Choices...

Students who choose UMDNJ’s School of Health Related Professions want a University that is exclusively dedicated to health care, with state-of-the-art equipment, rigorous coursework, and faculty who care. All our resources go toward supporting a health care educational environment that attracts and nurtures the very best faculty and students.
CYTOTECHNOLOGISTS are health professionals who practice diagnostic cytology, the examination of cells removed from all body sites to determine if cancer or benign diseases are present. Cytotechnologists work with physicians, specifically pathologists, to detect and interpret microscopic abnormalities and to correlate cytologic findings with clinical information before a diagnosis is rendered.

Cytotechnologists make contributions in the following areas:

- Detecting cellular changes with the use of a microscope to diagnose cancer, or infectious and other benign diseases
- Preparing special stains and using adjunct technologies such as Flow Cytometry, Image Analysis, and Fluorescent In Situ Hybridization (FISH) techniques
- Assisting physicians with procedures such as Fine Needle Aspiration (FNA) and interfacing with them in determining the diagnosis of various diseases
- Supervising and teaching other laboratory personnel
- Monitoring the quality and validity of reports through quality assurance programs

Employment Outlook

The use of diagnostic cytology as a tool in the early detection of cancer has increased throughout the world. With improved methods of early detection and diagnosis of cancer as well as an increased incidence of the disease, the Cytotechnologist is ensured many employment opportunities with a good salary, professional mobility and challenging work. Presently the demand for Cytotechnologists skilled in the examination of specimens for tumor cells and benign diseases exceeds the number of qualified personnel. Employment opportunities are available to the Cytotechnologist in:

- Clinical laboratories of hospitals
- Commercial or reference laboratories
- Teaching institutions
- Research laboratories
Eligibility for Advanced Degrees

Upward mobility and career advancement opportunities exist through pursuit of advanced degrees. Because of the broad-based blend of science and medicine in the curriculum, the Cytotechnology Program is an excellent starting point for advanced degrees in medicine, clinical and biomedical sciences as well as career advancement in molecular diagnostics, research, education, hospital management and administration, and medically-related sales and marketing.

Frequently Asked Questions

What is the University of Medicine and Dentistry of New Jersey?

UMDNJ is the state university of the health sciences. There are eight schools on five campuses across New Jersey. UMDNJ is the largest fully accredited health sciences center of its kind in the nation and is a leader in health care research, education, and patient care.

What is SHRP?

SHRP stands for the School of Health Related Professions, one of eight schools at UMDNJ. Our specialization is twofold: (1) Preparing students for entry-level health care careers, (2) Educating health professionals for career advancement.

What types of degrees and programs does SHRP offer?

SHRP has 35 programs at all academic levels. Many programs, including the Cytotechnology Program, are offered in conjunction with one or more of our twenty-eight collaborating partner institutions.
What does it mean that SHRP has collaborations with other institutions?

Collaborations are partnerships that SHRP has formed with other higher education institutions to provide you with the best education possible. SHRP offers all of the health-related courses in the professional component of the program and the collaborating partners offer the general education, basic sciences, and liberal arts courses in the preprofessional component.

Will I get a degree or certificate after completion of the Cytotechnology Program?

It’s all about choices. UMDNJ-SHRP has three options for students who want to enroll in the Cytotechnology Program:

- **Option 1:** Joint Bachelor of Science in Clinical Laboratory Sciences offered by UMDNJ and twelve collaborating colleges and universities for students seeking a first baccalaureate degree.

- **Option 2:** Bachelor of Science in Clinical Laboratory Sciences offered solely by UMDNJ for students who already have a baccalaureate degree from an accredited college or university in the United States.

- **Option 3:** Certificate in Cytotechnology for students with an international degree equivalent to a baccalaureate degree in the United States.
What institutions collaborate with UMDNJ-SHRP in the Joint BS in CLS program?

UMDNJ-SHRP has established collaborations with 12 New Jersey colleges and universities in offering a 4-year Joint BS curriculum in Clinical Laboratory Sciences with a major in Cytotechnology. They are: Bloomfield College, Caldwell College, College of Saint Elizabeth, Fairleigh Dickinson University (Madison and Teaneck), Felician College, Georgian Court University, Kean University, Monmouth University, New Jersey City University, Ramapo College, Rutgers University (Newark) and Saint Peter’s College.

