


LUNA COMMUNITY COLLEGE & NEW MEXICO HIGHLANDS UNIVERSITY
Science, Technology, Engineering and Mathematics (STEM) Memorandum of Understanding
August 2014

1. Purpose

The intent of this agreement between Luna Community College (LCC) and New Mexico Highlands University (NMHU) is to establish a collaborative articulation between the Science, Technology, Engineering and Mathematics (STEM) programs in Las Vegas, New Mexico. This articulation agreement will be reviewed periodically and updated as needed.

This understanding is intended to: 1) further the development of integrated programs of study and support services in STEM disciplines at each institution, leading to student completion of an Associate of Science (AS) or Associate of Applied Science (AAS) degree from LCC and a Bachelor of Science (BS) or Bachelor of Arts (BA) in a STEM discipline from NMHU, and, 2) enable the institutions to efficiently provide course offerings to a larger and more diverse set of students in the region.

The LCC and NMHU STEM programs of this articulation agreement are:

LCC STEM Programs	 NMHU STEM Programs
Computer Science (AAS)	Computer Science- concentration in Software/Hardware Systems (BS)
	Computer Science with an Individualized Concentration (BS or BA)
	Math and Computer Science for Secondary School Teachers (BS or BA)
General Science (AS)	Biology (BS or BA)
	Biology, Teaching Concentration (BA)
	Chemistry, Biochemistry Concentration (BA)
	Chemistry (ACS-approved BS/BS)
	Conservation Management (BA)
	General Science Degree for Teachers (BA/BS)
	Environmental Geology, Environmental Geology Concentration
	Environmental Geology, Water Resources Track
	Environmental Geology, Environmental Science & Management Track
	Forestry, Forestry Management Concentration
Forestry, Wildland Fire Concentration	

2. The STEM Paired Degree Option

The STEM paired-degree option provides students with an integrated, seamless curricula and system of services leading to an AS or AAS at LCC, and eventually a BS or BA at NMHU. Student participants will be advised to follow defined programs of study. LCC and NMHU will provide support services and advisement to facilitate the timely completion of both associate's and bachelor's degrees.

Students in the paired-degree option can exclusively enroll at one institution or concurrently at both during a semester. Certain courses, identified in the LCC/NMHU STEM Transfer Guide, may be taken from either institution. The transfer guide defines course work that will articulate to both institutions and additional courses which are required by each program.

The following three pathways may be pursued by students participating in the paired-degree option:

- The *Transfer Degree Pathway (2+2)* is for students who have completed an associate's degree from LCC and wish to complete a bachelor's degree from NMHU.
- The *Integrated Degree Pathway* is for students who wish to pursue an associate's degree from LCC while simultaneously completing the requirements for a bachelor's degree from NMHU in partnership with LCC.
- The *Inverted Degree Pathway* is for NMHU students pursuing NMHU degree requirements who also want to complete associate's degree requirements at LCC.

3. The STEM Single/Traditional Degree Option

Students may complete articulated STEM core courses at either institution while pursuing a degree at their home institution.

4. Participation in the Paired Degree Option

Students must satisfy admission and degree requirements of both institutions to participate in the paired degree option (i.e. grade point average, placement tests). Some degree programs may have additional enrollment restrictions, physical requirements or eligibility criteria.

The student shall be considered a program participant at both institutions. The NMHU catalog in effect in the semester of program entry will be considered the "catalog of record" which governs the students' degree requirements. NMHU students may switch catalogs when revised curricula appear. At LCC, the catalog in effect upon the student's term of matriculation (first term enrolled at LCC) is the student's catalog of record. A student may graduate under their catalog of record as long as all graduation requirements specific to any program are completed within four (4) years of their term of matriculation. Students not graduating within four (4) years of their term of matriculation will be required to graduate and meet all requirements of the catalog that is in effect during their term of graduation.

Students can enroll in courses at either or both institutions during any semester. Students who enroll in over 18 credit hours in any one semester are responsible for obtaining approval from the appropriate academic officer at each institution.

5. Curriculum and Programs of Study

In accordance with state law (Chapter 21, Article 1B NMSA 1978), NMHU agrees to transfer all credit identified in the LCC-NMHU articulation agreements and all courses that are part of the New Mexico General Ed Core Course Transfer Curriculum. Communication between faculty of the two institutions, regarding content and rigor in the Science and Math courses, will be facilitated by the STEM liaison personnel. Final examinations will utilize the same test when standardized tests exist (ex. American Chemical Society Chemistry final). Faculty teaching equivalent courses at both institution will be encouraged to utilize common final exams.

