A   | Liberal Arts Concentration.                               |
| 71180, deletion of | the existing music b.71.  | Liberal IIIIs Concentration.                              |
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|                    |                           |   |
| Recommended        | Action by BOT:            | ☐ Approval ☐ No Action Needed                             |
| Change to Boa      | rd Policy Manual:         | ☐ Approval ☐ No Action Needed                             |
|                    |                           |   |
|                    |                           | If yes, Section:  |
| Administrativ      | ve Recommendation         | (Motion):   |
|                    | 2 17                      |   |
|                    | . Fleming                 | 1/31/2023   |
| Signature o        | of Vice President         | Date  |
|                    |                           | 02/02/2023  |
| Signature o        | of President              | Date  |



### Board of Trustees - Information Item Concentration updates in Music B.A. for the AY 2023/2024 Catalog

**Summary of Change**: Creation of two new concentrations within the School of Music, College of Performing & Visual Arts:

- Music B.A. Culture and Expression Concentration, and
- Music B.A. Latinx Music Concentration.

Also, deletion of the existing Music B.A. - Liberal Arts Concentration.

Background: The School of Music houses a (1) highly competitive Music B.M. degree with multiple concentrations to prepare students for performance-based music careers, (2) a Music Education B.M.E with multiple concentrations to prepare teacher licensure candidates for K-12 music teaching careers, and (3) a Music B.A. consisting of a single Liberal Arts concentration. To date, all three of these degree programs have required auditions prior to full admission. While the Music B.A. was designed to serve students who were unable to secure a spot in the more competitive Music B.M. and who did not wish to pursue teacher education licensure, in fact, very few students completed the B.A., most transferred to less competitive performance-based programs at other institutions, and some changed majors to a non-music degree at UNC. The audition requirement even for the Music B.A. Liberal Arts Concentration also meant that students interested in college level music study who had limited performance experience and/or limited access to music education in high school were unable to enter the program.

For next year's catalog, the School of Music (SOM) has:

- 1. Removed the audition requirement for admissions into the Music B.A. (only)
- 2. Renamed and repackaged the Liberal Arts Concentration as a *Culture and Expressions Concentration*.
- 3. Created a second concentration with a focus on Latinx Music.

A concentration program (previously called an "emphasis") is a dedicated pathway to a specific degree. Adding or deleting a concentration does not change the number of major *degrees* offered by UNC or how we report degree completions to external stakeholders: all concentrations roll up to the same bachelor's degree name/CIP Code and student diplomas only list that degree name (e.g., B.A. in Music). We are not required to notify the state of new concentrations and they are not listed on the CDHE website. We have notified the HLC of these changes and they have assured us that no further action is required.

**Rationale**: These new concentrations place UNC's School of Music and the College of Performing & Visual Arts on the leading edge of music in higher education. The *Culture and Expression* concentration offers a contemporary repackaging of existing coursework fully aligned with current industry trends, distinguishing it from B.A. programs offered by

competitor institutions. The proposed *Latinx Music* concentration appears to be unique in higher education: while there are other music programs with a few courses and ensembles, we have found no other degree or concentration program in Latinx Music. The Latinx Concentration is intentionally aligned with UNC's emphasis on DEI and commitment to becoming a Hispanic Serving Institution by 2025. In addition to serving students enrolled in the program directly, student ensembles within these concentrations, including a Mariachi Band and an Afro-Caribbean Group, will contribute to the day-to-day life of the university in a way that welcomes and celebrates Latinx and Hispanic people. Finally, the employment landscape for potential graduates from both concentrations is strong. The *Colorado Creative Industries: 2020 Colorado Creative Economy Report* shows a 35% employment increase Music, Theatre, Dance, and Visual Arts in the previous decade, and the *Recording Industry Association of America* noted a 35% growth in the Latinx Music market in the US between 2020 and 2021.

The Music B.A. is accredited by the National Association of Schools of Music (NASM) and both concentrations adhere to NASM requirements.