How is the joint program structured?

The Joint BS in Clinical Laboratory Sciences is a 4-year program.

The first 3 years is the preprofessional component consisting of general education and basic sciences at one of the 12 collaborating institutions.

The last 12-13 months (3 semesters; 4 semesters if Histology is taken at UMDNJ) is the professional component - the Cytotechnology Program at UMDNJ.
Where do I apply?

Begin by applying for admission to one of the collaborating partner Institutions. For the first three years or the preprofessional component, you will register, pay tuition, apply for financial aid at the collaborating institution, and complete a minimum of 90-106 semester hours of education, including the required general education and basic science courses. If you anticipate completion of all general education and prerequisite science courses by the end of your junior year, then you should apply to the UMDNJ-Cytotechnology Program by **October 15th of your junior year**. Once admitted to the Cytotechnology Program, you will register, pay tuition and apply for financial aid at UMDNJ and complete professional component coursework.

What is the required coursework at the collaborating institutions?

The required courses vary among the 12 collaborating institutions. The following general subjects are required: Anatomy and Physiology (4-8 cr), Cell Biology (3-4 cr), Microbiology (4 cr), General Chemistry (8 cr), Organic Chemistry (4-8 cr), Biochemistry or Molecular Biology (3-4 cr), Precalculus/Calculus (3-4 cr), Statistics (3 cr), and Histology (3-4 cr). Histology can be completed at the collaborating institution or at UMDNJ. In addition, courses in Genetics, Immunology and Computer Science are recommended.

You should contact the CLS campus coordinator at the collaborating institutions if you are considering attending to obtain a list of the required courses for the BS in CLS. You can also log onto our website for links for information about the collaborating institutions: [http://shrp.umdnj.edu/dept/CLS/bscls_intro.html](http://shrp.umdnj.edu/dept/CLS/bscls_intro.html) and information on professional courses: [http://shrp.umdnj.edu/dept/CLS/documents/cytopreproreq_000.pdf](http://shrp.umdnj.edu/dept/CLS/documents/cytopreproreq_000.pdf).
What are the criteria for admission to the Cytotechnology Program?

You must complete all preprofessional general education and basic science courses before enrollment at UMDNJ, and achieve a minimum overall grade point average of 2.75 with grades of C or better in all required science courses.

Acceptance into the program is competitive and based on the criteria listed above. Applicants from collaborating institutions who apply by October 15th of the year prior to enrollment receive first consideration, and will be notified of the admission by December 15th. Applications received after October 15th will be considered if the class is not filled.

What is the student enrollment in the Cytotechnology Program at UMDNJ?

Twelve students are admitted into the Cytotechnology Program each year. Our small class size provides you with a supportive, student-centered learning environment with many opportunities for individual interaction and guidance by our expert professional faculty.

When does the Cytotechnology Program begin?

The Cytotechnology Program begins at the end of August of each year and is completed in August of the following year. Students are admitted only once per year.

How many credits do I need to complete in the Cytotechnology Program and what is the required professional coursework?

You complete 42 credits (45 credits if Histology is taken at UMDNJ) in the Cytotechnology Program at UMDNJ. The professional course sequence is listed below:
**SUMMER (4 WEEKS) - FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYTO 4005</td>
<td>Histology *</td>
<td>3</td>
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</tbody>
</table>