LCC and NMHU will prepare transfer guides that describe specific requirements for STEM degree completion by students in the curricula of this agreement. Transfer guides will include respective institutional curricula and other requirements for degree programs. Transfer guides will be updated as curricula and/or requirements change at either institution.

There is no set limit to the number of credits that can be earned at LCC and applied to a bachelor's degree at NMHU. However, paired degree students must satisfy degree requirements at both institutions; including specific major and general education requirements for degrees and upper division credit hour requirements. Specific paired degree program requirements will be clearly described in transfer guides to avoid ambiguity and confusion.

Additional requirements, as noted in the transfer guide, must be satisfied. Students transferring with an AS from LCC will have the NMHU proficiency, extended core and minor requirements waived. However, all other university requirements,

including the university's state mandated 35-hour common core, program requirements, residency and the 45 upper-division credit requirements must be met before granting of the BS or BA.

Students transferring with an AAS in Computer Science from LCC will have their transfer work evaluated on a course by course basis to ensure fulfillment of the state-mandated core. All other university requirements, including language proficiency, program requirements, residency and the 45 upper-division credit requirements must be met before granting of the BS or BA.

The paired-degree curricula specify the requirements for completion of an AS/AAS from LCC and a BS/BA from NMHU. Each STEM program of study will be agreed upon by the respective faculty at LCC and NMHU. Changes in specific coursework will have to comply with institutional standards and be approved through established institutional processes. Changes that affect the STEM programs of study will be communicated to the other institution by the Chief Academic Officer.

6. Textbooks

Faculty that teach core STEM courses will attempt to use similar textbooks in equivalent courses at both institutions.

7. Advisement

Advisers at LCC will inform students of the opportunities to complete an AS or AAS degree that facilitates transfer into a STEM bachelor's degree program at NMHU. Students who intend to transfer to NMHU to pursue a Bachelor's of science degree will be advised to integrate upper level courses from NMHU while pursuing their LCC AS or AAS degree. Students from both institutions are encouraged to take aligned courses at either institution in order to meet scheduling and/or financial needs.

STEM advisement will be collaboratively developed with STEM faculty and the advisement department at each institution. STEM liaisons at each institution will participate in training sessions at both institutions. Liaison personnel will identify the barriers, issues, and opportunities for improving advisement of paired-degree and transfer students.

While the students will benefit from the combined advising of both institutions, the adviser from the degree-granting institution shall be considered the adviser-of-record and will facilitate registration. Students that choose the Integrated Degree will be responsible for reviewing their planned schedules each semester with an adviser from each institution to assure completion of degree requirements.

Students will be advised that they must provide official transcripts for all courses not taken at their degree-granting institution (home institution) to the registrar of the home institution at the end of each semester.

8. Tuition and Fees

Tuition and fees will be assessed in accordance with published rates and procedures by each institution. Refund policies of both institutions remain in effect. Arrangements for deferred payment or early registration pre-payments are determined by each institution.

9. Financial Aid

Students enrolled through the paired degree option may apply for student financial aid. A consortium agreement between the two institutions allows students to continue to receive financial aid funds while studying at a school other than his or her "home" institution. Eligibility for assistance is determined by the standard aid application process and will be processed by the degree-granting (home) institution. Students must complete and sign a consortium agreement in order to use their financial aid at both institutions.

Students enrolled through the paired-degree option may apply for institutional and state scholarships. Scholarship awards

will be considered a form of financial aid and incorporated into the aid packaging policy of the home institution.

10. Scheduling

The offices of the Registrar at each institution will continue to work to align the academic calendars (i.e. beginning, mid-term, final, and holiday break dates) to the maximum extent possible to create a more student-, child- and family-centered community.

Scheduled times for certain, commonly required STEM courses (i.e., Calculus I, General Chemistry I & II, and General Biology I & II) will be at the same days and times from year to year at each institution. Each institution will try to offer these courses at different times and/or days to maximize accessibility of courses for students with unique personal schedules. Department chairs shall be responsible for communication within and between institutions to minimize course conflicts and schedule adjustments shall be communicated to the offices of the Registrar, departments and deans at both institutions to ensure the resources are available. The STEM liaison personnel at each institution shall assist the department chairs to encourage communication between the institutions regarding class schedules.

