

CHARACTERISITCS IN GRADUATE NURSING EDUCATION PROGRAMS

This update presents data for the 34 universities/colleges that offer one or more graduate nursing education programs. There were 37 programs that prepared graduates for licensure as advanced practice registered nurses (APRNs) and 75 other programs. Table 1 breaks down these programs by education model:

Table 1. Program Type by Education Model, 2021

Program Type	Master's Degree	Post-Master's Certificate	Post-Baccalaureate DNP	Post-Master's DNP	PhD in Nursing
Nurse Practitioner (n=28)	25	22	7	5	0
Clinical Nurse Specialist (n=2)	1	2	1	0	0
Nurse Anesthetist (n=5)	1	0	5	3	0
Nurse-Midwife (n=2)	1	1	1	1	0
Nursing Leader/Admin (n=23)	20	6	2	9	0
Nursing Education (n=23)	22	13	0	0	0
Nursing Informatics (n=3)	2	2	0	1	0
Clinical Nurse Leader (n=2)	2	0	0	0	0
Nursing Research (n=7)	0	0	0	0	7
Public Health (n=1)	0	0	1	1	0
DNP-No Specialty (n=10)	0	0	0	10	0
Other (n=6)	5	1	0	0	0

Note: n=number of programs. Programs can have multiple models of education.

The Texas Center for Nursing Workforce Studies (TCNWS) collected data in the 2021 Board of Nursing's (BON) Nursing Education Program Information Survey (NEPIS) that was available online as of October 4, 2021. The reporting period was academic year (AY) 2021 (September 1, 2020 – August 31, 2021) unless otherwise noted. TCNWS collaborated with the BON in the design and dissemination of the survey.

GRADUATE PROGRAM CHARACTERISTICS

Geographic Location of Main Campuses

Table 2 and Figure 1 present the location of the schools that offer a graduate nursing education program in Texas by geographic designation.

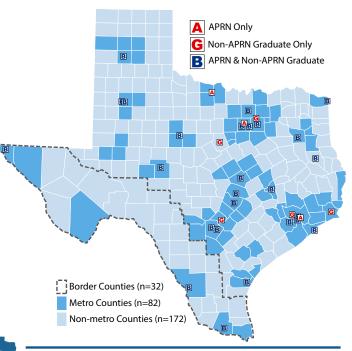
These 34 schools were located in 26 different counties in Texas.

The majority of schools (29 or 85.3%) were located in a metropolitan non-border county, 3 were located in a metropolitan border county, and 2 were located in a non-metropolitan, non-border county.

Table 2. Geographic Designation of Main Campuses, 2021

Geographic Designation	# of Schools	% of Schools
Metropolitan Border	3	8.8%
Non-Metropolitan Border	0	0%
Metropolitan Non-Border	29	85.3%
Non-Metropolitan Non-Border	2	5.9%

Figure 1. Geographic Location of Main Campuses, 2021



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Graduate Program Types Over Time

Table 3 displays the changes over time in the number of graduate nursing programs.

- Since 2016, the number of APRN programs has increased from a total of 35 to 37 programs.
- The number of nurse-midwife (NM) and nursing research programs has remained unchanged for the past 6+ years.
- The number of nursing administration/leadership programs have increased by 4 since 2016.
- The number of nursing education, nursing informatics, public health, and "other" programs have remained relatively unchanged for the past 6 years.
- In 2021, "other" programs included comprehensive, simulation, forensic nursing science, leadership in diverse settings (LeaDS), and advanced pain management.

Table 3. Number of Graduate Nursing Programs by Program Type, 2016-2021

	2016	2017	2018	2019	2020	2021
Nurse Practitioner	26	26	27	26	26	28
Nurse Anesthetist	4	4	5	3	5	5
Clinical Nurse Specialist	3	3	3	4	3	2
Nurse-Midwife	2	2	2	2	2	2
Nursing Admin/Leader	19	19	23*	22	22	23
Nursing Education	22	20	22	21	21	23
Nursing Informatics	4	3	2	2	3	3
Clinical Nurse Leader	5	5	5	6	4	2
Nursing Research	7	7	7	7	7	7
Public Health	1	1	0	1	1	1
**DNP-No Specialty	6	8	6	9	10	10
Other	7	7	6	7	5	6

^{*}Nursing leadership and nursing administration were combined into nursing leadership/administration for 2018.

Models of Education

Programs were also asked to select the models of education they provided for their graduate tracks (Table 1, Page 1).