#### **Enrollment and Budget Impacts**

There are 12 students currently enrolled in the Music B.A. Currently, up to 280 students begin applications for this program, but fewer than half complete the application once they learn about the audition requirement. That barrier has now been removed. Of the 117 students accepted (post audition) into the B.A. last year, 55 (or 47%) enrolled at UNC. Based on that percentage, even if only 200 students complete their applications next year, it is likely that 94 students will enroll. As noted in the Background section above, the gap between the 55 students admitted to the program who enrolled last year, and the 12 students enrolled in the program right now, is largely explained by the fact that some students who are disappointed by their inability to access the opportunities in the Music B.M. often choose other majors or transfer out of UNC to a performance-based program at another institution. Since both of the new concentrations will offer considerable performance opportunities as well as lessons in specific instruments or vocal performance, the SOM projects much lower attrition rates.

These new concentrations have no immediate budget impact. A few new courses have been created to support the Latinx concentration, but compared to the previous Liberal Arts concentration, instrument-based coursework requirements have been reduced by 50%. Since these are by far the most expensive courses to deliver, the overall cost of instruction in PVA is likely to be reduced. More importantly, no new full-time faculty or adjuncts are required to deliver these new concentrations in the next several years. Due to overlapping coursework requirements across programs, these new programs result in a net increase of 2-5 course credit hours per semester. The School of Music currently offers approximately 1800 credit hours each semester, so this increase is less than 1%.

Assuming the program grows as the SOM suspects, they would seek to hire a high-profile specialist to coordinate the Latinx Concentration in the next two to three years, but no additional hires or other new resources are required to offer the concentration now. Consideration for such a hire in a future year would be done in accordance with standard processes within Academic Affairs.

## NORTHERN COLORADO

| Meeting Date:  | February 10, 2023   |   |
|----------------|---|---|
|                | Action Item   | ☐ Discussion Item ☐ Information Item  |
| Name of Item:  | Program Deactivations   | s for the AY 2023/2024 Catalog  |
| Responsible St | taff Member: Kirsten I  | Fleming, Provost & EVP for Academic Affairs   |
| 2023/2024 Cata | submitted a total of 10 re<br>log without replacement<br>wing the affected colleges | equests for major programs to be deleted from the Academic Year by a new or substantially modified program. The full list is provided as an and academic units, names and program types, enrollments, and a |
| Recommended    | d Action by BOT:  | ☐ Approval ☐ No Action Needed   |
| Change to Boa  | ard Policy Manual:  | ☐ Approval ☐ No Action Needed   |
|                |   | If yes, Section:  |
| Administrati   | ve Recommendation   | n (Motion):   |
|                | of Vice President of President  | 1/31/2023<br>Date<br>02/02/2023<br>Date   |



### Board of Trustees - Information Item Program Deactivations for the AY 2023/2024 Catalog

**Summary of Change:** Academic Units submitted a total of 10 requests for major programs to be deleted from the Academic Year 2023/2024 Catalog without replacement by a new or substantially modified program. The full list is provided as an attachment showing the affected colleges and academic units, names and program types, enrollments, and a rationale for each.

**Background:** Requests for program deletion typically originate from the academic unit in which the program is housed. When a request is approved through the curriculum process, the program is removed for all future academic year catalogs and the university admissions portal. Once a program is deleted from the catalog, no new students may enroll in it; however, any currently enrolled students have the option to complete the program under the following deadlines:

- for *undergraduate* degree and certificate programs, up to 6 years from the catalog year in which the student enrolled.
- for *graduate* degree and certificate programs, up to 8 years from the catalog year in which the student enrolled.

For Higher Learning Commission (HLC) purposes, programs deactivated from the catalog are not officially closed until the above deadlines have been met or program enrollments reach zero, whichever comes first. As part of the curriculum approval process, we secure approval from the HLC to stop accepting new students and remove the program from our catalog. Once enrollments in a deactivated program reach zero or the relevant deadline is reached, we notify HLC that the program has been fully closed.

For Colorado Department of Higher Education (CDHE) purposes, a program is considered closed when it is removed from our catalog and is no longer accepting new enrollments. We notify the CDHE when we have approved programs for deactivation, and the programs are removed from the SURDS database and CDHE website.

Enrollment & Budget Impacts: The attachment provides current enrollments (if any) and a brief rationale for program deactivations that have been approved for the AY 2023/24 catalog and were not tied to the creation of a new program. Please note, programs deleted as part of the creation of a new program are not included on the attachment. Where relevant, those programs are noted on one of the new degree or certificate program action items, or one of the new concentration program informational items submitted for this meeting.

