



Syllabus

Course Title: IV Therapy for the LPN

Course Number: NUR117 **Semester Credits:** 2

Date Syllabus Filed: December 2018

Updated: May 15, 2019

Instructor(s): Sheri Stone MSN, APRN-AGCNS, CCRN, MICT

Office Phone: (785) 623-6175

Cell Phone: (785) 650-7542

E-Mail: sstone@ncktc.edu

Where to Leave Messages: Voicemail on Cell Phone or email

Dates: TBA

Cost: \$454 ***This includes a \$100 non-refundable deposit due at time of registration to hold your spot in the class.***

If you have not been an NCK Tech student, there is a \$50 registration fee

Proof of LPN licensure and Liability Insurance must be provided prior to enrollment of this course. Failure to provide both will result in the inability to take this course.

Building: Nursing - Hays **Enrollment:** 10

Catalog Description: This course is designed to prepare the Licensed Practical Nurse for certification by the State of Kansas in Intravenous Therapy.

Prerequisites: Practical Nursing Licensure

Course Length: The course shall consist of a minimum of thirty (30) classroom hours of instruction and a minimum of eight (8) hours of clinical practice not to include testing time. Class will run for 4 days from 8:00am to 4:30pm.

Faculty Student Ratio:

1. Supervision shall be given by the instructor employed by the college or by a preceptor who has been oriented to the course content and course expectations, and who functions under an agreement between the college and the clinical facility
2. No more than five (5) students per instructor will be allowed in the clinical setting
3. Class enrollment shall not exceed ten (10) students.

1. Scope of Practice

1.1 The licensed practical nurse who satisfactorily completes the course may perform the following functions under the indirect supervision of a registered professional nurse:

- A. Calculating
- B. Adding parenteral solutions to existing patent intravenous access devices or administration sets
- C. Changing administration sets
- D. Inserting intravenous access devices that meet these conditions
 - i. Do not exceed three inches in length
 - ii. Are located in peripheral sites only
- E. Adding designated premixed medications to existing medications to existing patent intravenous access devices or administration sets either by continuous or intermittent methods
- F. Maintain the patency of intravenous access devices and administration sets with heparin or normal saline
- G. Administering continuous intra venous drip analgesics and antibiotics, and performing the following procedures any facility having continuous on-site registered professional nurse supervision
 - i. Admixing intravenous medications
 - ii. Administering by direct intravenous push analgesics, antibiotics, antiemetics, and diuretics

2. Limitations

2.1. The course will not teach students to perform the following functions which are outside the scope of

practice of the licensed practical nurse and shall not be administered by the licensed practical nurse.

- A. Administration of any of the following:
 - i. Blood and blood products, including albumin.
 - ii. Investigational medications.
 - iii. Anesthetics, anti-anxiety agents, biological therapy, serums, Hemostatics, immunosuppressant, muscle relaxants, human plasma fractions, oxytocic, sedatives, tocolytics, thrombolytics, anticonvulsants, cardiovascular preparations, antineoplastic agents, hematopoietics, autonomic drugs, and respiratory stimulants.
 - iv. Intravenous fluid therapy in the home health setting, with the exception of the approved scope of practice authorized in subsections (a).
 - v. Intravenous fluid therapy to any patient under the age of 12 or any patient weighing less than 80 pounds, with the exception of the approved scope of practice authorized in subsection (a).
- B. Initiate Total parenteral nutrition or lipids
- C. Titrate medications
- D. Draw blood from a central intravenous access device
- E. Remove a central intravenous access device or any intravenous access device exceeding three inches in length
- F. Access implantable ports for any purpose

2.2. This regulation shall limit the scope of licensed practical nurse practice only with respect to intravenous fluid therapy and shall not restrict a licensed practical nurse's authority to care for

patients receiving this therapy. (1999)

3. At the completion of the IV certification course, the LPN will:

- 1.1 Provide nursing care and IV therapy within the scope of the ethical and legal responsibilities of practical nursing, and under the supervision of a Registered Professional Nurse.
- 1.2 Utilize the nursing process to identify basic needs of the client undergoing IV fluid treatment, under the supervision of a Registered Professional Nurse, following the limited scope of practice as determined by the Nurse Practice Act.
- 1.3 Provide safe and skillful IV therapeutic care in simple nursing situations based on knowledge of, biological, cultural, spiritual, and psychosocial needs of the client throughout the lifespan.
- 1.4 Demonstrate effective interpersonal relationships with the client, the client's family and the members of the interdisciplinary health care team.
- 1.5 Demonstrate responsibilities of the practical nurse as an individual who collaborates within the healthcare system and the community.