- Nurse practitioner (NP) programs were most frequently offered as master's degrees or postmaster's certificates.
- Nursing education programs were only offered as master's degrees or post-master's certificates.
- All 7 nursing research programs offered a PhD in nursing, the only program type to offer a PhD in nursing degree.

Length of Curriculum for Non-APRN programs

In the 2021 NEPIS, the responding graduate schools were asked to report the length of their nursing curriculum in credit hours. An average was used when a range was provided. Table 4 shows the median length of curriculum by program type and model of education for non-APRN programs.

- The PhD programs in Nursing Research required a median of 60 credit hours.
- Clinical nurse leader programs, only offered as master's degrees in 2021, required the most hours among master's and post-master's certificate programs, with a median of 41.5 credit hours.
- Among Post-Master's DNP models of education, nursing informatics required the most credit hours with a median of 50.
- The one public health program required the most credit hours (69) for non-APRN programs.

Table 4. Median Length of Non-APRN Curriculum in Credit Hours, 2021

Program Type	Master's Degree and Post-Master's Certificate	Post- Baccalaureate DNP	Post- Master's DNP*	PhD in Nursing
Nursing Admin/Leader	36	45	40	-
Nursing Education	36	-		-
Nursing Informatics	36	-	50	-
Clinical Nurse Leader	41.5	-	-	-
Nursing Research	-	-	-	60
Public Health	-	69	48	-
DNP - No Specialty	-	-	42.5	-
Other	36			-

Note: "-" indicates these data were not available.

^{*}The post-master's DNP track does not prepare students for APRN licensure.



[&]quot;DNP-no specialty refers to DNP programs that don't identify any of the other categories as the focus of their program.

Online Availability of Graduate Programs

Programs were asked whether they offered nursing courses via online technology. Of the 34 schools that offered graduate nursing education programs:

- All of the graduate schools of nursing indicated that they offered nursing courses via online technology in the academic year 2021.
- 67.7% of master's/post-master's certificate programs offered the didactic content of all nursing courses entirely online, compared to 50.0% of DNP programs and 42.9% of PhD programs.
- 44.4% of DNP programs offered select nursing

- courses entirely online, compared to 28.6% of PhD programs and 38.7% of master's/post-master's certificate programs.
- 42.9% of PhD programs offered select nursing blendid/hybrid courses compared to 55.6% of DNP and 41.9% of master's/post-master's certificate programs.

APRN PROGRAM CHARACTERISTICS

Program Content

APRN programs were asked to choose which characteristics, of the following, apply to their program:

- includes a minimum of 500 separate, nonduplicated hours for each advanced role and population focus.
- content contains professional and legal implications of the advanced practice role.
- content contains separate courses in pharmacotherapeutics, advanced assessment, and pathophysiology at the graduate level.
- contains pharmacotherapeutics of all broad categories of agents.
- content contains advanced health assessment of all human systems.
- content contains pathophysiology across the lifespan.

All APRN programs indicated that the characteristics listed above applied to their program.

Diagnosis and Management Course

CNS programs were asked to report whether they offer a course on diagnosis and management, preparing the CNS to make medical diagnoses and medically manage individuals within the specialty area. This is one of the courses that CNS students are required to take to be approved for prescriptive authority by the Board of Nursing.

Both of the CNS programs offered a course on diagnosis and management and reported that the course was required.

Table 5. APRN Programs With Required Interprofessional Collaboration Courses, 2021

Program Type	Programs Participating	Range of required classes
Nurse Practitioner (n=28)	19	1-9
Nurse Anesthetist (n=5)	5	4-18
Clinical Nurse Specialist (n=2)	2	3-4
Nurse-Midwife (n=2)	0	-

Note: n=the number of programs

Interprofessional Collaboration

The 2021 NEPIS again included a question on interprofessional collaboration. APRN programs were asked to indicate the number of required nursing courses that offer clinical or simulation experiences for both APRN students and one or more types of other graduate level health professional students (Table 5). Other graduate level health professional students may include physicians, physician assistants, pharmacists, and others.

- Of the 28 NP programs, 19 (67.9%) had at least one required interprofessional collaboration course.
- The number of courses involving interprofessional collaboration ranged from 1 course to 18 courses.
- Nurse Anesthetist programs offered the most courses that offered interprofessional collaboration (up to 18), while nursing midwife programs did not offer any.



Population Focus Areas

A population focus area is the section of the population for which the student has been prepared to apply for APRN licensure to practice by the Texas Board of Nursing. Tables 6 and 7 list the number of schools that offered NP and CNS programs, respectively, in each population focus area.