In all cases included on this item, the budget impact is neutral or positive, as units will no longer need to offer very low-enrolled courses required only by students in the deactivated programs.

| HSS Economics Concentration HSS Geography, GIS, & Sustainability Concentration within Bachele degree HSS World Languages & Cultures Concentration within Bachele degree HSS World Languages & Cultures Concentration within Bachele degree HSS World Languages & Cultures Concentration within Bachele degree HSS World Languages & Cultures Concentration within Bachele degree  NHS Kinesiology, Nutrition, and Dietetics (previously named Sport and Exercise Sciences) degree  NHS Nursing Concentration within Master degree  Concentration within Master degree | Academic Unit              | Program Type          | Name   | <b>Enrollment Rationale</b> | Rationale   |
|---|----------------------------|-----------------------|--|-----------------------------|---|
|   | Communication & Journalism | Masters Degree        | Communication M.A.   | 0                           | Low enrollments/demand. The unit continues to   |
|   |                            |                       |  |                             | offer a Communication Studies B.A. and a Journalism B.A.                                      |
|   |                            | Concentration         | Economics B.A. – Public Policy Concentration   | 4                           | Low enrollments/demand for concentration  |
|   |                            | within Bachelors      |  |                             | specific courses; the Economics B.A. continues to   |
|   | v. GIS. & Sustainability   | Concentration         | Geography B. A. — Secondary Teaching Concentration -   | _                           | ow enrollments: LINC continues to offer   |
|   | ,                          | within Bachelors      | Licensure: Social Studies (Grades 7-12)  | I                           | secondary education licensure degrees in History  |
|   |                            | degree                |  |                             | and Mexican-American Studies.   |
|   | guages & Cultures          | Concentration         | Asian Studies B.A. — K-12 Chinese Teaching   | 0                           | Low enrollments/student demand.   |
|   |                            | within Bachelors      | Concentration - Licensure: World Languages (grades K-  |                             | The unit continues to offer a K-12 Spanish Teaching   |
|   |                            | degree                | 12)  |                             | Concentration - Licensure (gradesK-12). It also   |
|   | guages & Cultures          | Concentration         | Asian Studies B.A. – K-12 Japanese Teaching  | 2                           | offers an Asian Studies B.A Liberal Arts  |
|   |                            | within Bachelors      | Concentration - Licensure: World Languages (grades K-  |                             | Concentration and a Spanish B.A Liberal Arts  |
|   |                            | degree                | 12)  |                             | Concentration.  |
|   | y, Nutrition, and          | Concentration         | Physical Education (Grades K-12), Post Baccalaureate   | μω                          | Not reauthorized in 2018/19 CDE review.   |
|   | previously named           | within Bachelors      | Licensure  |                             | Miscommunication between School of Teacher Ed   |
|   |                            | degree                |  |                             | and College of NHS led to program listing remaining in catalog. Teacher Ed worked with CDE    |
|   |                            |                       |  |                             | may complete PE Licensure as second bachelors degree.   |
|   |                            | Graduate Certificate  | Adult Gerontology Acute Care Nurse Practitioner (AGACNP) Graduate Certificate Program (Non-Degree)         | 0                           | In Spring 2020, the Graduate School and the School of Nursing (SON) assessed offerings and    |
|   |                            |                       |  |                             | reprioritized resources among graduate nursing programs. These programs have not admitted new |
|   |                            | Concentration Wasters | Nursing D.N.P. – Adult Gerontology Acute Care Nurse  Practitioner (AGACNP) Concentration (Post Bachelor's) | 7                           | students since 2019 and the remaining students are expected to complete within two years. SON |
|   |                            | degree                |  |                             | continues to offer a variety of specialized, graduate   |
|   |                            | Concentration         | Nursing M.S.N. – Adult Gerontology Acute Care Nurse  | 10                          | level nursing programs, including the Emergency   |
|   |                            | within Masters degree | Practitioner (AGACNP) Concentration  |                             | Nurse Practitioner program approved by the Board in November 2022.                            |
|   |                            | •                     |  |                             |   |
|   |                            | Concentration         | Art and Design B.A. – Art History Concentration  | lω                          | I am and in a fact the constitution of the constitution to                                    |
|   |                            | within Bachelors      |  |                             | Low enrollments and lack of faculty expertise to  |