* Course may be taken at UMDNJ or the collaborating institution

**FALL (16 WEEKS) - SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CYTO 4110</td>
<td>Gynecologic Cytology</td>
<td>4</td>
</tr>
<tr>
<td>CYTO 4120</td>
<td>Gynecologic Cytology Lab</td>
<td>4</td>
</tr>
<tr>
<td>CYTO 4130</td>
<td>Fine Needle Aspiration Cytology</td>
<td>1</td>
</tr>
<tr>
<td>CYTO 4169</td>
<td>Clinical Practicum I</td>
<td>2</td>
</tr>
<tr>
<td>CYTO 4289</td>
<td>Cytoprep Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CYTO 4350</td>
<td>Cytogenetics</td>
<td>1</td>
</tr>
<tr>
<td>CYTO 4389</td>
<td>Cytoprep Techniques II</td>
<td>2</td>
</tr>
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**SPRING (20 WEEKS) - THIRD SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CYTO 4209</td>
<td>Respiratory Cytology</td>
<td>3</td>
</tr>
<tr>
<td>CYTO 4220</td>
<td>Fine Needle Aspiration of the thyroid</td>
<td>2</td>
</tr>
<tr>
<td>CYTO 4239</td>
<td>Urinary Cytology</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 4310</td>
<td>Laboratory Statistics Management &amp; Education</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 4319</td>
<td>Introduction to Molecular Diagnostics</td>
<td>2</td>
</tr>
<tr>
<td>CYTO 4249</td>
<td>Body Fluid Cytology</td>
<td>3</td>
</tr>
<tr>
<td>CYTO 4369</td>
<td>Clinical Practicum II</td>
<td>2</td>
</tr>
<tr>
<td>CYTO 4370</td>
<td>Independent Study</td>
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**SUMMER (12 WEEKS) - FOURTH SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CYTO 4390</td>
<td>Gastrointestinal Cytology</td>
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</tr>
<tr>
<td>CYTO 4469</td>
<td>Clinical Practicum III</td>
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</tr>
</tbody>
</table>

**TOTAL 42 credits**

* 45 credits if Histology is taken at another institution
Where do I take classes?

You will take your general education and prerequisite science courses at one of the collaborating institutions.

You will complete most of your Cytotechnology Program courses mainly at UMDNJ’s Scotch Plains campus. You will complete your clinical practice courses at our off-campus affiliated hospitals and laboratories. In addition, some classes are offered online, so you will need reliable access to the Internet and the necessary computer hardware, software, and browser settings for UMDNJ’s online courseware.

How are the clinical practice courses scheduled?

Four clinical practice courses, comprising a total of 18 weeks, are taken during the Fall, Spring and Summer semesters at the clinical laboratories of our affiliated hospitals and commercial/reference laboratories. Clinical practice courses complement the on-campus instruction and will give you invaluable hands-on experiences in real-life hospital clinical laboratories under the supervision and guidance of experienced Cytotechnologists and Cytopathologists. Students have the opportunity to take their clinical courses at 2 or 3 of the following affiliated hospitals and reference laboratory:

- Morristown Memorial Hospital, Morristown
- Monmouth Medical Center, Long Branch
- Newark Beth Israel Medical Center, Newark
- Robert Wood Johnson University Hospital, New Brunswick
- Quest Diagnostics Inc, Teterboro
- Saint Clare’s Hospital, Denville
- Saint Joseph’s Medical Center, Paterson
- Saint Barnabas Medical Center, Livingston
- Saint Michael’s Medical Center, Newark
- Somerset Medical Center, Somerville
- UMDNJ-University Hospital, Newark
- The Valley Hospital, Ridgewood

These sites are located in Northern, Southern, and Central New Jersey. You will need to provide your own transportation to these sites.

In addition, students may apply for a clinical rotation at the University of Puerto Rico affiliated hospitals. These are offered on a space-available basis. Airfare, lodging, and local transportation expenses as well as meals are the responsibility of the student.

**Can I take course work on a part-time basis at UMDNJ?**

The Cytotechnology Program course work is offered on a full time, and 12-month basis only. Under special circumstances, students may extend their Program to three years with approval of the Program Director.

**Who will advise me during the Cytotechnology Program at UMDNJ?**

The Program Director and Education Coordinator will advise you.

**What degree will I receive after completion of the 4-year program?**

You will receive a Joint Bachelor of Science Degree in Clinical Laboratory Sciences from UMDNJ-SHRP and the collaborating institution where you completed your preprofessional courses.
Is this an accredited program?

Yes, the Cytotechnology Program is fully accredited by the Commission on Accreditation of Allied Health Professions through the recommendations of the Cytotechnology Programs Review Committee (CPRC) of the American Society of Cytopathology (http://www.asc.org/).

Will I be eligible to take the national certification exam after completion of this program?

Yes, after completing the Cytotechnology Program and your BS degree, you will be eligible to take the national certification exam in the Cytotechnologist (CT) category by the American Society for Clinical Pathology (http://www.ascp.org/bor).

What are the costs of the Cytotechnology Program?

While enrolled in the Cytotechnology Program at UMDNJSHP, you pay tuition, fees and apply for financial aid at UMDNJ. Undergraduate tuition and fees may be found at the following website:
http://shrp.umdnj.edu/general/regist_04_tuition_fee.html.