- Family was the most commonly offered population focus area in NP programs, offered by 27 of the 28 NP programs.
- Women's health was the least commonly offered population focus area in NP programs, offered by only 1 NP program.
- Both CNS programs offered the adult/gerontology focus area, and 1 offered the pediatric focus area.

Schools were also asked if they offered any dual-track APRN programs.

■ Two schools reported offering dual-track programs in primary care for nurse practitioner students.

Curriculum Length

Table 8 shows the median APRN curriculum length in credit hours by program type, education model, and where applicable, population focus area.

- Post-baccalaureate DNP models had the longest curriculum overall, with median credit hours ranging from 64 to 112 hours.
- The one Nurse Anesthetist master's program had

Table 6. Nurse Practitioner Population Focus Areas, 2021

Nurse Practitioner (n= 28 program	15)
Population Focus Area	Number of Programs
Acute Care Adult/Gerontology	9
Acute Care Pediatric	5
Family	27
Neonatal	3
Pediatric	7
Primary Care Adult/Gerontology	4
Psychiatric/Mental Health	14
Women's Health	1

Table 7. Clinical Nurse Specialist Population Focus Areas, 2021

Clinical Nurse Specialist (n= 2 programs)				
Population Focus Area Number of Program				
Adult / Gerontology (Primary care)	2			
Pediatric	1			

the longest curriculum length (66 credit hours) compared to other program's median curriculum lengths, while NP programs focusing on women's health had the longest median curriculum for postmaster's certificate models (34 credit hours).

Table 8. Median APRN Curriculum Length in Credit Hours by Education Model, Program Type, and Population Focus Area, 2021

Program Type	Master's Degree	Post-Master's Certificate	Post-Baccalaureate DNP	Post-Master's DNP*
NP-Acute Care Adult/Gerontology	48	32	76	42
NP-Acute Care Pediatric	51	33	89	47
NP-Family	48	30	76	37
NP-Neonatal	44	33	75	33
NP-Pediatric	47	30	75.5	33
NP-Primary Care Adult/Gerontology	43.5	33	79	42
NP-Psychiatric/Mental Health	48.5	30.5	76	42
NP-Women's Health	46	34	-	-
CNS-Adult/Gerontology	49	23	64	-
CNS-Pediatric	38	18	64	-
Certified Nurse-Midwife	51	27	75	33
Certified Registered Nurse Anesthetist	66	-	112	32

Note: "-" indicates these data were not available.

^{*}The post-master's DNP track does not prepare students for APRN licensure.

Precepted Practice Hours

In the 2021 NEPIS, schools were asked to report the total number of precepted practice hours required (including assessment labs, simulation, and clinical practice) for their APRN programs of study. Precepted practice hours were defined as the designated portion of a formal APRN education program that is offered in a health care setting and affords students the opportunity to integrate theory and role preparation in both the population focus area and advanced nursing practice through direct patient care/client management. Precepted practice hours are planned and monitored by either a designated faculty member or qualified preceptor.

Table 9 shows the median number of precepted practice hours by program type, education model, and where applicable, population focus area.

- NA master's and post-baccalaureate DNP programs required the most hours overall—2,000 and 2,150 hours, respectively.
- Aside from the NA master's program, master's degree programs required a range of median hours from 540 in Pediatric CNS programs to 790 in NM programs.
- All programs in the post-master's DNP model required a median of 500 hours except the acute care pediatric NP program which required a median of 600 hours.

Table 9. Median Precepted Practice Hours by Education Model, Program Type, and Population Focus Area, 2021

Program Type	Master's Degree	Post-Master's Certificate	Post-Baccalaureate DNP	Post-Master's DNP*
NP-Acute Care Adult/Gerontology	645	630	1,000	500
NP-Acute Care Pediatric	675	630	1,725	600
NP-Family	667.5	660	1,020	500
NP-Neonatal	690	600	1,125	500
NP-Pediatric	645	645	892.5	500
NP-Primary Care Adult/Gerontology	690	660	1,020	500
NP-Psychiatric/Mental Health	648	607.5	975	500
NP-Women's Health	600	600	-	-
CNS-Adult/Gerontology	615	577.5	540	-
CNS-Pediatric	540	540	540	
Certified Nurse-Midwife	790	790	1,125	500
Certified Registered Nurse Anesthetist	2,000**	-	2,150	-

Note: "-" indicates these data were not available or applicable.

^{*}The post-master's DNP track does not prepare students for APRN licensure.

^{**}The median precepted practice hours for the nurse anesthetist master's degree refers to only one program.