Course Objectives:

The LPN attending this course will:

1. Review and be familiar with the Kansas Nurse Practice Act; including current rules and regulations.
2. Review and be familiar with the Infusion Nursing Standards of Practice, Volume 34, Number 1 S, January/February 2011.
3. Review and be familiar with the policies and procedures of the clinical agency where clinical experience obtained.
4. Review the structure of the circulatory system, including the site and function of the veins used for venipuncture.
5. Review relationship between intravenous fluid treatment administration and body's homeostatic and regulatory functions, with attention to clinical manifestations of fluid and electrolyte imbalance and cellular physiology.
6. Understand the principles of infection control in intravenous fluid therapy administration
7. Be able to identify various types of equipment used in intravenous fluid therapy administration with content related to criteria for use of each and means of trouble shooting for malfunctions.
8. Review principles of compatibility and incompatibility of drugs and solutions
9. Review and be familiar with nursing management of special intravenous fluid therapy administration procedures that are commonly used in the clinical setting, such as a saline lock.
10. Practice procedures for venipuncture, including psychological preparation, site selections, skin preparation, puncture, anchoring, collection of equipment and documentation.
11. Practice maintenance of intravenous fluid therapy administration systems; discontinuing intravenous therapy administration, monitoring infusion, changing containers and tubing, and care of IV site.
12. Be familiar with the signs and symptoms of local and systemic complications in the delivery of fluids and medications and the preventive treatment measures for those complications.
13. Understand the nursing management of the patient receiving the drug therapy including actions, interactions, adverse reactions, methods of administration and assessment.
14. Practice calculations of fluid and drug administration rates.
15. Study the administration of the following drug classifications: Antibiotic, antiemetics, diuretics, anticoagulants, bronchodilators, analgesics, and electrolytes.

Optional Textbooks for This Course:

Journal of Infusion Nursing: Infusion Nursing Standards of Practice, Revised 2011, Wolters Kluwer Health, Lippincott Williams and Wilkins.

Lippincott Williams and Wilkins 2018 IV Therapy Made Incredibly Easy (5th ed.), Philadelphia: Wolters Kluwer

Castillo, S. L. & Werner-McCullough, M. (2012). Calculating Drug Dosages: An Interactive Approach to Learning Nursing Math (3rd ed.). Philadelphia: Davis.

Gorski, L.A. (2018). Phillips's Manual of I.V. Therapeutics: Evidence-Based Practice for Infusion Therapy (7th Ed.). Philadelphia: Davis.

Deglin, J.H. & Vallerand, A.H. (Eds.) (2016). Davis's Drug Guide for Nurses (15th ed.). Philadelphia: Davis.

Supplies: Note taking supplies, Syllabus and Handouts

Method of Evaluation/Grades for the Program:

1. Methods used will be written examinations, quizzes, and clinical assignments based on theory objectives.
2. The theory portion must be completed with an overall 80% accuracy as measured on methods listed above.
3. Faculty expectations of the laboratory component would involve active participation and safe demonstration of clinical nursing skills. The student is responsible for missed lab content. While in the lab setting, there will be competency points awarded daily.
4. Successful completion of the laboratory component entails achieving an 80% competency on written paperwork and a satisfactory lab performance. Lab performance is either satisfactory or unsatisfactory in that the student either performs at the level specified in the lab competency or does not. Students are expected to be active participants in the lab setting. Missed lab assignments will result in a zero.
5. Satisfactory laboratory check-off performance is required prior to being released to clinical. If a student receives an unsatisfactory score, it is their responsibility to set up a re-testing date (within one week) with the appropriate instructor prior to being released for clinical.
6. Tests will be taken on the day they are scheduled. If an exam is taken later than the scheduled time, the student will not be eligible for any extra credit, bonus points, or use of resource materials. If the test is not made up on the next available day then there will be a 10% reduction for the first day, 20% reduction for the second day, and a 50% reduction on the third day that the test has not been taken.

