



**DIFFERENTIAL TUITION REVIEW**  
**(Justification for units with existing differential tuition)**

**College/School: Engineering    Department/Program: All undergraduate programs**

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**Level:** Undergraduate  Graduate

**Differential Tuition (please show as an amount per student credit hour):**

<b>Student Type</b>	<b>Current Differential</b>
Residents	\$15/SCH
Non-Residents	\$15/SCH
Other	\$

**Effective Academic Year: AY 2015-16**

**Rationale for Existing Differential Tuition:** *Please provide a detailed explanation on the reasoning for the differential tuition. Please refer to policy **UAP 8210 2.2** for qualifying justifications for differential tuition.*

In recent years the costs of providing high-quality engineering and computer science programs have increased dramatically across the country. This is true for the School of Engineering at UNM as well as we compete with other universities to hire and retain faculty, to provide excellent laboratory and computing facilities, and to ensure that our undergraduate students have access to the best classroom facilities and technology. As a consequence, the School of Engineering is facing increasing difficulty in continuing to deliver the high-quality engineering and computer science undergraduate education that our students deserve.

The undergraduate professional engineering and computer science programs in the SoE are accredited by one of the accreditation commissions under the Accreditation Board for Engineering and Technology, Inc. (ABET). Our professional construction management program is accredited by the American Council for Construction Education (ACCE) and we will soon be transitioning to ABET accreditation for this program as well. Such accreditation provides assurance that our undergraduate engineering, construction management, and computer science programs meet the quality standards established by the profession for which the program prepares its students. The standards set by this accreditation is a major reason why engineering and computer science salaries are the highest among all undergraduate majors. (See details below.)



Our accreditation mandates measures and outcomes that require significant financial investment to establish and maintain. For example, ABET accreditation requires a number of laboratory courses in each of the School's disciplines. Such laboratory courses require expensive equipment and focused one-on-one interactions with faculty and teaching assistants. In addition, the School provides extensive, detailed advisement for students to ensure they are able to navigate the ABET-accredited and ACCE-accredited curricula, with their respective large number of required courses. This mandate means that SoE has to strive to provide a lower student to advisor ratio than elsewhere in the university.

Recently the School of Engineering has implemented some innovative new approaches to undergraduate education, for example, the new ENG 195/Math 116 course, team taught with engineering and math faculty, which accelerates students through their math background and allows earlier entry into courses that formerly required calculus. The initial indications are that this is increasing engineering student success. This success comes at the cost of additional instructional resources, e.g., more teaching assistants and laboratories. We plan to build upon this success by replicating this model in other engineering and computer science courses.

An important part of this picture is that engineering and computer science graduates will be well-positioned to secure high paying jobs when they graduate from UNM. There are numerous web sites that publish data on average starting salaries of undergraduates, broken down by undergraduate major. The undergraduate disciplines with the highest starting annual salary are Engineering and Computer Science, with average starting salaries in excess of \$65,000/year. The overall average annual starting salary for all college majors was just over \$50,000, showing that averages for Engineering and Computer Science exceed the overall average by more than \$15,000/year. In addition, available data indicates that mid-career salaries for engineering and computer science professionals exceed \$110,000, indicating that our graduates can expect significant increases in salary during their careers.

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**Market Analysis:** *Please provide detailed information on whether the college/school or department/program cost of instruction is markedly higher than the university average program costs or market conditions warrant additional tuition.*

Most engineering and computer science programs nationwide charge differential tuition because of the additional costs of providing a high-quality engineering/computer science education compared to other majors. Additional costs of engineering/computer science education include: Laboratory equipment acquisition, laboratory supplies, computing facilities, technicians and laboratory personal to maintain laboratory equipment, safety requirements for laboratories, higher salaries of engineering faculty compared to other disciplines, and increased advising costs due to engineering accreditation requirements. Perhaps the best indicator of the increased cost of delivering engineering education can be found in the analysis of engineering differential tuition at our peer institutions. Of the 22 institutions on the list, all but four charge differential tuition for engineering, and all of those that have differential tuition charge amounts larger than what UNM undergraduate engineering and computer science students pay. Undergraduate students in SoE pay \$360/year in differential tuition, far below the median differential tuition at our peer institutions which is \$1293/year. Even with differential tuition, students' tuition costs at UNM remain below all but four of our peers.



**Student Consultation:**

*Please provide an explanation on how you communicate the existing differential tuition to incoming students in your program.*

Engineering differential tuition is communicated to students through the UNM Bursar's Office web site where tuition rates are published.

**Accountability/Budget Information:** *Please provide budgetary information about how the revenue generated is expensed. It is highly encouraged to set aside a portion of the revenue generated by the differential for financial aid (see policy UAP 8210 2.2.2).*

**Financial Aid Set Aside Amount:** 20%

**Proposed Annual Revenue**

Differential Tuition (per student credit hour)	\$15.00
Projected # of Student Credit Hours (all student credit hours taken by student majors in the program).	50,000
<b>Total Revenue</b>	<b>\$750,000</b>

**Proposed Annual Expenditures**

Financial Aid Set Aside (%)	\$150,000 (20%)
Faculty Expense	\$200,000 (including lecturers & adjuncts)
Advising Personnel	\$221,400
Support Staff Expense	\$175,000 (Teaching Assistants & Tutors)
Operating Expenses	\$3,600
<b>Total Program Costs</b>	<b>\$750,000</b>

*Please provide a detailed explanation on how the revenue is used for this program:*

20% of the revenue will be devoted to need-based financial aid. Faculty expenses will include lecturers and part-time faculty for undergraduate instruction. The advisement personnel include 9 advisors (1@ 1FTE, 1 @ .5 FTE as well as 7 funded 35% on the differential budget and 65% on the individual department budgets) and a Manager (63% on differential & 37% on other budgets). ~\$175,000 will be used to hire additional teaching assistants and tutors for undergraduates. ~\$3,600 will be used for supplies associated with the tutoring program.