Additional costs include: $1,000 for books for the 12-month program; technology fee; fee for a criminal background check; fee for on-campus parking; and minimal daily parking fees at some of the affiliated clinical sites during clinical practice courses. All students are also required to purchase student health insurance unless a waiver is submitted documenting comparable health insurance coverage. Health insurance information may be
obtained at: http://shrp.umdnj.edu/prospective_students/admissions/admissions4_insurance_requ.htm. Prior to enrollment students must also defray the costs of a physical exam and immunizations to be provided by their own physician or health care practitioner. Tuition and fees are approved by the University’s Board of Trustees on an annual basis and are subject to change.

UMDNJ offers a complete range of financial assistance programs. Contact the UMDNJ Financial Aid Office, ADMC 1208, 30 Bergen Street, Newark, NJ 07107, (973) 972-4376. http://www.umdnj.edu/student_financialaid/index_new_brow.htm

Do you have advanced standing mechanisms for students with previous clinical laboratory education and experience?

No. We do not accept transfer courses from other schools. Only those who have completed courses in a CAAHEP-accredited program in the United States are eligible to take the ASCP certification exam and therefore qualified to work as Cytotechnologists in various US hospitals and laboratories.

Other Options in Cytotechnology

Although first consideration is given to the Joint BS in CLS degree applicants to the Cytotechnology Program at UMDNJ, individuals who already have a bachelor’s degree are also considered for admission to the program on a space-available basis.
If I already have a bachelor’s degree from another accredited U.S. College, what are the admissions requirements and what credential will I receive upon completion of the Cytotechnology Program?

If you already have a bachelor’s degree from an accredited institution in the U.S., you are eligible to apply to the Cytotechnology Program if you have a minimum overall grade point average of 2.75 and completed the following courses with a grade of C or better:

- **General Education:** 30 credits to include English (3 cr), Humanities and Fine Arts (3 cr), Math and Computer Science (3 cr), Natural Science (3 cr), Social Science (3 cr), and electives (15 cr)

- **Required Science courses:** 34-42 credits to include Anatomy and Physiology (4-8 cr), Cell Biology (3-4 cr), Microbiology (4 cr), General Chemistry (8 cr), Organic Chemistry (3-4 cr), Biochemistry/Molecular Biology (3-4 cr), Precalculus (34 cr), Statistics (3 cr), and Histology (3 cr)*

  * Histology may be taken at UMDNJ

**Electives:** 12-16 credits

UMDNJ-SHRP will accept 80 credits for transfer in the above categories. Once you complete the 42 to 45 credits in the Cytotechnology Program, you will receive a second baccalaureate degree, the B.S. in Clinical Laboratory Sciences, offered solely by UMDNJ.
However, if you met the admissions requirements 7 or more years prior to enrollment, you must update cell biology, biochemistry/molecular biology either through formal coursework, relevant experience, or other documented mechanisms.

Option 3: Certificate in Cytotechnology

*For students with an international degree equivalent to a U.S. baccalaureate degree*

If I completed my baccalaureate degree in another country, what are the admissions requirements and what credential will I receive upon completion?

If your baccalaureate degree is not from the United States, you are eligible to apply to the Cytotechnology Program provided you:

- Have an official transcript evaluation from an approved transcript evaluation agency in the U.S. that clearly states that your education is equivalent to a baccalaureate degree in the United States.
- Achieve a minimum GPA of 2.75
- Complete all required science courses with a grade of “C” or better
- Achieve a minimum score of 79/80 on the Internet-based Test of English as a Foreign Language exam (or 550 on the paper-based exam), if your native language is not English. (TOEFL/TSE Services, (609) 771-7100, [http://www.ets.org/toefl](http://www.ets.org/toefl))

Upon completion of the Cytotechnology Program, you will receive a Certificate of completion from UMDNJ. With this certificate, you will be eligible for the same employment opportunities and national certification exam as program graduates who receive a BS in CLS.
Where do I apply for Options 2 and 3?

If you meet eligibility requirements for these options, submit your application and required documents to the UMDNJ Office of Enrollment Services by October 15th.

The University of Medicine and Dentistry recognizes the value of diversity and is committed to providing appropriate support for its student body. UMDNJ-SHRP does not discriminate against qualified individuals on the basis of race, color, religion, gender, national origin, handicap/disability, age and/or sexual orientation.