The grading scale is:

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = 59% - Below

7. Students are expected to demonstrate evidence of having read assigned readings prior to class discussion.
8. Individual student conferences will be held for any student who is not meeting the course objectives.

9. Written and clinical competency examination standards:

- a. The final written competency examination shall be constructed from the Kansas nursing board-approved pool of test questions and shall be based on the board approved test plan.
- b. The final written competency examination shall consist of a minimum of 50 questions and shall require a passing grade of 80% or above.
- c. The final clinical competency examination shall require successful completion of the procedures on the board-approved competency checklist, which shall include the following procedures:
 - i. Preparation for the insertion of an intravenous line
 - ii. Insertion of an intravenous access device
 - iii. Conversion of a peripheral catheter to an intermittent infusion device
 - iv. Administration set tubing
 - v. Care of the infusion site
 - vi. Flushing an intermittent infusion device
 - vii. Discontinuance of an intravenous infusion
 - viii. Administration of intravenous medication including both piggyback administration and direct injection
 - ix. Admixing intravenous medications.
- d. Final clinical competency exam requires passing score of 100%, and consists of return demonstrations.

Due Dates for Assignments and Tests: Students will receive a calendar and schedule indicating the testing dates at beginning of each semester. Students will receive a schedule of due dates for assignments at beginning of each course.

Late Assignment Policy for the Program:

10% reduction first day

20% reduction second day

50% reduction third day

No Credit after four days – This includes weekends and holidays

Attendance Policy for the Program:

1. Students are expected to attend class and lab experiences. If a student is absent, he or she is responsible for obtaining information missed during that class/lab time. Attendance points are awarded daily.
2. Students are expected to attend clinical experiences.
3. Students are expected to be on time.
4. The instructor is to be notified at least 30 minutes in advance if the student is to be absent from theory/laboratory/clinical.

5. Students are expected to participate in group projects, individual reports, and laboratory experiences as assigned.

Classroom Policy: Students and faculty of North Central Kansas Technical College constitute a special community engaged in the process of education. The college assumes that its students and faculty will demonstrate a code of personal honor which is based upon courtesy, integrity, common sense and respect for others both within and outside the classroom.

All students are required to produce their own work, unless the activity has been designated a collaborative activity by the instructor. Any student(s) found to be guilty of dishonest course work risk losing credit for that particular activity.

The college reserves the right to suspend a student for conduct which is detrimental to the college's educational endeavors, as outlined in the college catalog.

Inclement Weather Policy: In the event that a student is unable to attend class because of inclement weather, he/she is required to notify the office that day. School dismissals and cancelations will be announced using the NCKTC RAVE Alert system. Local media will also be notified.

Services for Students with Disabilities: Students, with either a permanent or temporary disability, who require accommodation for more than one week should request services by contacting the Student Services Office. Students requesting accommodations must present written documentation from a certified professional, which should include a statement identifying the disability as well as recommendations for accommodations. Contact, at least one month in advance, the Dean of Student Services at (785) 738-2276 to make requests for accommodations.

Policy Regarding Academic Dishonesty: Academic dishonesty of any kind will not be tolerated while attending North Central Kansas Technical College. Examples of Academic Dishonesty include but are not limited to:

Plagiarism: i.e. taking someone else's intellectual work and presenting it as one's own. Each department sets standards of attribution. Faculty will include disciplinary or class-specific definitions in course syllabi.

Cheating is unacceptable in any form. Examples include consultation of books, library materials, notes or electronic devices during test without the instructor's permission; use of crib sheets or hidden notes; intentional observation of another student's test on paper or a computer screen; accessing another student's electronic device and taking information from the device; receipt of a copy of an exam or questions or answers from an exam to be given or in progress; submission of falsified data; alteration of exams or other academic exercises; and collaboration on projects where collaboration is forbidden.

