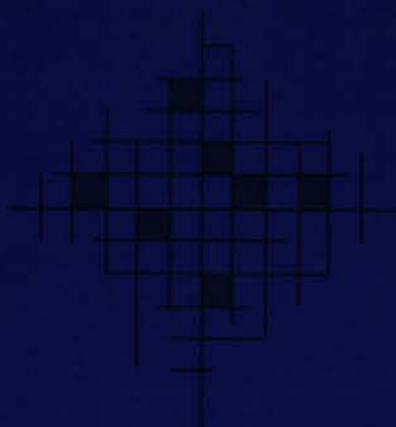


YOUR · COLLEGE · FOR · CAREERS

N · T · I · D

COURSES



1984-85

*The National Technical Institute for the Deaf at Rochester Institute of Technology*

## Quick Reference Telephone Directory

	<b>Voice</b>	<b>TDD</b>
NTID Main Phone	475-6400	2181
Career Outreach and Admissions	6700	6173
Institute Director	6418	6672
Career Development Programs Administration	6314	6314
Technical Assistance Programs Administration	6302	6302
School of Business Careers	2993	2993
School of Science and Engineering Careers	6270	6270
School of Visual Communication Careers	6756	6756
Communication Programs	6300	6301
General Education Programs	6552	6552
Educational Support Services Programs	6433	6443
Public Affairs Office	6824	6824
Visitors:		
Prospective Students	6318	6173
All Others	6405	2181
Dormitory 24-Hour Desk	6149	2894
Intercom Office	4592	4591
Financial Aid—RIT	2186	6909
VR Billing Coordinator	2080	2960
Housing—RIT	2571	2571

## Accreditation

The Institute is chartered by the legislature of the State of New York and accredited by the Middle States Association of Colleges and Schools. In addition to institutional accreditation, some curricula are accredited by appropriate professional accreditation bodies.

This bulletin was produced by the National Technical Institute for the Deaf (NTID) at Rochester Institute of Technology (RIT) through an agreement between RIT and the U.S. Department of Education.

RIT admits and hires men and women, veterans and disabled individuals of any race, color, national or ethnic origin, or marital status, in compliance with all appropriate legislation, including the Age Discrimination Act. The compliance officer is James Rapero.

## Academic Calendar 1984-85

[illegible]

# Introduction

This course bulletin provides course listings and examples of typical course sequences for students enrolled in programs at the National Technical Institute for the Deaf at Rochester Institute of Technology. It is meant to be used in conjunction with the *1984-86NTID Catalog*. For more detailed information, about academic policies/rules, financial aid, placement statistics, and academic programs, consult the *Catalog*.

## About This Bulletin

This course bulletin does not constitute a contract between Rochester Institute of Technology (RIT) and the students who are admitted to the National Technical Institute for the Deaf (NTID) on either a collective or individual basis. It represents RIT's best academic, social, and financial planning for NTID at the time it was published. In order to keep programs current and relevant, course and curriculum changes, modifications of tuition, fee, dormitory, meal and other charges, plus unforeseen changes in other aspects of RIT life sometimes occur after the bulletin has been printed but before the changes can be incorporated in a later edition of the same publication. Because of this, RIT does not assume a contractual obligation with NTID students for the contents of this bulletin.

For more information concerning other programs of study at RIT, write or phone:

### **Rochester Institute of Technology**

National Technical Institute  
for the Deaf  
Department of Career Outreach  
and Admissions  
One Lomb Memorial Drive  
Post Office Box 9887  
Rochester, New York 14623

(716) 475-6631 (Voice)  
475-6173 (TDD)

## Placement

Historically, more than 95 percent of NTID's graduates entering the labor force have found jobs. More than 80 percent work in business and industry; 11 percent in government; and six percent in education. Of those who were not seeking employment, more than 80 percent continued their education. The rest are homemakers, permanently not looking for employment, or temporarily not looking for employment. Graduates are employed nationwide in a variety of positions. For more information about NTID's placement statistics, consult the *1984-86NTID Catalog* or contact the Division of Career Opportunities at NTID.

## Attrition

Attrition is that percentage of a class that withdraws from the college within five years from entering, without receiving any degree. When compared with a national sample of two and four-year public and private institutions with varying selectivity criteria, NTID's attrition rate of 43 percent emerges in a relatively average position.

## Financial Aid

NTID students received nearly \$2 million in financial aid in FY83- The average award per student was \$1,425. The types of aid received include the NTID Grant-in-Aid; Vocational Rehabilitation assistance; Pell Grants; State Grants; State Loans; National Direct Student Loans; private scholarships; NTID Alumni Scholarships; and College Work-Study Programs. For more detailed information about financial aid, contact the NTID Financial Aid Office.

## Course Descriptions

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## Course Numbering

Each course is identified by its title and two numbers.

The **alpha-numeric course number** that appears before the course descriptions in each discipline is the official Institute course number. This number will appear on grade reports, transcripts, and other official correspondence. It means:

**First letter:** College offering the course

**Second and third letters:** School or department of that college

**Fourth letter:** Discipline of interest

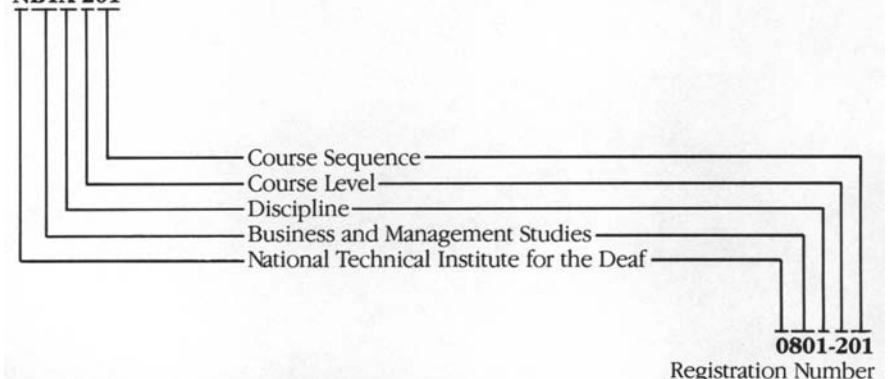
**First number:** Course level: 0 = Non-credit, 1 = Diploma; 2 or 3 = Lower level degree courses

**Second and third numbers:** Course differentiation and sequencing

Directly below the course title in the course description is the **registration number**. You must use this number when you register for a course, because the Institute's computer cannot read the alpha-numeric number.

Course Number

**NBTA-201**



Please refer back to this page for course numbering information on all programs in this catalog.

COURSES

NBTA (0801)

Accounting Technology

Career Exploration: Accounting Registration #0801-100

This course is designed to help students collect the information necessary to make an appropriate decision regarding a career in accounting. Students learn about the nature of accounting jobs, work environments, career options, and program requirements through a combination of group and individual activities that include presentations by faculty and related professionals, panel discussions, field trips, class observations, and student interviews.

CLASS 1, CREDIT 1 (F, W, S)

General Accounting I Registration #0801-201

This course is an introduction to accounting for both accounting and non-accounting majors. Topics covered are the basic accounting equation, the recording of transactions using debits and credits, general and subsidiary ledgers, and the accounting cycle, including recording transactions for service and merchandising enterprises in general and specialized journals, preparing trial balances, adjusting and closing processes, and preparing basic financial statements.

CLASS 6, CREDIT 3 (F)

General Accounting II Registration #0801-202

This course is a continuation of General Accounting I for both majors and non-majors. Topics covered include the calculation of interest on notes and the discounting of notes, adjustment for uncollectable accounts, merchandise inventory systems and calculations, depreciation or amortization of assets, and internal control and the voucher system. Coursework includes a practice set that applies accounting concepts in a simulated business situation.

CLASS 6, CREDIT 3 (W)

PREREQUISITE: 0801-201

Fundamentals of Economics I, II Registration #0801-231, 232

This two-course sequence gives an overview of micro- and macroeconomic concepts. Students examine economic problems in a rational manner by learning the fundamental processes of economic analysis and the skills of economic reasoning regarding phenomena in our world. The course includes selected knowledge and skills from the economic discipline presented in the form of concepts and understandings deemed most important to economic literacy for students.

CLASS 3, CREDIT 3 (0801-231-W, 0801-232-S)

PREREQUISITE: 0804-101

Applied Accounting I Registration #0801-251

This course for accounting majors is a continuation of General Accounting I and II. Topics covered include a review of the accounting cycle and financial reports, the components of a payroll system and the calculation and recording of employee earnings and employer payroll taxes, the preparation of federal payroll reports, and the recording and adjusting of deferrals and accruals. Coursework includes a practice set designed to summarize General Accounting I and II and Applied Accounting I in a simulated business situation.

CLASS 6, CREDIT 4 (S)

PREREQUISITE: Grade of C or better in 0801-202

Applied Accounting: Diploma—NBTA (0801)

Typical Course Sequence

Fall Term			Winter Term			Spring Term		
First Year								
		Cr. Hrs.			Cr. Hrs.			Cr. Hrs.
0804-111	Beginning Typing I	2	0804-112	Beginning Typing II	2	0804-113	Beginning Typing III	2
0804-211	Business Procedures I	3	0804-212	Business Procedures II	3	0804-213	Business Procedures III	3
0817-105	Office Procedures Math	3	0804-110	Business English	3	0817-122	Algebra IA	3
0804-101	Orientation to Business	3	0847-100	Dimensions of			Communication	2
0847-101	Job Search Process	1		College Life	2		English	4
	English	4		Communication	2		Physical Education	0
		16		English	4			14
				Physical Education	0			
					16			
			Summer					
			0801-299	Co-op Work Experience				
Second Year								
0804-221	Advanced Typing I	3	0801-202	General Accounting II	3	0801-251	Applied Accounting I	4
0804-284	Fundamentals of Management	3	0802-210	Data Processing for Business Occupations (Accounting)	3	0804-286	Fundamentals of Marketing or	3
0801-201	General Accounting I	3		General Education		0847-147	Law and Society	2
0817-123	Algebra IB	3		Course Elective	2	0847-102	Life After College	1
	Communication	2		Communication	2		General Education	
	English	4		English	4		Course Elective (optional)	2
	Physical Education						Communication	2
		18			14		English Elective	

**Applied Accounting II**  
**Registration #0801-252**

This course introduces students to cost accounting with an emphasis on job order costing. Topics covered include manufacturing statements, cost theory, and integration of materials, labor, and overhead to job cost situation. The course culminates with practical application of course content through a practice set.

CLASS 6, CREDIT 4 (F)

PREREQUISITE: Grade of C or better in  
0801-251

**Applied Accounting III**  
**Registration #0801-253**

This course is a continuation of cost accounting with particular concentration on process and managerial aspects of cost accounting. Topics covered include average and FIFO process, costing methods, equivalent units, multiple products, changes in units, standard costing, budgeting, cost classification, and practical applications.

CLASS 6, CREDIT 4 (W)

PREREQUISITE: Grade of C or better in  
0801-252

**Applied Accounting IV**  
**Registration #0801-254**

This course introduces managerial accounting topics and is a review of previous accounting content. Topics covered include financial analysis, accounting concepts and principles, statement of changes in financial position, and direct costing.

CLASS 6, CREDIT 4 (S)

PREREQUISITE: Grade of C or better in  
0801-253

**Applied Accounting Techniques**  
**Registration #0801-260**

This course gives students an opportunity to reinforce and apply accounting topics and skills previously studied. Students work in a simulated accounting office as accounting clerks and perform a variety of general and process costing duties.