The Essential Functions and Cytotechnology Program Technical Requirements for Enrollment in Courses are available at: http://shrp.umdnj.edu/prospective_students/admissions/admission_tech.html.

The Disability Compliance Coordinator may be reached at (973) 972-8594.

Additional Cytotechnology Program Information

Mission

The mission of the Cytotechnology Program is to educate students who will function competently, creatively, responsibly, and collaboratively in a dynamic health care environment.

Program Goals

The educational goals of the Cytotechnology Program are: 1) to prepare competent Cytotechnologists to function in the clinical laboratory sciences field at the baccalaureate level; 2) to provide the student with a broad-based background to serve as a foundation for
future growth and development; and 3) to prepare graduates to adapt to a changing health care environment. The curriculum is designed to prepare graduates for entry-level practice in scientific/technical areas, supervision/management, education and research. It is also designed to socialize the student to the attitudes and values of the profession, to provide an overview of the legal, ethical, economic, political and social aspects of the profession and the health care delivery system in general, and to instill a commitment to life-long learning. Finally, the curriculum is designed to develop generic skills in effective communication, problem solving and self-directed learning.

Program Officials and Faculty

Cecilia B. Vallejo, M.D., Diplomate, American Board of Pathology Program Director, Associate Professor, Dept. of Clinical Laboratory Sciences

Lois Rockson, MPH, MHPEd, SCT (ASCP)CM, IAC Education Coordinator, Assistant Professor, Dept. of Clinical Laboratory Sciences

Elaine M. Keohane, PhD, MLS(ASCP)CM MB, SH, Medical Laboratory Science Program Director, Professor and Chairman, Dept. of Clinical Laboratory Sciences

Deborah Josko, PhD, M(ASCP)CM MLT, SM, Medical Laboratory Science Assistant Program Director and Associate Professor, Dept. of Clinical Laboratory Sciences

Shashi Mehta, PhD, MT(AAB), CAGS, Associate Professor, Dept. of Clinical Laboratory Sciences

Drew J. Minardi, MA, MPA, MT(ASCP), PBT, BB, CQA(ASQ), Assistant Professor, Dept. of Clinical Laboratory Sciences
Course Descriptions

CYTO 4005 HISTOLOGY 3 CREDITS

Classroom instruction and student laboratory practice in the study of the microscopic structure of various organs, morphological evidence of its functions, as well as clinical correlation. An overview of histochemistry, cytochemistry, electron microscopy and various staining procedures are presented.

CYTO 4110 GYNECOLOGIC CYTOLOGY 4 CREDITS

Classroom instruction in the anatomy, histology, physiology and cell cytology of the female genital tract. Range of topics include inflammation, repair, pre-malignant and malignant cellular changes as well as changes associated with therapeutic and hormonal effects on cells. This course is the prerequisite for all other courses in the cytotechnology curriculum.

CYTO 4120 GYNECOLOGIC CYTOLOGY LABORATORY 4 CREDITS

Laboratory instruction in the diagnosis of neoplastic and non-neoplastic diseases of the female genital tract, as they are discussed in CYTO 4110 (Gynecologic Cytology). Students learn to formulate differential diagnosis and solve problems encountered in clinical practice. This course develops the foundation for all laboratory courses in the cytotechnology curriculum.

CYTO 4130 FINE NEEDLE ASPIRATION CYTOLOGY 1 CREDIT

Classroom presentation of fine needle aspiration techniques used for various organs and body sites, specimen collection, staining procedures, and ancillary techniques used to enhance the diagnostic capabilities of aspiration biopsies, and method of reporting aspiration cytology.
CYTO 4169 CLINICAL PRACTICUM I  2 CREDITS

Clinical practice in diagnostic cytology that includes microscopic examination of gynecologic specimens with close supervision and review by a clinical instructor.

CYTO 4209 RESPIRATORY CYTOLOGY  3 CREDITS

Classroom and laboratory instruction in anatomy, histology, physiology of the respiratory tract as background to the proper identification of cells removed from corresponding tissues. Cells collected by sputum, bronchoscopy and fine needle aspiration procedures are discussed. Cellular changes associated with benign and malignant disease processes and differential diagnostic considerations are emphasized.