**Student Access and Affordability:** *Please explain how student access and affordability has been addressed.*

The 20% financial aid set-aside is used to offset the differential tuition paid by SoE students with demonstrated need. So differential tuition does not affect the affordability for students with demonstrated financial need.

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**Peer Comparison Chart:** *Please complete the Excel peer comparison spreadsheet. If the peer institutions listed does not have a similar college/school or department/program add an institution that most closely resembles your unit. Please note this adjustment below.*

**See attached spreadsheet with 2018-19 Tuition and fees at SoE Peer Institutions.**

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**Other Information:** *Please provide any additional information that supports the continuation of the differential tuition.*

Differential tuition for undergraduate students has been in place in SoE since FY 2016. The use of the revenue has been in accordance with the original proposal, and is the same as we propose for the future. Please see the attached table titled SoE Undergraduate Differential Tuition that shows the expenditures for each of these categories over the last three fiscal years.



**Dean/Director Approval:**

**Printed Name:** Charles Fleddermann, Assoc. Dean, for Christos Christodoulou, Dean

**Signature:**  **Date:** 21 Sept 2018



the University of New Mexico

**2018-19 Tuition and Fees at SoE Peer Institutions**

**College: Engineering**

**Program: All undergraduate programs**

**Undergraduate Resident**

	<b>Resident</b>	<b>Tuition (1) and Mandatory Fees</b>		<b>Engineering Differential</b>	<b>Total Tuition</b>
	<b>University of New Mexico</b>	\$ 7,633		\$ 360	\$ 7,993
	<b>Peer Median</b>	<b>\$ 9,492</b>		<b>\$ 1,293</b>	<b>\$ 11,052</b>
1	Arizona State University	\$ 10,822		\$ 800.00	\$ 11,622
2	Florida International University	\$ 6,558		\$ -	\$ 6,558
3	New Mexico State University	\$ 6,686		\$ -	\$ 6,686
4	Oklahoma State University	\$ 9,330		\$ 3,828.00	\$ 13,158
5	Texas A&M University	\$ 10,908		\$ 2,074.00	\$ 12,982
6	Texas Tech University	\$ 8,768		\$ 1,638.00	\$ 10,406
7	The University of Tennessee (Knoxville)	\$ 13,006		\$ 1,536.00	\$ 14,542
8	The University of Texas at Arlington	\$ 10,298		\$ 240.00	\$ 10,538
9	The University of Texas at Austin	\$ 10,112		\$ 940.00	\$ 11,052
10	The University of Texas at El Paso	\$ 6,528		\$ 384.00	\$ 6,912
11	University of Arizona	\$ 12,248		\$ 1,800.00	\$ 14,048
12	University of California-Riverside	\$ 15,601		\$ -	\$ 15,601
13	University of Colorado-Boulder	\$ 12,532		\$ 3,456.00	\$ 15,988
14	University of Colorado-Denver	\$ 9,624		\$ 1,200.00	\$ 10,824
15	University of Houston	\$ 8,912		\$ 1,293.00	\$ 10,205
16	University of Iowa	\$ 9,492		\$ 2,949.00	\$ 12,441
17	University of Kansas	\$ 11,148		\$ 1,313.00	\$ 12,461
18	University of Missouri-Columbia	\$ 11,252		\$ 5,040.00	\$ 16,292
19	University of Nebraska-Lincoln	\$ 9,242		\$ 2,550.00	\$ 11,792
20	University of Nevada-Las Vegas	\$ 6,672		\$ -	\$ 6,672
21	University of Oklahoma-Norman Campus	\$ 8,810		\$ 1,440.00	\$ 10,250
22	University of Utah	\$ 8,382		\$ 840.00	\$ 9,222

(1) Tuition is based on full time status, (12 credit hours for undergraduate tuition per semester) Fall and Spring semesters

(2) Please indicate the peer's differential tuition based on the college/program your unit is comparing to.

### SOE Undergraduate Differential Tuition

Expenses	FY 2016	FY 2017	FY 2018	3 Yr Total	% of Total
Financial set aside (at least 20%)	180,144.00	181,804.50	166,792.50	528,741.00	22.2%
Lecturers/Adjuncts for UG classes	16,080.00	170,733.84	288,222.81	475,036.65	19.9%
UG Advising Personnel	0.00	11,546.46	61,348.38	72,894.84	3.1%
Support Staff (TAs,tutors, technicians) for UG courses/labs	112,426.46	695,939.63	467,862.70	1,276,228.79	53.6%
Operating Expenses	2,435.75	14,865.86	12,824.67	30,126.28	1.3%
<b>Total</b>	<b>311,086.21</b>	<b>1,074,890.29</b>	<b>997,051.06</b>	<b>2,383,027.56</b>	