Falsification, forgery or alteration of any document pertaining to assignments and examinations.

Students who participate in or assist with cheating or plagiarism will also be in violation of this policy. Any student who participates in any form of academic dishonesty must accept the consequences of their actions. These consequences may include but are not limited to the following (a) verbal or written warning, (b) lowering of grade for assignment/activity, (c) failure of class assignment or exam.

EPA Standards: The college will comply with all Federal and State Standards in regard to OSHA and EPA Regulations. In most of the shops and labs, students either handle or produce hazardous waste materials. All faculty have received training on these standards. Students must follow the Universal Precautions criteria as instructed in NUR 201. **The First Aid Kit is located in the commons area in open view.** The Material Safety Data Sheets (MSDS) book is located next to the First Aid Kit in the commons area.

Reasonable Suspicion:

If reasonable suspicion of substance abuse exists regarding an employee or student based on objective criteria (including, but not limited to, behavior, appearance, demeanor, detection of the odor of alcohol or any controlled substance), the employee or student will be requested to consent to drug testing performed by NCK Tech's contract vendor at the expense of the college.

- A. A college administrator (or their designee) shall drive the employee or student to the vendor's site for drug testing and shall return the employee or student to his/her residence (or arrange for transportation) following the testing.
- B. Test results shall be sent directly to the college administrator, with a copy also sent to the employee or student. All test results will be considered confidential, access to the results will be limited to institutional personnel who have a legitimate need-to-know.
- C. In the event of a positive test result, the employee or student may request a retest of the sample at the employee or student's expense. The request must be submitted within 24 hours.
- D. Positive results for any illegal drugs, or prescription drugs (either not prescribed for the employee or student, or at levels above the prescribed dosage), or blood alcohol level of 0.04 or greater shall be grounds for disciplinary action, up to and including termination or expulsion.
- E. Refusal to provide a specimen for this testing shall be treated as a positive drug test result.
- F. Test results or specimens that have been determined to be altered by the employee or student shall be grounds for disciplinary action, up to and including termination or expulsion.
- G. If the employee or student tests positive for an authorized prescription drug which may impair his/her performance or judgment, the employee or student may not be permitted to participate in college activities until he/she provides a doctor's release.

Drug Testing Policy:

The NCK Tech has an obligation to provide a safe learning environment for all students and community members who may be impacted by the training of students in certain programs. NCK Tech offers several programs that require students to work with and around hazardous equipment with the potential to cause severe injury or death. In addition, NCK Tech offers nursing programs that require direct patient care. Students in these lab/shop areas and patient care areas must be attentive and focused on their actions, as well as others around them. Students with impaired or delayed reaction time, loss of concentration, or impaired decision-making are a hazard to others. Students that are impaired due to prescription medications or illegal drug use pose a serious risk to staff members, other students, and community members. The purpose of this policy is to promote safety and prevent a potential safety risk to others. This Drug Testing Policy shall not be used for law enforcement purposes.

The policy for each of these programs follows:

- 1. Testing:** All enrolled shall be subject to drug and alcohol testing.
 - a. Testing shall be coordinated by the Director of Nursing, Dean of Student Services, or the Dean of the Hays Campus and will be conducted at least once each semester.
 - b. Test results shall be forwarded directly to the Director of Nursing, Dean of Student Services, or the Dean of the Hays Campus, with a copy sent to the

student. All test results will be considered confidential and access to the results shall be restricted to the respective campus' administrator. These individuals shall have authority to determine institutional personnel having a legitimate need to know access to specific information.

- c. In the event of a positive test result, the student may request a retest of the sample at the student's expense. This request should be submitted within 24 hours.
- d. Refusal to provide a specimen for this testing shall be grounds for administrative withdrawal from the student's program.
- e. Test results or specimens that have been determined to be altered by the student shall be grounds for administrative withdrawal from the student's program.
- f. If the student does not request a retest of the sample, or if the sample is positive again upon retesting, the student shall be administratively withdrawn from the program.
- g. If the student tests positive for an authorized prescription drug which may impair his/her performance or judgment during clinical site experience, the student may not be permitted to participate in the shop experience until he/she provides a doctor's release to continue in the clinical site experience to the Dean of Student Services (Beloit campus) or the Dean of the Hays Campus (Hays campus).
- h. Students may reapply for admission into the program the following school year.

2. Confidentiality

- a. All results obtained and received will be kept confidential in separate medical record files. Access to such files shall be strictly limited.
- b. No information from such drug testing reports shall be provided to any person other than those whose duty requires them to have access to such information.
- c. Drug test results shall be used only as outlines in this policy. Such results shall not be used for any other purpose unless required to be produced by court order.
- d. Drug test results will not be transferred to other academic institutions or provided to potential employers.
- e. Drug test results shall not be provided to law enforcement unless required to be produced by court order.

NCK Tech Weapons Statement:

Individuals who choose to carry concealed handguns **are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and NCK Tech weapons policy.** Individuals must be 21 years of age to carry concealed handguns.

Safety measures outlined in the NCK Tech weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control and within immediate reach of the individual.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

Lockers, toolboxes, and/or tool bags are not approved storage devices in accordance with NCK Tech Policy.

NCK Tech Weapons Policy – Tests/Quizzes:

Individuals who choose to carry concealed handguns **are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and NCK Tech weapons policy.** Individuals must be 21 years of age to carry concealed handguns.

Safety measures outlined in the NCK Tech weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control and within immediate reach of the individual.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

Lockers, toolboxes, and/or tool bags are not approved storage devices in accordance with NCK Tech Policy.

Instructors are allowed, by NCK Tech policy, to require backpacks, purses, and other bags be placed in a separate location or away from the student during exams and quizzes, and as such those items will not be under the constant control of the individual. Students who choose to carry a concealed handgun in a purse, backpack, or bag must review and plan each day accordingly, and are responsible for making alternate arrangements as necessary. The College does not provide appropriate secured storage for concealed handguns.

Individuals who violate the NCK Tech weapons policy may be asked to leave campus with the weapon and may face disciplinary action.

Non-Discrimination Policy: Discrimination against any individual on the basis of race, color, gender, ethnic or national origin, sex, sexual orientation, gender identity, marital status, ancestry, disability, age, military status, veteran status or religion in the admission or access to, or treatment or employment in the college's programs and activities is prohibited. Harassment of an individual on any of these grounds is also prohibited.

The Dean of Student Services, P.O. Box 507, Beloit, KS 67420 has been designated to coordinate compliance with nondiscrimination requirements contained in Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972.

The Dean of Instructional Services, P.O. Box 507, Beloit, KS 67420 has been designated to coordinate compliance with nondiscrimination requirements contained in Section 504 of the Rehabilitation Act of 1973, and The Americans with Disabilities Act of 1990. Information concerning the provisions of these Acts, and the rights provided thereunder, are available from the compliance coordinator.

Tobacco Use Policy: The use of tobacco products in any form and/or electronic cigarettes is prohibited in, or within ten (10) feet of any building, owned, leased or rented by the college.

Please refer to the NCKTC Nursing Student Guide and the NCKTC Student Handbook for further information regarding program and college policies. This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student's progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcomed at any time.

Adopted 2012
Revised 2017; 2018

Schedule

This is not a set schedule – TBA

Class #1

Welcome/Registration/syllabus
Nurse Practice Act
Legal implications and Malpractice
Introduction to IV Therapy

Skills Lab time

Class #2

Peripheral IV Therapy
Central Venous Therapy
IV Medications
Flow rates- Drug mathematics

Skills Lab time

Class #3

Complications of IV Therapy
Infection Control Measures
Transfusions
Chemotherapy
Parenteral Nutrition
Pediatric IV Therapy
Geriatric IV Therapy

Skills Lab/Practice time

Class #4

Review Prior to Final Exam
Final Exam

Skills Lab- Check-offs
Successful Live IV Start