Each STEM department at each institution shall establish and share with the other institution a long-term schedule (2-years in advance) of core and elective courses by semester.

11. Shared Faculty Resources

Each institution shall communicate their faculty resource needs and share their faculty with specialized expertise with the other institution. For example, faculty teaching aligned courses at each institution might consider team teaching, guest lecturing, shared field trips and/or teaching as adjunct faculty across institutions. Coordination of shared faculty resources will be a responsibility of STEM liaison.

12. Shared Facilities/ Equipment

STEM faculty shall be encouraged to share laboratory and field equipment when practical. Student experiences with state-of-the-art laboratory and field equipment and practices will be shared between institutions to avoid duplication of efforts and to enhance student learning beyond that which either institution can provide alone. Resource adjustments such as sharing of classrooms and laboratories shall be communicated to the offices of the Registrar at both institutions to ensure that the resources are available.

STEM faculty from each institution will encourage their students to attend seminars, research talks, non-course field trips, and student club activities at both institutions and in the broader community.

13. Recruitment

LCC and NMHU will collaboratively disseminate materials to attract regional high school students to STEM disciplines. LCC will promote post-associate education into STEM programs at NMHU.

14. Professional Development

Cross-institutional faculty development will be encouraged. Each institution will invite faculty from both institutions in faculty development activities that enhance teaching effectiveness and/or student success.

15. Grant Writing

Administration, staff and faculty will be encouraged to collaborate in acquisition of further STEM education and research funding because of the shared missions, demographics and geographic proximity of the two institutions.

16. Communication

The Vice-Presidents of Academic Affairs of each institution will designate a STEM liaison person responsible for facilitation of this partnership's development. Additionally, the institutions may develop other resources to enhance and facilitate programs' articulations and transfer of STEM students. Other academic programs may be added to this articulation. New agreements can be proposed by either institution to include STEM programs not in this agreement and shall be presented by the liaisons to the Chief Academic Officers for review, consideration, and endorsement.

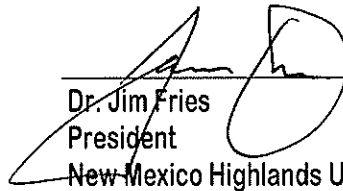
STEM liaison designees at each institution shall meet quarterly to review program successes and barriers. In accordance with the Family Educational Rights and Privacy Act (FERPA) and with the assistance of the NMHU Office of Institutional Effectiveness and Research and the LCC Office of Institutional Research & Development, NMHU and LCC will annually exchange academic progress reports on paired-degree and transfer students. This exchange of information will provide data for both institutions to 1) improve the articulation of curricula, 2) refine student advisement and keep personnel current on programs at the respective institutions, and 3) enhance student success in STEM fields. The STEM liaison at each institution shall be responsible for sharing the results with the institution's Chief Academic Officer.



8-11-14

Dr. Pete Campos
President
Luna Community College

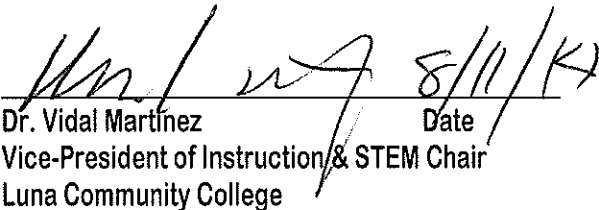
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8/11/14

Dr. Jim Fries
President
New Mexico Highlands University

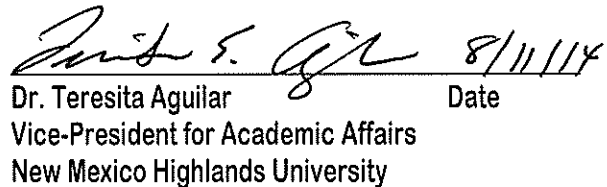
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8/11/14

Dr. Vidal Martinez
Vice-President of Instruction & STEM Chair
Luna Community College

Date



8/11/14

Dr. Teresita Aguilar
Vice-President for Academic Affairs
New Mexico Highlands University

Date