CYTO 4220 FINE NEEDLE ASPIRATION OF THE THYROID  2 CREDITS

Classroom presentation and laboratory demonstration of the anatomy, physiology, histopathology and cytology of the thyroid gland with emphasis on the interpretation of fine needle aspiration smears of benign and malignant thyroid lesions and method of reporting aspiration cytology of the thyroid.

CYTO 4329 URINARY CYTOLOGY  2 CREDITS

Classroom instruction and laboratory practice in anatomy, histopathology, and cytology of the urinary system with emphasis on interpretation of benign and malignant diseases occurring at this site.
CYTO 4350 CYTOGENETICS 1 CREDIT

Classroom instruction in the basic principles of human genetics including the pathogenesis of chromosomal abnormalities, as well as their role in carcinogenesis. Application of chromosomal analysis to prenatal diagnosis and genetic counseling is included.

CYTO 4369 CLINICAL PRACTICUM II 2 CREDITS

Clinical laboratory practice that includes microscopic examination of nongynecologic and fine needle aspiration specimens encountered in cytology laboratory setting.

CYTO 4370 INDEPENDENT STUDY 2 CREDITS

An independent study project in cytology. Emphasis is placed on designing and conducting research on any topic related to cytopathology. Search of the literature, submission of a written project report and oral presentation are required.

CYTO 4389 CYTOPREPARATORY TECHNIQUES II 2 CREDITS

Laboratory practice with emphasis on cytoprocessing. Techniques such as preparation of histologic materials, special stains, electron microscopy, flow cytometry and cell imaging are introduced.

CYTO 4390 GASTROINTESTINAL CYTOLOGY 2 CREDITS

Classroom instruction and student laboratory practice in anatomy, physiology, histology and cytopathology of the gastrointestinal tract and accessory organs (liver, pancreas, and adrenal glands). Problems of differentiating between benign and malignant conditions are emphasized.
CYTO 4249 BODY FLUID CYTOLOGY 3 CREDITS

Classroom instruction and laboratory practice in anatomy, histology and cytopathology of serous membranes. The problems of differentiating metastatic and primary neoplasms from reactive changes are discussed. Also included are pediatric and AIDS cytology, the anatomy, histology and cytology of the central nervous system, breast, lymph nodes, bone and soft tissue tumors.

CYTO 4289 CYTOPREPARATORY TECHNIQUES I 1 CREDIT

Classroom instruction and laboratory practice in basic techniques for proper handling, processing and staining of cytologic preparations. Emphasis is placed upon the contribution of cytopreparatory techniques to proper specimen interpretation.

CLSC 4310 LABORATORY STATISTICS, MANAGEMENT, EDUCATION 2 CREDITS

Instruction and application of statistical methods in clinical laboratory quality control, method evaluation, and assessment of test validity and diagnostic accuracy; management principles relevant to clinical laboratory operations in technical, fiscal, work-flow and personnel areas; laws and regulations affecting clinical laboratory practice and personnel; and educational methodologies and evaluation strategies for educating others in a clinical laboratory setting. (Lecture/seminar hours 40, Laboratory hours 8)

CLSC 4319 INTRO TO MOLECULAR DIAGNOSTICS 2 CREDITS

Instruction, seminars and student laboratory focus on the advanced study of the scientific knowledge and skills required for practitioners in the area of clinical molecular biology. Topics including nucleic acid chemistry, amplification and hybridization techniques. Mutations and basic genetics, molecular biology laboratory techniques and clinical diagnostic applications (Lecture/seminar hours 40; Laboratory hours 16).
Clinical laboratory practice in diagnostic cytology including microscopic examination of gynecologic, non-gynecologic and fine needle aspiration specimens encountered in a cytology laboratory setting. This clinical practicum also includes hands-on training on HPV-DNA testing and imaging systems.

To learn more about the Cytotechnology Program or attend a campus tour, contact

Cecilia B. Vallejo, M.D., Program Director
(908) 889-2425/2424 e-mail: vallejcb@umdnj.edu
http://shrp.umdnj.edu/programs/cls/bscls_intro.htm

Application packet for the Cytotechnology Program may be obtained at:

UMDNJ-SHRP, Office of Enrollment Services Stanley S. Bergen Building, Room 149, 65 Bergen Street, Newark, NJ 07107
(973) 972-5454, or you may download an application form or apply online at: