

**Mission** *New Mexico Highlands University is a public comprehensive university serving our local and global communities. Our mission is to provide opportunities for undergraduate and graduate students to attain an exceptional education by fostering creativity, critical thinking and research in the liberal arts, sciences, and professions within a diverse community.*

**Vision** *Our vision is to be a premier comprehensive university transforming lives and communities now and for generations to come.*

Department/Program: **CMS/Comp Sci**

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Strategic Goals for 2021 Planning for FY19-FY21	Unit Goals	Unit Actions/Strategies	Measurable Outcome(s)	Person(s) Responsible	Indicators and Time Frame for Assessment	Date(s) for Review
<p><b>1. Highlands University will achieve academic excellence, academic integration and student success.</b></p>	<ol style="list-style-type: none"> <li>1. Monitor and track first and second year student progress.</li> <li>2. Provide leadership roles for upper divisions students</li> <li>3. Monitor and track upper division student progress.</li> <li>4. Restructure the CS101 Living with Computers class to encourage students to consider CS as a major</li> <li>5. Invest in dept. reputation through professional development opportunities (including opportunities for adjunct faculty)</li> <li>6. Determine employability profile for CS graduates in graduate and undergraduate programs</li> </ol>	<ol style="list-style-type: none"> <li>1. Administer series of milestone challenges during first and second years in program</li> <li>2. Establish student mentoring and tutoring schedule.</li> <li>3. Require students to develop portfolio of activity (e.g., sample code, project reports, etc.). Guidelines for portfolio will also be developed.</li> <li>4. Encourage CS101 to be taken as early as possible in the college career (freshman or sophomore), so that undecided, undeclared students may consider pursuing a career in technology</li> <li>5. Increase levels of scholarly engagement (conferences, networking and establishing contacts in Industry)</li> <li>6. Conduct survey of former graduates within last 5 years. Survey instrument to be determined.</li> </ol>	<ol style="list-style-type: none"> <li>1. Progressive improvement from first year to end of second year (e.g., after exiting cs350)</li> <li>2. Logged tutoring hours</li> <li>3. Portfolio assessments</li> <li>4. No. of students changing major from undeclared to CS, CS undergrad enrollment in general</li> <li>5. Composite reputation metric; No. of posters &amp; papers presented and published; Contacts made</li> <li>6. collect ratings on field of employment, job satisfaction, salary range, fit between exp in program to job duties, geo location of employment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Dept. Chair, CS Faculty</li> <li>2. CS Faculty</li> <li>3. LANL Coord.</li> <li>4. Dept. Chair, CS Faculty</li> <li>5. Dept. Chair, CS Faculty</li> <li>6. LANL Coord.</li> </ol>	<ol style="list-style-type: none"> <li>1. &gt;60% Challenge Pass Rate, 4x/semester</li> <li>2. ARMAS CS student data collection/trends, 1x/semester</li> <li>3. External Advisory Committee Critique, 1x/year</li> <li>4. Every Academic Term</li> <li>5. Fall 2021</li> <li>6. overall high satisfaction rating updated and assessed annually</li> </ol>	<ol style="list-style-type: none"> <li>1. Annual</li> <li>2. Annual</li> <li>3. Annual</li> <li>4. Annual</li> <li>5. Annual</li> <li>6. Annual beginning at end of Spring 2021</li> </ol>

Action Status w/Description (Achieved, Ongoing, Stop)	Completion Date(s)	Recommendation(s)	Challenge(s)	Budget Consideration (Yes / No)
<p>- Ongoing</p>		<p>- Enrollment data is 2016-2021 currently being collected. Ms. Johnsen, Mr. Bhutta and Dr. Gallegos were both active at conferences and workshops.</p> <p>Dr. Gallegos secured a National Science Foundation RAPID COVID-19 grant for the study of the corona virus on the Navajo Nation. The grant funded five graduate students for one year. Myself and two Co-PIs are funded for one summer of research. The grant has created new opportunities with other universities for larger grant proposals due in the spring.</p> <p>The CS discipline continues to grow and place graduate students at both LANL and SNL.</p> <p>Many undergraduate students continue their studies in the MACS program upon graduation.</p> <p>Our undergraduate and graduate student cohorts continue to thrive and grow steadily.</p> <p>The National Science Foundation S-STEM grant continues to attract STEM undergraduate students into data science related research in the computer science discipline. These students receive training in the field of data science and machine learning as applied to STEM related research.</p>	<p>- Currently, the number faculty members within the department is too few to properly cover all graduate and undergraduate courses.</p> <p>The ability to do large scale or computationally heavy research does not exist at NMHU. This is because we have no super computer on campus.</p> <p>The computers in the computer labs are over twelve years old. This presents a huge problem for teaching many of upper division undergraduate and graduate courses.</p> <p>The salary structure at NMHU does not allow our CS discipline to attract good candidates. The starting salaries are not competitive with both state and national academic levels. Additionally, they are not competitive with industry standards.</p> <p>The recruiting for both undergraduate and graduate programs are almost non existent. Most of our students are recruiting via word of mouth.</p>	<p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p> <p>No</p>

		<p>The computer science discipline will begin to utilize the super computer, Discovery, at NMSU. This is part of a National Science Foundation grant secured by Dr. Sarah Corey-Rivas. It will allow both graduate and undergraduate students to work on large scale/computational heavy problems with the necessary tools for the research to be successful.</p> <p>The faculty in the CS discipline have successfully transitioned to synchronous and asynchronous courses. This opens the door to new opportunities within the CS discipline. A silver lining in the COVID-19 pandemic.</p> <p>Our discipline is currently beginning to plan for hiring of a new PhD Professor in CS, and securing a strong contingent faculty member for our 1000 and 2000 level courses.</p>		
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<p><i>2. Highlands University will achieve strategic enrollment management.</i></p>	<p>1. Target a 10% increase in declared CS majors and &gt;60% retention rate.                      2. Enhance public profile of CS department to increase visibility                      3. Direct recruitment of graduate students into Masters program.</p>	<p>1. Refactor and simplify undergraduate degree program and do active recruitment at local high schools and comm. college.                      2. Reestablish/refactor CS website to showcase our capacity for student success (provide case studies from former graduates – “Where are they now...?” stories) and attract interest in program. Website should be a campus exemplar.                      3. Development of two focus areas for graduate study: data science and cyber security</p>	<p>1. Measure size of Fr, Soph., Junior and Sr. Cohorts                      2. Measure activity of CS websites (hits/inquiries)                      3. Measure class enrollment numbers for new CS focus classes</p>	<p>1. CS Faculty                      2. CS Faculty                      3. CS Grad. Coord</p>	<p>1. Was 10% growth reached for Fr. Cohorts AY 2020-21                      Was 60% retention achieved for Soph, Jun, Sr Cohorts AY 2020-21                      2. Analysis of CS website activity data by Ext. Adv. Committee, CS Faculty/ Staff/Students Fall 2020/Spring 2021                      3. &gt;10% Growth Class Enrollment Fall 2020-Spring 2021</p>	<p>1. 1x/yr.                      2. 2x/yr.                      3. 1x/yr.</p>
<p><b>Action Status w/Description (Achieved, Ongoing, Stop)</b></p>	<p><b>Completion Date(s)</b></p>	<p><b>Recommendation(s)</b></p>	<p><b>Challenge(s)</b></p>	<p><b>Budget Consideration (Yes / No)</b></p>		
<p>- Ongoing</p>		<p>- Program / curriculum will be refactored and made part of CS program review fall 2019.                      - Website for CS will be complete Fall 2021</p>	<p>-</p>		<p>- yes</p>	

Strategic Goals for 2020 Planning for FY18-FY21	Unit Goals	Unit Actions/Strategies	Measurable Outcome(s)	Person(s) Responsible	Indicators and Time Frame for Assessment	Date(s) for Review
<p>3. <i>Highlands University will achieve a vibrant campus life.</i></p>	<p>1. Facilitate CS students social support system by recharging the CS club. 2. Increase visibility and service to campus community.</p>	<p>1. Advise, participate in, and encourage CS club activities and agendas (e.g., sponsor local hackathons, support participation in ext. hackathons). 2. Co-plan and support informational presentations open to campus in STEM related work (CS, ENG, MATH, PHYSICS).</p>	<p>1. No. of student members in CS Club, No., description, and attendance of sponsored events. 2. No. of STEM talks held, description, attendance, and short evaluation survey data from participants.</p>	<p>1. CS faculty sponsor 2. Chair, CS Faculty</p>	<p>1. End of Fall 2020/Spring 2021 including Spring 2017 membership growth and event participation. 2. 2 presentations per semester beginning in Spring 2021. Attendance, and survey data collected at end of Spring 2021</p>	<p>1. 1x/yr. 2. 1x/yr.</p>
<p>Action Status w/Description (Achieved, Ongoing, Stop)</p>	<p>Completion Date(s)</p>	<p>Recommendation(s)</p>	<p>Challenge(s)</p>	<p>Budget Consideration (Yes / No)</p>		
<p>- Ongoing</p>		<p>- CS club was re-chartered after limited activity during f FY17-18. New student leadership should drive more activity.</p>	<p>-</p>	<p>-</p>		

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<p>4. <i>Highlands University will be a community partner.</i></p>	<p>1. Provide information services to community                  2. Offer a basic computing skills class for the community</p>	<p>1. Develop and share technology related information with community organizations through CS website.                  2. Develop offering, (potential evening course)</p>	<p>1. # of published information on the CS website.                  2. Community student satisfaction scores</p>	<p>1. CS Faculty, LANL coord.                  2. Adjunct Faculty &amp; Chair                  3.</p>	<p>1. 2-3 published articles per semester. Assessed 1x/yr.                  2. Summer 2021</p>	<p>1. 1x/yr.                  2. AY2021</p>
Action Status w/Description (Achieved, Ongoing, Stop)	Completion Date(s)	Recommendation(s)		Challenge(s)		Budget Consideration (Yes / No)
<p>- Ongoing/stop</p>		<p>- Resources for facilitating community level courses are limited and may not be practical. Community level courses may not be possible under current conditions.</p>		<p>-</p>		

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<p>5. <i>Highlands University will achieve technological advancement and innovation.</i></p>	<p>1. Increase public partnerships with leaders in industry and research                      2. Increase funded research                      3. CS Dept. will gain new computers for the CS Labs, and faculty will have administrative privileges on all machines.                      4. Increase no. of online offerings</p>	<p>1. Employ external advisory committee to establish internships/activities for faculty and students.                      2. Grant proposal writing                      3. Find the necessary funds required to allow the dept. to keep up with the latest technology that our students require in order to assure an even higher level of quality education.                      4. Develop offerings</p>	<p>1. # of internships, # of faculty collaborators                      2. # of grant proposals submitted a) rejected, b) funded, c) current                      3. Computers that are in good working condition in our labs result in higher confidence in the abilities of our dept. and of NMHU's commitment to a high level of technological advancement.                      1. 4. No. Students enrolled</p>	<p>1. LANL coord.                      2. CS Faculty                      3. Dept. Chair                      4. Faculty &amp; Chair</p>	<p>1. increase no. of internships and collaborative activity to baseline of 10, assessed annually.                      2. 1-2 proposals submitted every two years, assessed bi-annually                      3. Critique by CS Students                      4. Fall 2021</p>	<p>1. 1x/yr.                      2. Spring 2021.                      3. 2x/year                      4. AY2021</p>
Action Status w/Description (Achieved, Ongoing, Stop)	Completion Date(s)	Recommendation(s)	Challenge(s)	Budget Consideration (Yes / No)		
<p>- Achieved/Ongoing</p>	<p>New computers: fall 2021</p>	<p>- Dr. Gallegos and Ms. Johnsen will be actively recruiting members from outside industry for advisory board membership as well as establishing communication channels for internship / employment opportunities.                      - Dr. Medina, Dr. Gallegos worked with Cathryn Brooks-Williams at UNIDOS beginning in summer 2018 specifically for consultation on online course design, assessment, and build processes for deploying online courses in the program.</p>	<p>- Time!</p>	<p>- yes</p>		

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<p>6. <i>Highlands University will achieve enhanced communication and efficiency.</i></p>	<p>1. establish more direct faculty advising for cs majors</p>	<p>1. Discuss current advising model and adjust as needed to fit both grad/undergrad programs.</p>	<p>1. No. of students being advised by CS faculty in Banner and frequency of student/faculty advisement</p>	<p>1. CS Faculty</p>	<p>1. 90-100% cs majors are regularly advised by CS faculty. Assessed annually</p>	<p>1. 1x/yr.</p>
Action Status w/Description (Achieved, Ongoing, Stop)	Completion Date(s)	Recommendation(s)		Challenge(s)		Budget Consideration (Yes / No)
<p>- Ongoing</p>		<p>- Some improved communication has occurred between advising/recruitment depts. and cs faculty and cs majors. More students are aware of the program requirements and tend to maintain clear communication with faculty on needed course reqs and interests.</p>				