CLASS 6, CREDIT 2 (S)

PREREQUISITE: Grade of C or better in  
0801-253

**Co-op Work Experience**  
**Registration #0801-299**

CREDIT 0 (Su)

**Independent Study**  
**Registration #0801-399**

CREDIT Variable

**Applied Accounting: AA.S. Degree—NBTA (0801)**

**Typical Course Sequence**

**Fall Term**

**First Year**

		<b>Cr.</b>	<b>Hrs.</b>
0804-111	Beginning Typing I	2	
0804-211	Business Procedures I	3	
0817-105	Office Procedures Math	3	
0804-101	Orientation to Business	3	
0847-101	Job Search Process	1	
	English	4	
		16	

**Second Year**

0804-221	Advanced Typing I	3	
0804-284	Fundamentals of Management	3	
0801-201	General Accounting I	3	
0817-123	Algebra IIB	3	
	Communication	2	
	English	4	
	Physical Education	0	
		18	

**Third Year**

0801-252	Applied Accounting II	4	
0817-127	Algebra IIB	3	
	Liberal Arts	4	
	Liberal Arts	4	
		15	

**Winter Term**

		<b>Cr.</b>	<b>Hrs.</b>
0804-112	Beginning Typing II	2	
0804-212	Business Procedures II	3	
0804-110	Business English	3	
0847-100	Dimensions of College Life	2	
	Communication	2	
	English	4	
	Physical Education	0	
		16	

**Summer**

0801-299	Co-op Work Experience		
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**Summer**

0801-299	Co-op Work Experience		
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**Spring Term**

		<b>Cr.</b>	<b>Hrs.</b>
0804-113	Beginning Typing III	2	
0804-213	Business Procedures III	3	
0817-122	Algebra IA	3	
	Communication	2	
	English	4	
	Physical Education	0	
		14	

0801-251	Applied Accounting I	4	
0817-126	Algebra IIA	3	
0804-286	Fundamentals of Marketing	3	
	Liberal Arts	4	
	Communication	2	
		16	

0801-254	Applied Accounting IV	4	
0804-291	Applied Accounting Techniques	2	
0801-232	Economics II	3	
0847-102	Life After College	1	
	Liberal Arts	4	
	General Education Course Elective	2	
		16	

# Data Processing

**Note:** Courses that require laboratories may require those laboratories to be in the evening or on Saturday.

## Introduction to Data Processing Registration #0802-100

This course provides an overview of the fields of business data processing and computer science. This course is intended for students needing skill development prior to full entry into the indepth data processing major courses. Logic skill development and the use of microcomputers are emphasized.  
CLASS 3, CREDIT 2 (F, W, S)

## Introduction to Business Programming Registration #0802-101

This course introduces students to the function of programming the computer. Using microcomputers, students learn to read, analyze, flowchart, and program various business applications. This course is the foundation for future programming courses and has a strong emphasis on developing logic skills.  
CLASS 4, CREDIT 3 (F, W, S)  
PREREQUISITE: CID 1 and 0817-122

## On-Line Processing/Programming Registration #0802-120

In this course, students learn to build, edit, and list files on computer terminals. Other topics include types of files, compiling, linking, and running programs on-line. This course is required for most programming courses that use the RIT computer.  
CLASS 2, CREDIT 2 (F, S)  
PREREQUISITE: 0802-101

## Data Processing Technical Communications Registration #0802-125

In this course, students learn to read and write technical manuals, forms, instructions, and other types of communication used in the field of data processing.  
CLASS 2, CREDIT 2 (F, W, S)  
PREREQUISITE: CID 1, 0802-157

## Beginning Computer Operations Registration #0802-157

This course provides students with an understanding of the operation of modern computers. Peripheral devices, such as the CPU and off-line equipment, are introduced.  
CLASS 1, CREDIT 1 (F, W)  
COREQUISITE: 0802-158

## Beginning Computer Operations Laboratory Registration #0802-158

Students are given hands-on experience with one or more computer systems.  
LAB 2, CREDIT 1 (F, W)  
COREQUISITE: 0802-157

## Data Processing: Certificate—NBTD (0802)

### typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0802-100	Introduction to Data Processing	2
0802-157	Beginning Computer Operations	1
0802-158	Laboratory	1
0817-122	Algebra IA	3
0847-101	Job Search Process	1
	Communication	2
	English	4
		14

#### Winter Term

		Cr. Hrs.
0802-170	Utilities/JCL for Computers	2
0804-101	Orientation to Business	3
0817-123	Algebra IB	3
0847-100	Dimensions of College Life	2
	English	4
		14

#### Spring Term

		Cr. Hrs.
0802-101	Introduction to Business Programming	3
0802-161	Business Computers Systems Facilities	2
0802-390	Data Processing Seminar	1
	Communication	2
	English	4
		12

#### Summer

0802-299	Co-op Work Experience
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##### Second Year

0802-125	Data Processing Technical Communications	2
0802-162	Computer Console Operations	1
0817-104	Business Mathematics	3
	Business Elective	2
	Communication	2
	English	4
	Physical Education	0
		14

## Business Computer Systems Facilities Registration #0802-161

In this course, students study business computer systems. Topics covered include terminology used for hardware and software components, and an introduction to concepts such as systems control programs, multiprogramming, storage management, and library support. Initial discussions also are conducted on spooling and software creation.  
CLASS 2, LAB 1, CREDIT 2 (F)  
PREREQUISITE: 0802-101 or concurrent, 0802-157

## Computer Console Operations Registration #0802-162

This course is designed to acquaint students with the operator's work area and initial functions. Indicator lights, the console control panel, and the keyboard are discussed. Course content covers the start up of the computer (from power on) to the point where the operating system takes over.  
CLASS 1, LAB 1, CREDIT 1 (F)  
PREREQUISITE: 0802-161

## Utilities/JCL for Computers Registration #0802-170

In this course, students learn the use of utilities as applicable to the operations environment. The writing of JCL for operations and for the production system is presented. Each student writes and submits a variety of JCLs for operation of utilities as well as for some production work.  
CLASS 2, LAB 1, CREDIT 2 (W, S)  
PREREQUISITE: 0802-157

## Computer Architecture Registration #0802-171

In this course, students learn the hardware that makes up computer systems. Topics include channels, busses, transmission over lines, modems, and general hardware.  
CLASS 1, CREDIT 1 (W, S)  
PREREQUISITE: 0802-160

## Data Processing for Business Occupations Registration #0802-210

This course is an introduction to the use of computers in business-related applications. Concepts of interacting with the computer function of a business as well as hands-on use of computers are presented.  
CLASS 3, CREDIT 3 (W)  
PREREQUISITE: Second-year standing in the Business Occupations Department

**Business Programming in COBOL I & II  
Registration #0802-230, 231**

This is a two-quarter sequence in COBOL programming. Students learn print reports, general processing of files, and the updating of random access files. The two-course sequence is intended to give students beginning skills in COBOL programming.

CLASS 4, CREDIT 3 (W, S)

PREREQUISITES: 0802-120, 0817-123  
for 0802-230  
0802-230 for 0802-231

**Programming for Computer Science  
Students I & II  
Registration #0802-235, 236**

This is a two-quarter sequence in programming. The language currently used by the RIT Computer Science School is taught. Emphasis is placed on the use of tables/arrays and sorting. This course is intended for students who plan to pursue a baccalaureate degree in computer science.

CLASS 4, CREDIT 3 (W, S)

PREREQUISITES: 0802-120, 0817-123  
for 0802-235  
0802-235 for 0802-236

**Assembler Language Programming  
Registration #0802-240**

In this course, students learn to use assembler language to program the computer on a low level basis, "file major emphasis of the course is on the actual machine language of the computer and how the CPU works. The language taught (BAL) is not intended for use as a business programming language.

CLASS 4, CREDIT 3 (F)

PREREQUISITES: 0802-101, 0817-163

**Advanced Assembler Programming  
Registration #0802-241**

Designed as a sequence to Assembler Language Programming, this course teaches students how to use assembler language as a programming language for business applications.

CLASS 4, CREDIT 3 (W)

PREREQUISITE: 0802-240

**Multiprogramming/Spooling for Operators  
Registration #0802-250**

This course provides students with an indepth discussion of computer systems that operate in multiprogramming mode. Queue control and general control of a spooling system are the main topics covered.

CLASS 2, CREDIT 2 (F, S)

COREQUISITE: 0802-251

PREREQUISITES: 0802-101, 0802-162, and  
0802-170

**Multiprogramming/Spooling Laboratory  
Registration #0802-251**

This laboratory provides hands-on experience related to Multiprogramming/Spooling for Operators. Students develop skills in working with queues and spooling programs.

LAB 2, CREDIT 1 (F, S)

COREQUISITE: 0802-250

**Data Processing: Diploma—NBTD (0802)**

**Topical Course Sequence**

**Fall Term**

**First Year**

		Cr. Hrs.
0802-100	Introduction to Data Processing	2
0802-157	Beginning Computer Operations	1
0802-158	Laboratory	1
0817-122	Algebra IA	3
0847-101	Job Search Process	1
	Communication	2
	English	4
		14

**Second Year**

0802-162	Computer Console Operations	1
0802-120	On-Line Processing Programming	2
0817-104	Business Mathematics	3
	Business Elective	3
	English	4
	Physical Education	0
		13

**Winter Term**

		Cr. Hrs.
0802-125	Data Processing Technical Communications	2
0802-170	Utilities/JCL for Computers	2
0804-101	Orientation to Business	3
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
		15

**Summer**

0802-299	Co-op Work Experience	
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**System Generation for Operators  
Registration #0802-260**

In this course, students are required to create an operating system. Students learn the various parameters that make up an operating system, and the design and actual development of a system for a medium scale system from an operator's viewpoint.

CLASS 2, CREDIT 2 (F)

COREQUISITE: 0802-261

PREREQUISITES: 0802-125 and 0802-162

**System Generator Laboratory  
Registration #0802-261**

Students are lead through a complete system creation on a medium scale computer. Hands-on experience is given in teams as students do most of the actual machine operation.

LAB 3, CREDIT 1 (F)

COREQUISITE: 0802-260

**Spring Term**

		Cr. Hrs.
0802-101	Introduction to Business Programming	3
0802-161	Business Computer Systems Facilities	3
0802-171	Computer Architecture	1
0817-123	Algebra IB	3
	Communication	2
	English	4
		15

0802-250	Multiprogramming/Spooling for Operators	2
0802-251	Laboratory	1
0802-231	Business COBOL II	3
0817-126	Algebra 2A	3
0802-390	Data Processing Seminar	2
	Business Elective	2
	Communication	2
		15

**Advanced Operating Systems  
Registration #0802-262**

Designed as a continuation of System Generation for Operators (0802-260), this course focuses on the software that makes up a total computer system. Installation of compilers, utilities, and related software are major topics covered.

CLASS 2, CREDIT 2 (W)

PREREQUISITE: 0802-260

COREQUISITE: 0802-263

**Advanced Operating Systems Laboratory  
Registration #0802-263**

Students in this lab install the software related to operating systems.

LAB 1, CREDIT 1 (W)

COREQUISITE: 0802-262

**Co-op Work Experience  
Registration #0802-299**

CREDIT 0 (Su)



All of the 300 number courses require that the student has passed the English Composition Placement Test.

### Data Base Systems

#### Registration #0802-325

This course introduces students to the use of data base systems on computers. Students design a data base for an information system of their choice.

CLASS 4, CREDIT 4 (W)

PREREQUISITE: Two-quarter sequence in programming (language is not important)

### File Management

#### Registration #0802-330

In this course, students learn to store and use maintenance information in files. Major topics covered include the various forms of storage and organization of files. Backup, restore, and areas such as security and confidentiality also are discussed.

CLASS 4, CREDIT 3 (S)

PREREQUISITES: 0802-162, one programming course (200 level)

### Data Organization

#### Registration #0802-335

This course is a continuation of Programming for Computer Science II (0802-236). The sorting process and the concepts of trees and pointers are discussed and programmed. This course is for students interested in continuing for a baccalaureate degree in computer science.

CLASS 4, CREDIT 4 (F)

PREREQUISITES: 0802-236, 0817-127

### Maintenance Programming

#### Registration #0802-340

In this course, students learn the maintenance process of the programming environment and how to recognize other individuals' styles, logic, and standards needed to alter existing programs. Students are given language syntax to correct, and programs to alter, correct, and revise following a set of standards. This course is for students interested in COBOL business programming.

CLASS 4, CREDIT 3 (F)

PREREQUISITE: 0802-231

### Large Scale Systems

#### Registration #0802-350

In this course, students are introduced to large scale systems and their operation. The content of this course varies depending on the systems available. The topics are related to the support functions in large computer installations.

CLASS 2, CREDIT 2 (W)

COREQUISITE: 0802-351

PREREQUISITES: One 200 series programming course, 0802-250, and 0801-201

### Large Scale Systems Laboratory

#### Registration #0802-351

This lab supports the concepts of Large Scale Systems (0802-350). Students are assigned to set up and operate a medium to large scale system. Students have the opportunity to work in a large scale computer installation. Lab meetings will be based on availability of systems.

LAB 2, CREDIT 1 (W)

COREQUISITE: 0802-350

## Data Processing: A.A.S. Degree—NBTD (0802)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0802-100	Introduction to Data Processing	2
0802-157	Beginning Computer Operations	1
0802-158	Laboratory	1
0817-122	Algebra IA	3
0847-101	Job Search Process	1
	Communication	2
	English	4
		14

#### Winter Term

		Cr. Hrs.
0802-125	Data Processing Technical Communications	2
0802-170	Utilities/JCL for Computers	2
0817-123	Algebra IB	3
0847-100	Dimensions of College Life	2
	English	4
	Physical Education	0
		13

#### Spring Term

		Cr. Hrs.
0802-101	Introduction to Business Programming	3
0802-161	Business Computer Systems Facilities	2
0817-104	Business Mathematics	3
0804-101	Orientation to Business	3
	Communication	2
	English	4
		17

### Summer

0802-299	Co-op Work Experience
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#### Second Year

0802-162	Computer Console Operations	1
0802-120	On-Line Processing Programming	2
0817-126	Algebra IIA	3
	Business Elective	3
	English	4
	Physical Education	0
		13

0802-171	Computer Architecture	1
0802-230	Business COBOL I	3
	Business Elective	3
	Communication	2
	English	4
	Physical Education	0
		13

0802-250	Multiprogramming/ Spooling for Operators	2
0802-251	Laboratory	1
0802-231	Business COBOL II	3
0817-127	Algebra IIB	3
	Liberal Arts	4
	Communication	2
	Physical Education	0
		15

### Summer

0802-299	Co-op W/rk Experience
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#### Third Year

0802-260	System Generation for Operators	2
0802-261	Laboratory	1
0817-163	Data Processing Mathematics	3
	Technical Elective	3
	Liberal Arts	4
	Communication	2
		15

0802-340	Assembler Language Programming	3
0802-262	Advanced Operating Systems	2
0802-263	Laboratory	1
	Business Elective	3
	Mathematics Elective	3
	Liberal Arts	4
		16

0802-390	Data Processing Seminar	1
	Technical Elective	3
	Liberal Arts	4
	Liberal Arts	4
	Communication	2
		14

### Small Business Systems

#### Registration #0802-360

In this course, students learn the use of micro/mini computers in the small business environment. Students are assigned to operate a small business computer for a normal business cycle. This course requires extensive lab work outside of class.

CLASS 2, CREDIT 2 (F, S)

PREREQUISITES: 0802-162, one 200 series course, and 0801-201

### Small Business Systems Laboratory

#### Registration #0802-361

This is not a structured lab. Student projects are done in a combined class and lab environment. Financial work, inventory control, and payroll are some of the systems that students are responsible to run successfully

LAB 3, CREDIT 1 (F, S)

COREQUISITE: 0802-360

### Data Processing Seminar (optional)

#### Registration #0802-390

The seminar provides a relevant framework for students' previous data processing courses and also prepares students for continued growth on the job by emphasizing new directions in data processing. Students may study independently a topic agreed on by the student and instructor.

CLASS 1-3, CREDIT Variable (F, W, S)

### Independent Study

#### Registration #0802-399

CREDIT Variable (F, W, S)

NBTP (0804)

# Business Occupations/ Office Practice and Procedures

## Career Exploration: Office Practice and Procedures

### Registration #0804-100

This course is designed to help students collect the information necessary to make an appropriate decision regarding a career in Office Practice and Procedures. Students learn about the nature of office practice and procedures jobs, work environments, career options, and program requirements through a combination of group and individual activities that include presentations by faculty and related professionals, panel discussions, field trips, class observations, and student interviews.

CLASS 1, CREDIT 1 (F, W, S)

## Orientation to Business

### Registration #0804-101

This course is a broad overview of American business and its environment. It provides the student with a basic knowledge of the history, organization, and operation of business and its particular vocabulary. A market simulation using a microcomputer is used.

CLASS 3, CREDIT 3 (F, W, S)

## Payroll Records Management

### Registration #0804-108

This course provides practical working knowledge and skills necessary to perform the various recordkeeping, calculating, and reporting activities associated with payroll systems. Students will perform both manual and automated payroll recordkeeping procedures.

CLASS 4, CREDIT 2 (F, S)

## Business English

### Registration #0804-110

This self-paced course provides proofreading and editing skills as they relate to typewritten communications. Course content includes rules for word division, capitalization, numbers, abbreviation style, and spelling. Designed specifically for students enrolled in courses in the Business Occupations Department.

CLASS 3, CREDIT 3 (W, S)

## Beginning Typing I, II, III

### Registration #0804-111, 112, 113

These courses are for students with no previous typing experience and for those who type below 30 net words per minute. The courses focus on keyboard training, established methods to improve rhythm and stroking patterns, and techniques to develop speed and accuracy. Various typing formats and business correspondence will be presented.

CLASS 5, CREDIT 2 (0804-111-F, 0804-112-W, 0804-113-S)

PREREQUISITES: 0804-111 for 0804-112  
0804-112 for 0804-113

## C.O.R.E. Certificate Program—Business Occupations—NBTP (0804)

### Typical Course Sequence

#### Fall Term

##### First year

		Cr. Hrs.
0804-111	Beginning Typing I	2
0804-211	Business Procedures I	3
0817-105	Office Procedures Math	3
0847-101	Job Search Process	1
	Communication	2
	English	4
		15

##### Second year

0804-221	Advanced Typing I	3
0847-147	Law and Society	2
	General Education	
	Course Elective* or	
	Business Elective**	2
	Communication	2
	English	4
		13

\*Recommended General Education  
Courses for Business Majors

0847-106	Personal Finance	2
0847-110	Personal Development	2
0847-126	Leadership Development	2
0847-129	Assertiveness Training	2
0847-162	The V/Sbrid of WjrK	1
0847-163	Interpersonal Relations on the Job	2

#### Winter Term

		Cr. Hrs.
0804-112	Beginning Typing II	2
0804-212	Business Procedures II	3
0804-101	Orientation to Business	3
0804-100	Dimensions of	
	College Life	2
	Communication	2
	English	4
		16

#### Summer

0804-299	Co-op Work Experience	
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#### Spring Term

		Cr. Hrs.
0804-113	Beginning Typing III	2
0804-213	Business Procedures III	3
0804-110	Business English	3
	Communication	2
	English	4
	Physical Education	0
		14

## Introduction to Data Processing

### Registration #0804-124

This course gives students a background in data processing. It presents the concepts and techniques in the processing of data, and is directed to the needs and requirements of students.

CLASS 2, CREDIT 2 (F, W, S)

## Business Procedures I, II, III

### Registration #0804-211, 212, 213

This sequence of courses develops basic skills in current business procedures related to the basic clerical office function. Skills include current records management systems, the correct use of business machines, introduction of the accounting equation, and the manual and automated computerized keeping of payroll records, accounts receivable, and accounts payable records. The learner develops skills that are applicable to a variety of office settings.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITES: 0804-211 for 0804-212  
0804-212 for 0804-213

### Advanced Typing I Registration #0804-221

The emphasis of this course is on the improvement of basic skills and the application of these skills to a variety of realistic office projects. Students type correspondence, reports, manuscripts, business forms, and tabulations.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: Grade of C or better; in 0804-113

### Advanced Typing II Registration #0804-222

This course emphasizes advanced typing skills and the application of these skills in several varied projects related to law, sales, government, and executive and general offices, including a word processing center. An introduction in the use of the memory typewriter also is provided. Students must exit with a net speed of 50 words per minute for five minutes.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: Grade of C or better in 0804-221

### Office Practice and Procedures Seminar Registration #0804-230

This course gives students an opportunity to prepare for employment through field trips, mentoring, and guest lectures. Topics for discussion are identified by students enrolled in the seminar.

Topics covered may include time management, career development, and personal/social development skills necessary for job success. Students participate in planning class sessions.

CLASS 4, CREDIT 2 (S)

PREREQUISITE: Diploma student status

### Fundamentals of Management Registration #0804-284

This course focuses on theory and practice basic to the management process. Students use case studies, lectures, and simulations to study the planning, organizing, directing, staffing, and controlling functions. The course also introduces students to motivation and leadership theory as it relates to the role of a manager.

CLASS 3, CREDIT 3 (F, W)

PREREQUISITE: 0804-101

## Office Practice and Procedures: Diploma—NBTP (0804)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0804-111	Beginning Typing I	2
0804-211	Business Procedures I	3
0817-105	Office Procedures Math	3
0804-101	Orientation to Business	3
0847-101	Job Search Process	1
	English	4
		16

#### Winter Term

		Cr. Hrs.
0804-112	Beginning Typing II	2
0804-212	Business Procedures II	3
0817-122	Algebra IA (optional)	3
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		16

#### Spring Term

		Cr. Hrs.
0804-113	Beginning Typing III	2
0804-213	Business Procedures III	3
0804-110	Business English	3
	Communication	2
	English	4
	Physical Education	0

#### Summer

0804-299 Co-op tok Experience

##### Second Year

0804-221	Advanced Typing I	3
0804-284	Fundamentals of Management	3
0801-201	General Accounting I	3
	Communication	2
	English	4
		15

0804-222	Advanced Typing II	3
0801-202	General Accounting II	3
0802-210	Data Processing for Business Occupations	3
	Communication	2
	English	4
	Physical Education	0
		15

0804-286	Fundamentals of Marketing or	3
0847-147	Law and Society	2
0804-301	Vtbrd Processing I	4
0804-230	Office Practice and Procedures Seminar	2
0847-102	Life After College	1
	General Education Course Elective	2
	Communication	2
	English Elective	4

17-18

### Fundamentals of Marketing Registration #0804-286

This course is an introduction to the field of marketing and its strategy. Topics include consumer behavior and its effect in the marketplace, product research and planning, pricing, distribution channels, marketing institutions, advertising and promotion, and organization.

CLASS 3, CREDIT 3 (S)

PREREQUISITE: 0804-101

### Applied Business Techniques Registration #0804-291

This course gives students an opportunity to review skill-oriented coursework prior to graduation and job entry. Skill review includes production and speed typing, business machines, payroll procedures, records management techniques, and word processing operations and applications. Job preparation activities are completed with the assistance of an employment opportunities specialist.

CLASS 4, CREDIT 2 (S)

**Office Practice and Procedures: AA.S. Degree—NBTP (0804)****Typical Course Sequence****Fall Term****Winter Term****Spring Term****First Year**

		<b>Cr.Hrs.</b>
0804-111	Beginning Typing I	2
0804-211	Business Procedures I	3
0817-105	Office Procedures Math	3
0847-101	Job Search Process	1
0804-101	Orientation to Business	3
	English	4
		16

		<b>Cr. Hrs.</b>
0804-112	Beginning Typing II	2
0804-212	Business Procedures II	3
0817-122	Algebra IA	3
0847-100	Dimensions of	
	College Life	2
	Communication	2
	English	4
	Physical Education	0
		16

		<b>Cr.Hrs.</b>
0804-113	Beginning Typing III	2
0804-213	Business Procedures III	3
0804-110	Business English	3
0817-123	Algebra IB	3
	Communication	2
	English	4
	Physical Education	0
		17

**Summer**

0804-299	Co-op W>rk Experience
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**Second Year**

0804-221	Advanced Typing I	3
0804-284	Fundamentals of	
	Management	3
0801-201	General Accounting I	3
	Communication	2
	English	4
		15

0804-222	Advanced Typing II	3
0801-202	General Accounting II	3
0802-210	Data Processing for	
	Business Occupations	3
	Communication	2
	English	4
	Physical Education	0
		15

0804-286	Fundamentals of	
	Marketing	3
0804-301	Word Processing I	4
0804-230	Office Practice and	
	Procedures Seminar	2
	Liberal Arts	4
	Communication	2
		15

**Summer**

0804-299	Co-op Work Experience
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**Third Year**

0804-302	Word Processing II	4
0847-147	Law and Society	2
	Liberal Arts	4
	General Education	
	Course Elective	2
		12

0804-303	Word Processing III	4
	Liberal Arts	4
	Liberal Arts	4
		12

0804-304	Word Processing IV	4
0804-399	Independent Study	
	Office Practice	
	and Procedures	2
0847-102	Life After College	1
	Liberal Arts	4
	General Education	
	Course Elective	2
		13

**Co-op Work Experience****Registration #0804-299**

CREDIT 0 (Su)

**Word Processing I****Registration #0804-301**

This course provides an introduction to basic word processing concepts and a discussion of various types of word processing office systems and procedures. Students will perform basic applications using an IBM Displaywriter word processing system. Students will create, revise, format, and print one- and two-page documents using magnetic disk storage.

CLASS 4, CREDIT 4 (F, W, S)

PREREQUISITE: 0804-222

**Word Processing II****Registration #0804-302**

This self-paced course provides a continuation of the word processing concepts and applications presented in Word Processing I. Using the IBM Displaywriter system, students will prepare multi-page documents, develop supplemental dictionaries, utilize the system's global function, and produce repetitive correspondence using advanced formatting procedures.

CLASS 4, CREDIT 4 (F, W, S)

PREREQUISITE: 0804-301

**Word Processing III****Registration #0804-303**

This self-paced course provides a continuation of word processing concepts and word processing applications presented in Word Processing II. Using the IBM Displaywriter system, students will create and revise documents using indented format procedures and typestyle changes. Students also will create and revise tables containing numbers and text.

CLASS 4, CREDIT 4 (F, W, S)

PREREQUISITE: 0804-302

**Word Processing IV****Registration #0804-304**

This self-paced course contains the concepts and applications for creating, maintaining, and printing files. Using the IBM Displaywriter system, students will use files to create repetitive letters, lists, and reports. Students also will be exposed to advanced files applications.

CLASS 4, CREDIT 4 (F, W, S)

PREREQUISITE: 0804-303

**Independent Study****Registration #0804-399**

CREDIT Variable

# Architectural Technology

**Career Exploration:**  
**Architectural Technology**  
**Registration #0808-100**

This course provides students with information regarding careers in architectural technology. Activities may include field trips, hands-on experiences, career information presentations, and interaction with graduates of the program and professionals in the field. These experiences will help students understand work activities, working conditions, and the work setting.  
LAB 3, CREDIT 1 (F, W, S)

**Construction Terminology**  
**Registration #0808-110**

This course introduces students to the basic technical vocabulary for the construction industry. Topics include drafting equipment and procedures, materials, structural components, mechanical and electrical systems, site work, construction equipment, and procedures.  
CLASS 4, CREDIT 4 (F)

**Construction Drafting I**  
**Registration #0808-111**

This course introduces students to the basic drafting techniques for construction projects. Topics include line quality, lettering, scale measurement, dimensioning, drafting media and equipment, graphic reproduction methods, sheet layout, floor plans, site plans, sections, and isometric views. Students will start to develop a portfolio of their best work.  
LAB 6, CREDIT 2 (F)  
COREQUISITE: 0808-110

**Construction Drafting II**  
**Registration #0808-112**

In this course, students continue to learn and practice basic drafting techniques for construction projects. Topics include field measurement and measured drawings, preliminary drawings, basic rendering, base maps, perspectives, and site plans.  
LAB 6, CREDIT 2 (W)  
PREREQUISITE: 0808-111  
COREQUISITE: 0808-201

**Construction Drafting III**  
**Registration #0808-113**

Students continue to learn and practice basic drafting techniques. They also learn to make three-dimensional models. Topics include building models, topographic models, presentation drawings from sketches, freehand drawings, measured drawings from field measurements, topographic contour maps from spot elevations, and design development drawings from preliminary drawings.  
LAB 6, CREDIT 2 (S)  
PREREQUISITE: 0808-112  
COREQUISITE: 0808-202

## C.O.R.E. Year Experience

Most students are required to enroll in the C.O.R.E. year sequence (Career Orientation and Exploration). This experience is three quarters in length and includes an in-depth sampling of program offerings within Engineering Technologies, as well as coursework in Mathematics, English, Communication, and General Education.

## C.O.R.E. Year-Engineering Technologies (NETG)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr.	Hrs.
0817-122	Algebra IA	3	
0847-100	Dimensions of College Life	2	
	Career Exploration	1	
	Communication	2	
	English	4	
		12	

#### Winter Term

		Cr.	Hrs.
0817-123	Algebra IB	3	
	Career Exploration*	1	
	General Education	3	
	Communication	2	
	English	4	
		13	

#### Spring Term

		Cr.	Hrs.
0817-126	Algebra IIA	3	
	Career Exploration*	1	
	General Education**	3	
	Communication	2	
	English	4	
		13	

\*Students must choose at least three of the following career exploration courses: 0808-100 (Architectural Technology), 0809-100 (Civil Technology), 0810-100 (Industrial Drafting Technology), 0811-100 (Electromechanical Technology), 0813-100 (Manufacturing Processes). Students must sample a major to be admitted to it.

\*\*The departments encourage students to start Physics after completing Algebra IB. Students may register for Technical Physics 1 instead of General Education.

## Architectural Drafting: Diploma—NETD (0808)

### typical Course Sequence

#### Fall Term

##### First Year

		Cr.	Hrs.
0817-126	Algebra IIA	3	
0808-110	Construction Terminology	4	
0808-111	Construction Drafting I	2	
0847-100	Dimensions of College Life	2	
	Communication	2	
	English	4	
	Physical Education	0	
		17	

#### Winter Term

		Cr.	Hrs.
0817-127	Algebra IIB	3	
0808-201	Construction Methods and Procedures I	3	
0808-112	Construction Drafting II	2	
0818-100	Technical Physics I	3	
	English	4	
	Physical Education	0	
		15	

#### Spring Term

		Cr.	Hrs.
0817-124	Geometry	3	
0808-202	Construction Methods and Procedures II	3	
0808-113	Construction Drafting III	2	
0818-125	Construction Technology Physics II	3	
	Communication*	2	
	Physical Education	0	
		13	

##### Second Year

0808-211	Architectural Materials I	3	
0808-221	Architectural Design Drafting I	4	
0808-377	Building Equipment	3	
0818-126	Construction Technology Physics III	3	
0847-101	Job Search Process	1	
		14	

0808-212	Architectural Materials II	3	
0808-222	Architectural Design Drafting II	4	
0808-224	Construction Computations	2	
0808-390	Architectural Technology Seminar	2	
	General Education	2	
		13	

0808-220	Principles of Structural Systems	4	
0808-223	Architectural Design Drafting III	4	
0808-375	Architectural History	2	
0808-376	Building Estimating	2	
0809-241	Mapping I	2	
0847-102	Life After College	1	
		15	

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

### Construction Methods and Procedures I Registration #0808-201

This is the first of two courses that orient students to the processes of building project development in design offices and at construction sites. This course concentrates on the processes of preliminary design, design development, production of contract documents, and bidding. Topics include roles of owners, consultants, and contractors; working drawings; specifications; analysis of total project; and bidding.

CLASS 3, CREDIT 3 (W)  
PREREQUISITE: 0808-110

### Construction Methods and Procedures II Registration #0808-202

This course continues the orientation of students to the total building project development. In this course, students learn about construction processes. Topics include fabrication, placement, support, and fastening of building parts; identification and understanding of construction equipment; and scheduling of construction operations.

CLASS 3, CREDIT 3 (S)  
PREREQUISITE: 0808-201

### Architectural Materials I Registration #0808-211

This course provides information about materials used in construction. Students learn the characteristics, origins, sources, standard shapes, sizes, and units of measure for materials and manufactured products. Students use the standard referencing and indexing system for materials and products.

CLASS 3, CREDIT 3 (F)  
PREREQUISITE: 0808-202

### Architectural Materials II Registration #0808-212

In this course, students apply information from the previous course, Architectural Materials I. Topics include building codes, comparison of materials, selection of materials and products for specific applications, and detailing.

CLASS 3, CREDIT 3 (W)  
PREREQUISITE: 0808-211

### Principles of Structural Systems Registration #0808-220

Students identify and describe the major structural systems and their components. These systems include steel-frame, cast-in-place concrete, precast concrete, masonry, steel joists, trusses, light frame, and heavy timber. Students read structural framing plans, details, and schedules.

CLASS 4, CREDIT 4 (S)  
PREREQUISITE: 0808-212

## Architectural Technology: AA.S. Degree—NETA (0808)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0817-127	Algebra KB	3
0808-110	Construction Terminology	4
0808-111	Construction Drafting I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		17

##### Second Year

0817-201	College Algebra, Trigonometry, and Analytic Geometry I	3
0808-211	Architectural Materials I	3
0808-221	Architectural Design Drafting I	4
0818-126	Construction Physics III	3
		13

##### Third Year

0808-340	Planning Project	5
0808-377	Building Equipment	3
0809-250	Statics	4
0847-101	Job Search Process	1
	Liberal Arts	4
		17

#### Winter Term

		Cr. Hrs.
0817-124	Geometry	3
0808-201	Construction Methods I	3
0808-112	Construction Drafting II	2
0818-100	Technical Physics I	3
	English	4
	Physical Education	0
		15
0817-202	College Algebra, Trigonometry, and Analytic Geometry II	3
0808-212	Architectural Materials U	3
0808-222	Architectural Design Drafting II	4
	Liberal Arts	4
		14

0808-351	Architectural Project I	5
0808-390	Architectural Technology Seminar	2
0809-260	Strength of Materials	4
	Liberal Arts	4
		15

#### Spring Term

		Cr. Hrs.
0817-128	Trigonometry	3
0808-202	Construction Methods II	3
0808-113	Construction Drafting III	2
0818-125	Construction Physics II	3
	Communication*	2
	Physical Education	0
		13
0808-220	Principles of Structural Systems	4
0808-223	Architectural Design Drafting III	4
0809-241	Mapping I	2
	Liberal Arts	4
		14
0808-352	Architectural Project II	5
0808-375	Architectural History	2
0808-376	Building Estimating	2
0847-102	Life After College	1
	Technical Elective	1-3
	Liberal Arts	4
		15-17

\* Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

### **Architectural Design Drafting I, II, III Registration #0808-221, 222, 223**

In this sequence of three courses, students learn drafting production techniques, production scheduling, and self-monitoring of progress. Students will produce drawings for one or more building projects during the three courses. The process will include preliminary drawings, design development, architectural working drawings, and working drawings for the mechanical, electrical, or structural elements of the project. Drawings may include cover sheets; site plans; floor plans; interior and exterior elevations; building, wall, and detail sections; interior and exterior perspectives; axonometric views; schedules; and diagrams.

LAB 12, CREDIT 4 (0808-221-F, 0808-222-W, 0808-223-S)

PREREQUISITES: 0808-113 for 0808-221  
0808-221 for 0808-222  
0808-222 for 0808-223

### **Construction Computations Registration #0808-224**

This course introduces students to the basic techniques for calculating linear, area, volume, and angular quantities. Students apply basic math, algebra, geometry, right angle trigonometry, law of sines, and law of cosines.

CLASS 2, CREDIT 2 (W)

PREREQUISITES: 0817-124, 0817-127

### **Co-op Work Experience**

#### **Registration #0808-299**

CREDIT 0 (Su)

### **Planning Project**

#### **Registration #0808-340**

This course introduces students to the basic techniques for planning surveys. These include base map preparation, data collection from field surveys and public records, data base management, data analysis, graphic presentation of data, project organization, and work discipline skills. Students work as a team to perform an original planning survey. The team cooperates with a local planning agency. Students work in the field and in the lab.

LAB 15, CREDIT 5 (F)

PREREQUISITE: 0808-223

### **Architectural Projects I, II Registration #0808-351, 352**

In this sequence of two courses, students complete one or more building design projects. Activities may include field inspection and measurement, measured drawings, preliminary design, presentation drawings, design development, models, and working drawings. The courses simulate the environment of an architectural office.

LAB 15, CREDIT 5 (0808-351-W, 0808-352-S)

PREREQUISITES: 0808-340 for 0808-351  
0808-351 for 0808-352

### **Architectural History**

#### **Registration #0808-375**

Students learn the major elements of architectural styles and building technologies throughout the history of western architecture. This provides a background for discussion of current topics in the field of building design and construction.

CLASS 2, CREDIT 2 (S)

### **Building Estimating**

#### **Registration #0808-376**

Students learn and apply basic concepts and skills for calculating the cost of a building project.

Topics include elements of project cost, quantity survey techniques, material costs, installation costs, unit cost information sources, cost analysis, adjustments for locality, historical cost indexes, contingencies, overhead, and profit.

CLASS 2, CREDIT 2 (S)

PREREQUISITE: 0817-128 or 0808-224

### **Building Equipment**

#### **Registration #0808-377**

Students learn to identify and understand the basic equipment and operation of the mechanical and electrical systems in a building. These systems include water supply, drainage, fire protection, heating, ventilating, air conditioning, power, lighting, and conveying systems. Students become acquainted with the graphic representation for these systems in working drawings.

CLASS 3, CREDIT 3 (F)

PREREQUISITE: 0808-202

### **Architectural Technology Seminar**

#### **Registration #0808-390**

This course helps students prepare for their job search and for employment. Topics related to job search include applications, resumes, interviews, and use of a portfolio. Topics related to the world of work include taxes, insurance, employee benefits, credit ratings, marriage, and deaf professionals.

CLASS 1, LAB 3, CREDIT 2 (W)

### **Independent Study**

#### **Registration #0808-399**

CREDIT Variable

## NETC (0809)

# Civil Technology

### Career Exploration: Civil Technology Registration #0809-100

This course provides students with information regarding a career in civil technology. Activities may include field trips, hands-on experiences, career information presentations, and interaction with graduates of the program and professionals in the field. These experiences help students understand work activities, working conditions, and the work setting.  
LAB 3, CREDIT 1 (F, W, S)

### Surveying I Registration #0809-231

This is the first of two courses in which students learn the basic techniques of land measurement. Topics include technical vocabulary, distance measurement, angular measurement, differential leveling, traverse surveying, and computations. Students have hands-on experience with surveying equipment in the field.  
CLASS 3, LAB 3, CREDIT 4 (S)  
PREREQUISITE: 0817-128  
COREQUISITE: 0809-241

### Surveying II Registration #0809-232

Students continue to learn the basic techniques of land measurement. Topics include electronic distance measurement (EDM), theodolites, modern levels, deed descriptions, deed research, tape locations, horizontal and vertical curves, aerial surveying, and surveying computations. Students have hands-on experience with surveying equipment in the field.  
CLASS 1, LAB 6, CREDIT 3 (F)  
PREREQUISITES: 0809-231, 0809-241  
COREQUISITE: 0809-242

### Mapping I Registration #0809-241

Students learn the basic techniques of making drawings to describe land and land improvements. Topics include computation of angles, distances, bearings, area, coordinates, and closure error; reduction of field notes; contour mapping; profiles, slopes, and drainage networks; cut and fill calculations; and site planning. Students draw with pencil and ink on a variety of media.  
CLASS 1, LAB 3, CREDIT 2 (S)  
PREREQUISITE: 0808-113

### Mapping II Registration #0809-242

Students apply skills learned in Mapping I to complete a site planning project. Requirements for the project include topographic, traverse, and highway mapping; cut and fill calculations; drafting with pencil and ink on a variety of media; and graphic reproduction.  
CLASS 1, LAB 3, CREDIT 2 (F)  
PREREQUISITES: 0809-231, 0809-241  
COREQUISITE: 0809-232

## Civil Technology: AA.S. Degree—NETC (0809)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0817-127	Algebra IIB	3
0808-110	Construction Terminology	4
0808-111	Construction Drafting I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		17

##### Second Year

0817-201	College Algebra, Trigonometry, and Analytic Geometry I	3
0809-250	Statics	4
0809-285	Civil Technology Seminar	2
0818-125	Construction Physics II	J
		12

##### Third Year

0809-232	Surveying II	3
0809-242	Mapping II	2
0809-321	Structural Design Drafting I	4
0809-340	Fundamentals of Fluid Mechanics	4
0847-101	Job Search Process	1
	Liberal Arts	4
		18

#### Winter Term

		Cr. Hrs.
0817-124	Geometry	3
0808-210	Construction Methods I	3
0808-112	Construction Drafting II	2
0818-100	Technical Physics I	3
	English	4
	Physical Education	0
		15

0817-322	Structural Design Drafting II	4
0809-350	Highway Design and Construction	4
0809-390	Construction Seminar	2
	Liberal Arts	4
		14

#### Spring Term

		Cr. Hrs.
0817-128	Trigonometry	3
0808-202	Construction Methods II	3
0808-113	Construction Drafting III	2
0818-126	Construction Physics III	3
	Communication*	2
	Physical Education	0
		13

0809-231	Surveying I	4
0809-241	Mapping I	2
0809-284	Engineering Materials	4
0809-290	Computer Program	3
	Liberal Arts	4
		17

0809-323	Structural Design Drafting III	4
0809-385	Principles of Environmental Technology	4
0847-102	Life After College	1
	Technical Elective	1-3
	Liberal Arts	4
		14-16

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

### Statics Registration #0809-250

This course requires students to apply physical concepts of equilibrium in co-planar force systems to structural members. Topics include vectors, forces, moments, equilibrium, distributed forces, centroids, and centers of gravity. Students calculate reactions, moments, and internal forces in beams, trusses, and frames.  
CLASS 3, LAB 3, CREDIT 4 (F)  
PREREQUISITES: 0817-124, 0817-128, and 0818-126



### **Strength of Materials** **Registration #0809-260**

Students apply physical concepts of matter to calculate how forces affect structural members. Topics include stress, strain, behavior of common engineering materials, moment of inertia, section modulus, and basic beam theory. Students calculate the maximum tensile, compressive, and shear stresses, and deflection in simple members. They also calculate deflection of beams, and select simple tension, compression, and bending members and their connections.  
CLASS 3, LAB 3, CREDIT 4 (W)  
PREREQUISITE: 0809-250

### **Soil Mechanics** **Registration #0809-283**

This course introduces students to the characteristics of soils related to construction projects. Topics include visual and laboratory classification of soils, compaction, sub-surface investigation, percolation, and soil nomenclature. Students perform laboratory experiments and tests, and write laboratory reports.  
CLASS 3, LAB 3, CREDIT 4 (W)

### **Engineering Materials** **Registration #0809-284**

Students investigate the basic engineering properties of portland cement concrete, portland cement mortar, and asphaltic cement concrete. They learn and practice standard laboratory testing procedures, and write laboratory reports.  
CLASS 2, LAB 6, CREDIT 4 (S)  
PREREQUISITE: 0809-283

### **Civil Technology Seminar** **Registration #0809-285**

This course provides an overview of the field of civil technology. Students learn how the field is related to the profession of civil engineering. The course also introduces research and laboratory report writing, resume writing, and interviewing skills.  
CLASS 1, LAB 3, CREDIT 2 (F)

### **Programming for Civil Technicians** **Registration #0809-290**

This course introduces basic computer programming skills. Topics include keyboard operation, expressions, variables, programs, branching, input, subscripted variables, and loops. Students have hands-on experience on the computer.  
CLASS 2, LAB 3, CREDIT 3 (S)

### **Structural Design Drafting I, II, III** **Registration #0809-321, 322, 323**

In this sequence of courses, students apply the principles of statics and strength of materials and drafting skills. Students learn the basic principles of structural design, estimating quantities, preparation of structural and shop drawings, and structural inspection. The first course and half of the second course concentrate on steel structures. The rest of the second course and the third course concentrate on concrete structures.  
CLASS 2, LAB 6, CREDIT 4 (0809-321-F,  
0809-322-W,  
0809-323-S)  
PREREQUISITES: 0809-260 for 0809-321  
0809-321 for 0809-322  
0809-322 for 0809-323

### **Fundamentals of Fluid Mechanics** **Registration #0809-340**

This course introduces students to the basic principles of fluid statics and fluid flow. Topics include hydrostatic pressures, forces on submerged surfaces, buoyancy, laminar and turbulent flow of incompressible fluids, fluid measurements, and open channel flow. Students perform experiments in the lab.  
CLASS 3, LAB 3, CREDIT 4 (F)

### **Principles of Environmental Technology** **Registration #0809-385**

This course introduces students to the factors affecting the quality of the environment. Topics include testing, regulation, and management of water supplies, waste water, soil erosion, solid wastes, atmospheric pollutants and noise; energy measurement and conservation; visual resource analysis; and environmental impact analysis. Field observations are an important part of this course.  
CLASS 3, LAB 3, CREDIT 4 (S)  
PREREQUISITE: 0809-340

### **Construction Seminar** **Registration #0809-390**

This course helps students prepare for their job search and for employment. Topics related to job search include applications, resumes, interviews, and use of a portfolio. Topics related to the world of work include taxes, insurance, employee benefits, credit ratings, marriage, and deaf professionals.  
CLASS 1, LAB 3, CREDIT 2 (W)

### **Independent Study** **Registration #0809-399** **CREDIT Variable**

NETI (0810)

# Industrial Drafting Technology

## Career Exploration: Industrial Drafting Registration #0810-100

This course provides students with information regarding a career in industrial drafting. Activities may include field trips, hands-on experiences, career information presentations, and interaction with graduates of the program and professionals in the field. These experiences will help students understand work activities, working conditions, and the work setting.  
LAB 3, CREDIT 1 (F, W, S)

## Basic Drafting I Registration #0810-101

This course provides instruction in the principles and techniques of basic drafting for students majoring in other technical programs. The emphasis is on understanding how drawings are made and used in industry.  
LAB 6, CREDIT 2 (F)  
PREREQUISITE: 0817-123

## Basic Drafting II Registration #0810-102

This is a continuation of Basic Drafting I for students who desire or need greater depth of knowledge of drafting in industry. Topics include auxiliary views, sections, isometric and pictorial drawings with greater attention to drawing quality, and applied mathematics.  
LAB 6, CREDIT 2 (W)  
PREREQUISITES: 0810-101, 0817-126

## Manufacturing Processes I, II Registration #0810-131,132

Students are exposed to various traditional and non-traditional manufacturing processes. Students develop an appreciation for tolerancing of manufactured parts.  
LAB 3, CREDIT 1 (0810-131-F, 0810-132-W)  
PREREQUISITES: 0817-128 for 0810-131  
0810-131 for 0810-132

## Basic Technical Drafting I Registration #0810-141

Students learn basic skills of engineering drawing through instruction and drafting projects. Students are introduced to the use of tools and equipment, constructions, orthographic projection, lettering, and basic dimensioning practices.  
CLASS 1, LAB 6, CREDIT 3 (F)  
PREREQUISITES: 0817-126, 0818-156

## Basic Technical Drafting II Registration #0810-142

The major topics of this course are orthographic projection and dimensioning systems. Auxiliary views, sections, and developments are introduced through the use of instructions and projects. Students produce industrial quality drawings.  
CLASS 1, LAB 6, CREDIT 3 (W)  
PREREQUISITE: 0810-141

## Industrial Drafting: Diploma—NET! (0810)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0810-141	Basic Technical Drafting I	3
0817-127	Algebra IIB	3
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		14

##### Second Year

0810-201	Technical Drafting I	5
0810-151	Materials and Processes I	3
0810-131	Manufacturing Processes I	1
0847-101	Job Search Process	1
	Elective	2
		12

#### Winter Term

		Cr. Hrs.
0810-142	Basic Technical Drafting II	3
0817-124	Geometry	3
0818-100	Technical Physics I	3
	Communication	2
	English	4
	Physical Education	0
		15

#### Spring Term

		Cr. Hrs.
0810-143	Basic Technical Drafting III	3
0817-128	Trigonometry	3
0818-135	Technical Physics II	3
	Communication*	2
	English	4
	Physical Education	0
		15

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

## Basic Technical Drafting III Registration #0810-143

Students develop the skills required to produce industrial quality working drawings, which include assembly and detail drawings. Students solve problems related to tolerances, mating parts, fasteners, and standard engineering fits through the use of a project.  
CLASS 1, LAB 6, CREDIT 3 (S)  
PREREQUISITE: 0810-142

## Materials and Processes I Registration #0810-151

Students develop a working knowledge of the various materials and related manufacturing processes used in industry.  
CLASS 3, CREDIT 3 (F)  
PREREQUISITE: 0818-156

## Materials and Processes II Registration #0810-152

Students investigate the properties of metals and plastics, and their characteristics and methods of fabrication.  
CLASS 3, CREDIT 3 (W)  
PREREQUISITE: 0810-151

## Technical Drafting I Registration #0810-201

Students measure and draw parts for a machine. In this lab group project, students produce toleranced working drawings for simple assembly drawings.  
LAB 15, CREDIT 5 (F)  
PREREQUISITE: 0810-143

## Technical Drafting II Registration #0810-202

Students prepare sub-assembly drawings, final assembly drawings, and check layouts of selected mechanical equipment based on detail drawings. This lab simulates group participation in an industrial setting.  
LAB 13, CREDIT 4 (W)  
PREREQUISITE: 0810-201

## Technical Drafting III Registration #0810-203

Students draw schematics, wiring diagrams, and harnesses found in industrial, electrical, and electronic drafting.  
CLASS 1, LAB 10, CREDIT 4 (S)  
PREREQUISITE: 0810-202  
COREQUISITE: 0810-211

### Technical Drafting IV Registration #0810-204

Students design welded structures from realistic engineering requirements. They work in the lab to produce a team-based welding assembly and supporting detail drawings.

LAB 8, CREDIT 3 (F)  
PREREQUISITE: 0810-203

### Technical Drafting V Registration #0810-205

Students solve a complex design problem from realistic engineering data, applying knowledge of power transmission components and mechanisms. This lab course creates a concept layout supported by engineering data.

LAB 9, CREDIT 3 (W)  
PREREQUISITE: 0810-204

### Technical Drafting VI: Seminar Project Registration #0810-206

The student designs a working layout of a complex power transmission problem based on an engineering concept layout. This lab course provides a fully documented layout suitable for drafters to draw all individual parts.

LAB 15, CREDIT 5 (S)  
PREREQUISITE: 0810-205

### Supervised Study in Drafting Registration #0810-211

Students learn about electrical and electronic component selection and application. They design printed circuit boards from simulated industrial specifications and individualized instruction.

LAB 2, CREDIT 1 (S)  
PREREQUISITE: 0810-202  
COREQUISITE: 0810-203

### Statics Registration #0810-213

Students learn the basic principles of statics including: resultants and equilibrium of force systems, trusses containing two-force members, structures containing three-force members, centroids, moments of inertia, and dry friction.

CLASS 6, CREDIT 5 (F)  
PREREQUISITE: 0817-202

### Strength of Materials Registration #0810-214

Students learn the basic concepts of strength of materials, including stress and strain analysis, both elastic and plastic, with emphasis on elastic analysis of axially loaded members, connectors, beams, and columns. The lab experience includes testing of materials utilizing appropriate machines. Field trips to see test demonstrations also occur.

CLASS 3, LAB 3, CREDIT 5 (W)  
PREREQUISITE: 0810-213

## Industrial Drafting Technology: AA.S. Degree—NETI (0810)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0810-141	Basic Technical Drafting I	3
0817-127	Algebra IIB	3
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		14

##### Second Year

0810-201	Technical Drafting I	5
0810-151	Materials and Processes I	3
0810-131	Manufacturing Processes I	1
0817-201	College Algebra, Trigonometry, and Analytic Geometry I	3
	Electives	4
		~16

##### Third Year

0810-204	Technical Drafting IV	3
0810-213	Statics	5
0810-215	Mechanisms	4
0847-101	Job Search Process	1
	Liberal Arts	~4
		17

#### Winter Term

		Cr. Hrs.
0810-142	Basic Technical Drafting II	3
0817-124	Geometry	3
0818-100	Technical Physics I	3
	Communication	2
	English	4
	Physical Education	0
		15

0810-202	Technical Drafting II	4
0810-152	Materials and Processes II	3
0810-132	Manufacturing Processes II	1
0817-202	College Algebra, Trigonometry, and Analytic Geometry II	3
	Liberal Arts	4
		15

0810-205	Technical Drafting V	3
0810-214	Strength of Materials	5
0810-221	Machine Design	4
	Liberal Arts	4
		~16

#### Spring Term

		Cr. Hrs.
0810-143	Basic Technical Drafting III	3
0817-128	Trigonometry	3
0818-135	Technical Physics II	3
	Communication*	2
	English	4
	Physical Education	0
		15

0810-203	Technical Drafting III	4
0817-203	College Algebra, Trigonometry, and Analytic Geometry III	3
0810-211	Supervised Study in Drafting	1
	Liberal Arts	4
	Eleave	3
		15

0810-206	Technical Drafting VI	5
0810-222	Machine Design II	4
0847-102	Life After College	1
	Technical Elective	3
	Liberal Arts	4
		17

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

### Mechanisms Registration #0810-215

Students learn about basic mechanical components such as linkages and levers, and combinations of these devices as they are applied in modern machines. Analysis of force, deflection, velocity, and acceleration are stressed. The lab experience includes mathematical and graphical solution of problems.

CLASS 3, LAB 4, CREDIT 4 (F)  
PREREQUISITE: 0817-202

### Machine Design I Registration #0810-221

This is a study of the analytical design of bearings, clutches, couplings, brakes, springs, gearing systems, and power shafting.

CLASS 3, LAB 3, CREDIT 4 (W)  
PREREQUISITE: 0810-213  
COREQUISITE: 0810-214

### Machine Design II Registration #0810-222

Students learn methods of constructing machine parts and specifications of materials and manufacturing processes.

CLASS 3, LAB 3, CREDIT 4 (S)  
PREREQUISITE: 0810-221

### Co-op Work Experience Registration #0810-299

CREDIT 0 (Su)

### Independent Study Registration #0810-399

CREDIT Variable

**NETM (0811)**

# Electromechanical Technology

**Career Exploration: Electromechanical Technology****Registration #0811-100**

This course provides students with information regarding a career in electromechanical technology. Activities may include field trips, hands-on experiences, career information presentations, and interaction with graduates of the program and professionals in the field. These experiences will help students understand work activities, working conditions, and the work setting.

LAB 3, CREDIT 1 (F, W, S)

**Digital and Analog Systems****Registration #0811-171**

This course is an introduction to logic components and how they are used in machines. Students will study gates, switches, counters, flip-flops, multiplexers, demultiplexers, truth tables, Boolean algebra, logic families, and the difference between analog and digital systems.

CLASS 3, LAB 4, CREDIT 4 (W)

PREREQUISITE: 0811-370

**Technical Graphics****Registration #0811-209**

This course is an introduction to electronic and mechanical drawings. Students learn how to draw using drafting standards. Students learn about electronic symbols, component outlines, block diagrams, schematic diagrams, cable drawings, military standards, and integrated circuits.

LAB 6, CREDIT 2 (S)

PREREQUISITES: 0810-101, 0811-368

**Computational Techniques****Registration #0811-210**

This course emphasizes how the computer can be used to solve problems. Students learn a programming language and develop programming skills. Students are required to solve engineering problems through hands-on computer experiences.

CLASS 3, LAB 3, CREDIT 4 (F)

PREREQUISITE: 0817-128

**Mechanical Components****Registration #0811-211**

This course introduces mechanical devices used in electromechanical equipment. The basic topics covered include torque, work, power, gears, cams, and drive systems. Students will develop basic breadboarding skills.

CLASS 3, LAB 4, CREDIT 4 (S)

PREREQUISITES: 0817-127, 0818-132

**Electrical Circuits I****Registration #0811-213**

This course introduces students to the theory and use of direct current circuits. Students learn about direct current units and measurements, basic circuit laws, networks, Thevenin's theorem, and superposition theorem.

CLASS 3, LAB 6, CREDIT 5 (S)

PREREQUISITES: 0817-127, 0818-132

**Electromechanical Technology: AA.S. Degree—NETM (0811)****Typical Course Sequence****Fall Term****First Year**

		Cr.	Hrs.
0817-126	Algebra IIA	3	
0818-100	Technical Physics I	3	
0810-101	Basic Drafting I	2	
0847-100	Dimensions of College Life	1	
	English	2	
	English	4	
	Physical Education	0	
		15	

**Second Year**

0811-304	Electrical Circuits II	5	
0811-317	Mechanisms	4	
0811-210	Computational Techniques	4	
0817-201	College Algebra, trigonometry, and Analytic Geometry I	3	
0847-101	Job Search Process	1	
		17	

**Third Year**

0811-322	Machines and Power Systems II	4	
0811-325	E/M Devices and Systems II	4	
0811-370	Electronics III	4	
	Liberal Arts	4	
		16	

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

**Electromechanical Concepts****Registration #0811-234**

This course introduces students to the use of optics in engineering applications. Students learn about refraction, reflection, imaging, fiber optics, light emitting diodes, lasers, and optically controlled solid state electronic devices.

CLASS 3, LAB 2, CREDIT 4 (S)

PREREQUISITES: 0811-325, 0811-370

**Tool Skills****Registration #0811-241**

This course introduces students to the use of basic hand tools used by electromechanical technicians. Students learn about safety, measuring, layout techniques, cutting, finishing metal, fasteners, drilling, counterboring, countersinking, tapping, soldering, and wiring. The course requires the completion of several projects.

LAB 6, CREDIT 2 (W)

PREREQUISITE: 0817-122

**Co-op Work Experience****Registration #0811-299**

CREDIT 0 (F, W, S, Su)

**Winter Term**

		Cr.	Hrs.
0817-127	Algebra IIB	3	
0818-135	Technical Physics II	3	
0811-241	Tool Skills	2	
	Communication*	2	
	English	4	
	Physical Education	0	
		14	

**Summer**

0811-299	EMT Co-op Work Experience		
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0811-327	E/M Systems Lab I	2	
0811-171	Digital and Analog Systems	4	
	Technical Elective	4	
	Liberal Arts	4	
		14	

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

**Electrical Circuits II****Registration #0811-304**

This course emphasizes the theory and use of alternating current circuits. Students learn about inductance, capacitance, alternating current circuits, series, and parallel resonant circuits.

CLASS 3, LAB 6, CREDIT 5 (F)

PREREQUISITE: 0811-213

**Mechanisms****Registration #0811-317**

This course emphasizes the motion of machine parts. Students learn about linkages and levers, and the relation of these parts to velocities, accelerations, and forces.

CLASS 3, LAB 4, CREDIT 4 (F)

PREREQUISITE: 0811-211

### **Machines and Power Systems I Registration #0811-321**

In this course, students learn how power is transmitted by using fluids (liquids and gases). Topics covered include the character of the fluids, pumps, valves, cylinders, motors, and the piping used. Students also learn how digital logic is used to control fluid power valves and equipment.  
CLASS 3, LAB 4, CREDIT 4 (W)  
PREREQUISITE: 0811-317

### **Machines and Power Systems II Registration #0811-322**

In this course, students learn how power is transmitted by electricity. Basic topics covered include generators, motors, transformers, and distribution lines. Both alternating and direct current machines are covered.  
CLASS 3, LAB 4, CREDIT 4 (F)  
PREREQUISITE: 0811-324

### **Electromechanical Devices and Systems I Registration #0811-324**

This course introduces students to automatic controls. Students learn about electrical, thermal, hydraulic, and mechanical transducers. Emphasis is on the similar operating characteristics of all kinds of transducers. Students express results using mathematics and graphics.  
CLASS 3, LAB 4, CREDIT 4 (S)  
PREREQUISITES: 0811-321, 0811-368

### **Electromechanical Devices and Systems II Registration #0811-325**

This is the second course in the sequence on the topic of automatic controls. Students learn about the effects on a controlled process when different ways are used to connect the input transducer to the output transducer. The course covers open loop and closed loop systems. Graphic techniques are used to help understand systems.  
CLASS 3, LAB 4, CREDIT 4 (F)  
PREREQUISITE: 0811-324

### **Electromechanical Systems Laboratory I Registration #0811-327**

This is the first course in a two-quarter sequence. The course introduces students to the theory of microprocessor-based control systems. Students learn about software techniques applied to electromechanical systems. This laboratory course emphasizes systems analysis and troubleshooting.  
LAB 6, CREDIT 2 (W)  
PREREQUISITES: 0811-325, 0811-370

### **Electromechanical Systems Laboratory II Registration #0811-328**

This course emphasizes the construction, testing, and troubleshooting of microprocessor-based systems. Students identify and solve problems, and report solutions independently. This course is project based and ties together many of the concepts learned in the electromechanical technology program.  
LAB 6, CREDIT 2 (S)  
PREREQUISITE: 0811-327

### **Circuit Analysis Registration #0811-330**

This course emphasizes the analysis of complex circuits. Students learn about Kirchhoff's Laws, independent and dependent sources, power, equivalent sources and resistances, Thevenin's theorem, Norton's theorem, superposition theorem, mesh analysis, and nodal analysis.  
CLASS 4, CREDIT 4 (W)  
PREREQUISITE: 0811-370

### **Mechanics Registration #0811-332**

This eleave course covers the characteristics of forces and force systems. Emphasis is placed on vectors, levers, moments, free body diagrams, couples, friction, and structure analysis. Problem-solving techniques are stressed throughout the course.  
CLASS 4, CREDIT 4 (W)  
PREREQUISITE: 0811-317

### **Strength of Materials Registration #0811-333**

This course introduces students to the reactions of engineering materials to different types of loading. The course emphasizes the use of standard handbooks, stress and strain relationships, Poisson's ratio, safe loading, and expected deflection of beam and column-shaped machine parts.  
CLASS 3, LAB 3, CREDIT 4 (S)  
PREREQUISITE: 0811-332

### **Advanced Electronics Registration #0811-334**

This course emphasizes the interface between microprocessors and electromechanical devices. Students work on projects that include circuit design, software design, breadboarding skills, and troubleshooting techniques.  
CLASS 3, LAB 3, CREDIT 4 (S)  
PREREQUISITES: 0811-327, 0811-370

### **Electronics I Registration #0811-368**

This course introduces students to basic diode and transistor circuits. Students learn about semiconductor theory, diode circuits, bipolar transistors, transistor biasing circuits, and AC signal amplifiers. Students develop basic measurement and breadboarding skills.  
CLASS 3, LAB 6, CREDIT 4 (W)  
PREREQUISITE: 0811-304

### **Electronics II Registration #0811-369**

This course introduces students to AC amplifiers and their characteristics. Topics of study include transistor AC equivalent circuits, small signal amplifiers, power amplifiers, push-pull amplifiers, and field effect devices. Students develop basic measurement and breadboarding skills.  
CLASS 3, LAB 6, CREDIT 5 (S)  
PREREQUISITE: 0811-368

### **Electronics III Registration #0811-370**

This course introduces students to the theory and application of linear integrated circuits. Students learn about operational amplifier characteristics and applications, regulators and control circuits, and a variety of linear integrated circuits. Students are required to use manufacturers' data sheets and develop proper breadboarding skills.  
CLASS 3, LAB 4, CREDIT 4 (F)  
PREREQUISITE: 0811-369

### **Independent Study Registration #0811-399**

CREDIT Variable

NETN (0812)

## Numerical Control

### **Numerical Control I**

#### **Registration #0812-151**

This course introduces students to computer controlled machine tools. Students develop the skills required to program a machine using several canned cycles, and develop programs that include point to point, linear, and circular interpolation operations.

CLASS 4, LAB 3, CREDIT 4 (W)

PREREQUISITES: 0813-134, 0817-128

### **Numerical Control II**

#### **Registration #0812-152**

Students use the Compact II programming language through time sharing on a remote computer to prepare programs. Pattern translations and rotations, including sets and contouring, are stressed.

CLASS 4, LAB 3, CREDIT 4 (S)

PREREQUISITE: 0812-151

NF.TT (0813)

## Manufacturing Processes

### **Career Exploration:**

#### **Manufacturing Processes**

##### **Registration #0813-100**

This course provides students with information regarding careers in manufacturing processes. Activities may include field trips, hands-on experiences, career information presentations, and interaction with graduates of the program and professionals in the field. These experiences will help students understand work activities, working conditions, and the work setting.

LAB 3, CREDIT 1 (F, W, S)

### **Manufacturing Processes I, II, III**

#### **Registration #0813-131,132, 133**

Students develop the basic skills necessary to use traditional machine tools. Laboratory instruction simulates an industrial environment. Emphasis on safety in the operation of machines is an integral part of the program.

CLASS 1, LAB 8, CREDIT 4 (0813-131-F,  
0813-132-W,  
0813-133-S)

PREREQUISITES: For 0813-131, 0817-123

For 0813-132,0813-131

For 0813-133,0813-132

### **Manufacturing Processes IV, V, VI**

#### **Registration #0813-134,135,136**

Students will be able to supply the theory associated with the set-up and operation of lathes, milling machines, drill presses, grinders, and bench work. Students also are introduced to non-traditional machining. Greater emphasis will be placed on accuracy and tolerance of machine parts. Safety is stressed throughout the courses.

CLASS 1, LAB 8, CREDIT 4 (0813-134-F,  
0813-135-W)

PREREQUISITES: For 0813-134, 0813-133

For 0813-135, 0813-134

For 0813-136, 0813-135

### **Blueprint Reading I, II**

#### **Registration #0813-139,140**

Students develop the skills required to read and interpret prints of engineering drawings of details and assemblies.

CLASS 1, LAB 3, CREDIT 2 (0813-139-F,  
0813-140-W)

PREREQUISITES: For 0813-139, 0817-123

For 0813-140, 0813-139

### **Industrial Materials**

#### **Registration #0813-151**

This course introduces students to the many materials used in industry and the reasons why the final cost of producing a part is influenced by material selection. Metals, plastics, and ceramics will be covered from the perspective of physical, mechanical, and dimensional properties.

CLASS 3, LAB 0, CREDIT 3 (W)

PREREQUISITE: 0813-134

### **Manufacturing Analysis**

#### **Registration #0813-152**

This course introduces students to manufacturing concepts. Students learn about production, management, and sales. The text and class discussions focus on problem solving and industrial operations.

CLASS 3, LAB 0, CREDIT 3 (S)

PREREQUISITE: 0813-134

Welding I  
Registration #0813-153

Students learn about basic oxyacetylene and shielded metal arc welding processes. They will be able to set up and operate equipment properly. Safety rules pertaining to welding are emphasized.

LAB 4, CREDIT 2 (W)  
PREREQUISITE: 0813-134

Precision Measurement  
Registration #0813-154

Students develop the skills necessary to measure to the highest tolerances commonly found in industry. Students measure parts or groups of parts using industrial equipment. Analysis of measurements and problem solving is stressed.  
CLASS 1, LAB 3, CREDIT 2 (S)  
PREREQUISITE: 0813-132

Welding II  
Registration #0813-155

Students develop skills in gas tungsten arc welding, gas metal arc welding, and resistance welding. The course emphasizes proper operation of equipment and related safety.  
LAB 4, CREDIT 2 (S)  
PREREQUISITE: 0813-153

Independent Study  
Registration #0813-399  
CREDIT Variable

Manufacturing Processes: Diploma—NETT (0813)

Typical Course Sequence

Fall Term

First Year

		Cr. Hrs.
0817-126	Algebra IIA	3
0813-131	Manufacturing Processes I	4
0813-139	Blueprint Reading I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		17

Second Year

0813-134	Manufacturing Processes IV	4
0810-101	Basic Drafting I	2
0813-151	Industrial Materials	3
0847-101	Job Search Process	1
	Electives	4
		14

Winter Term

		Cr. Hrs.
0817-127	Algebra IIB	3
0813-132	Manufacturing Processes II	4
0813-140	Blueprint Reading II	2
	Communication	2
	English	4
	Physical Education	0
		15

0813-135	Manufacturing Processes V	4
0810-102	Basic Drafting II**	2
0813-153	Wilding I**	2
0812-151	Numerical Control I**	4
	Elective	2
		14

Spring Term

		Cr. Hrs.
0817-128	Trigonometry	3
0813-133	Manufacturing Processes III	4
0813-154	Precision Measurement	2
	Communication*	2
	English*	4
	Physical Education	0
		15

0813-136	Manufacturing Processes VI	4
0813-152	Manufacturing Analysis**	3
0813-155	Wilding II**	2
0812-152	Numerical Control II* *	4
0847-102	Life After College	1
		14

\*Students who enter this program without the C.O.R.E. year experience will need to take additional English and Communication courses.

\*\*Technical Electives: Students must take two or three suggested courses each quarter but must enroll in a minimum of 12 credit hours each quarter.

NTSB (0814)

## Biology

### MLT Biology I

#### Registration #0814-107

This is a preparatory program for students interested in pursuing the Medical Laboratory Technology program. Principles of inorganic and organic chemistry are studied as they relate to biology. The metric system, cell theory, cellular transport mechanisms, mitosis, meiosis, and nucleotides are among the topics treated. Laboratory activities include the microscopic study of plant and animal cells, the performance of experiments related to concepts learned during class sessions, and additional activities that emphasize the application of the scientific method.

CLASS 4, LAB 4, CREDIT 4 (F)

### MLT Biology II

#### Registration #0814-108

This course is a continuation of MLT Biology I. It is designed to introduce students to principles of biochemistry: the synthesis and metabolism of carbohydrates, proteins, and lipids, DNA, and ATP. Photosynthesis and other biochemical pathways are also treated. The laboratory program is designed to reinforce the principles and concepts learned during the class sessions.

CLASS 4, LAB 4, CREDIT 4 (W)

### MLT Biology III

#### Registration #0814-109

This course is a continuation of MLT Biology II. The principles of general genetics, anatomy, physiology, histology, hematology, and microbiology are learned in this segment of the Biology program. Laboratory activities provide students with opportunities to apply the principles learned in class and to acquire the basic and transitional skills needed for the Medical Laboratory Technology program.

CLASS 4, LAB 4, CREDIT 4 (S)

NTSC (0815)

## Chemistry

### MLT Chemistry I

#### Registration #0815-115

This course is for students preparing to pursue the Medical Laboratory Technology program. The course includes an introduction to exponential notation, measurement, the fundamental laws and concepts of matter and energy, formula writing, chemical bonding, and the mole concept. Laboratory work includes general techniques of metric measurement, density, physical properties, and evidence of chemical reactions. Introduction to radiochemistry, volume, temperature-pressure relationships of gasses, reactivity of metals, and factors that affect reaction rates are measured qualitatively.

CLASS 4, LAB 4, CREDIT 4 (F, W)

PREREQUISITE: **0817-123**

COREQUISITE: **0817-126**

### MLT Chemistry II

#### Registration #0815-116

This is a continuation of MLT Chemistry I. Solubility, concentration of solutions, calculations involving acid-base titrations, and pH are covered.

Introduction to organic chemistry begins with hydrocarbon nomenclature. Discussion of the alcohols, phenols, ethers, aldehydes, and ketones as well as organic acids and their derivatives are included. Laboratory experiences related to these topics focus on the various methods of pH measurement and the use of indicators. Controlling acidity through the use of buffers, and analysis of the acid and alkali content of some consumer products are conducted. Chemical and physical properties of some organic compounds are examined. These include the alcohols, phenols, mercaptans, aldehydes, and ketones as well as carboxylic acids and esters.

CLASS 4, LAB 4, CREDIT 4 (W, S)

PREREQUISITES: **0815-115, 0817-126**

COREQUISITE: **0817-127**

### MLT Chemistry III

#### Registration #0815-117

This is a continuation of MLT Chemistry II. This part of the chemistry program lays the foundation for the relationship between chemistry and living organisms. Topics include the amines, carbohydrates, and lipids as well as amino acids and proteins. Descriptions of the structure and function of the nucleic acids, vitamins, and hormones bring together the interrelationships of biochemical reactions. Laboratory procedures include preparation, identification, and qualitative tests for the amines, amides, carbohydrates, triglycerides, and amino acids. Preparation and examination of aspirin, nylon, and soaps and analysis of a peanut conclude this portion of the course. If time permits, students may explore instrumental analysis involving use of spectrophotometers and gas chromatography.

CLASS 4, LAB 4, CREDIT 4 (S)

PREREQUISITES: **0815-116, 0817-127**

### Introduction to College Chemistry I

#### Registration #0815-215

This course is for students enrolled in programs requiring review or preparation for College of Science chemistry courses. The course includes principles of measurement, composition of matter, energy changes, behavior of gases, atomic structure, and bonding. Laboratory work includes experiments related to topics covered.

CLASS 4, LAB 4, CREDIT 4 (F, W)

PREREQUISITE: **Math completion or concurrent registration in 0817-127**

### Introduction to College Chemistry II

#### Registration #0815-216

This is a continuation of Introduction to College Chemistry I with the study of solutions and equilibrium principles. Also included are stoichiometric solution calculations involving ionization and solubility product constants, and acid-base pH calculations. Laboratory work includes qualitative analysis of common cations and anions.

CLASS 4, LAB 4, CREDIT 4 (W, S)

PREREQUISITES: **0815-215, 0817-127**

### Introduction to College Chemistry III

#### Registration #0815-217

This course provides an introduction to quantitative analysis utilizing both gravimetric and volumetric techniques. Topics include evaluation of analytical data, gravimetric analysis, acid-base titrations, redox titrations, and principles of colorimetry and spectrophotometry.

CLASS 4, LAB 4, CREDIT 4 (S)

PREREQUISITES: **0815-216, 0817-127**



# Medical Laboratory Technology

**Anatomy/Physiology and Disease I, II**  
**Registration #0816-101,102**

This is a disease-related physiology course dealing with human anatomy. Emphasis is placed on anatomical structure, function, and related diseases.  
CLASS 2, LAB 2, CREDIT 4 (0816-101-F, 0816-102-W)

**Introduction to Medical Parasitology**  
**Registration #0816-105**

This course introduces students to the host/parasite relationship, life cycle, and identification of protozoa and metazoa parasites. Preserved microscopic slides, 35mm captioned slides, and laboratory preparations are utilized.  
CLASS 1, LAB 2, CREDIT 2 (S)

**Basic Histology**  
**Registration #0816-111**

Theory and practice in tissue preparation for paraffin techniques are presented. Laboratory techniques include preparation of solutions, stains, sectioning, slide mounting, and staining of various tissues. Students develop skills in the operation, use, and care of histologic instruments.  
CLASS 12, CREDIT 6 (S)

**Electrocardiography**  
**Registration #0816-115**

This course emphasizes use of the machine techniques for selecting and monitoring tracings of simple heart maladies.  
CLASS 4, CREDIT 2 (W)

**Urinalysis**  
**Registration #0816-121**

This course provides theory and practice in the estimation of urinary constituents, microscopic examination, and additional tests of clinical significance.  
CLASS 4, CREDIT 2 (F)

**Hematology**  
**Registration #0816-122**

This course is a study of routine blood tests, including white count, red count, hematocrit, hemoglobin, sedimentation rate, differential count, and the calculations of the hemacytometer. Emphasis also is placed on recognition of normal and abnormal cellular elements of the blood.  
CLASS 8, CREDIT 4 (F)

**Histologic Assistant: Certificate—NTSL (0816)**

**Typical Course Sequence**

Fall Term			Winter Term			Spring Term		
Pre-Technical Requirements								
		Cr. Hrs.			Cr. Hrs.			Cr.Hrs.
0814-107	MLT Biology I	4	0814-108	MLT Biology II	4	0814-109	MLT Biology III	4
0815-115	MIT Chemistry I	4	0815-116	MLT Chemistry II	4	0815-117	MLT Chemistry III	4
0817-123	Algebra IB	3	0817-126	Algebra IIA	3	0817-127	Algebra IIB	3
0847-100	Dimensions of College Life	2	0847-101	Job Search Process	1		Communication	2
	Communication	2		Communication	2		English	4
	English	4		English	4		Physical Education	0
	Physical Education	0		Physical Education	0			17
		19			18			
First Year								
0816-101	Anatomy/Physiology and Disease I	4	0816-102	Anatomy/Physiology and Disease II	4	0816-299	MLT Co-op V	crk Experience
0816-111	Basic Histology	6	0816-115	Electrocardiography	2			
0817-170	MLT Mathematics	3	0816-211	Histology II	6			
	Communication	2	0847-102	Life After College	1			
	English	4		Communication	2			
		19		English	4			
					19			

### Advanced Hematology Registration #0816-123

This course provides instruction and practice in automated methods of cell counting, quality control, red cell description, reticulocyte counts, and test procedures in coagulation. The course emphasizes the correlation between laboratory work and diseases such as anemia, leukemia, bleeding, and coagulation disorders.  
CLASS 9, CREDIT 5 (W)  
PREREQUISITE: 0816-122

### Microbiology I Registration #0816-131

This course is a study of microscopic organisms such as viruses, bacteria, yeast, fungi, and algae. The course also includes clinical procedures for the study of common disease-causing organisms. Techniques in the laboratory include media preparation, sterilization, culturing, mounting, staining, agglutination, and biochemical reactions.  
CLASS 9, CREDIT 5 (S)

### Immunology/Serology Registration #0816-132

The nature of immunity, the basic principles of the immune system, immunoassay, immunopathology, histocompatibility, and oncoimmunology are among the topics considered in this course. A variety of routine and special immunological procedures are learned during the laboratory sessions.  
CLASS 2, LAB 3, CREDIT 3 (W)

### Blood Banking Registration #0816-133

The theory and routine blood banking procedures are taught in this course. Emphasis is placed on quality control, ABO grouping, subgrouping, Rh Factor, Coombs tests, antibody screening, cross-matching, transfusion reactions, erythroblastosis fetalis, preparation and storage of blood components, and record keeping.  
CLASS 2, LAB 3, CREDIT 3 (S)

### Electron Microscopy Registration #0816-140

Electron microscopy is an elective course offered to students who have maintained a B average in the Medical Laboratory Technology program. Electron optics and the mechanics of the electron microscope are studied prior to any work on the electron microscope. The principles of specimen preparation, fixation, embedding, microtomy, staining, and photographic processing are studied in depth. The course grade is based on the quality of the final products.  
CLASS 2, LAB 5, CREDIT 3 (F, W, S)  
PREREQUISITES: 0814-109 and 0816-111

### Photomicroscopy Registration #0816-141

This is a specialized study in photographing histological specimens, animal and plant, in color and black and white. Procedures include not only brightfield, but also darkfield and phase microscopy. The course includes treatment of film processing and printing techniques.  
CLASS 1, LAB 2, CREDIT 3 (F, W, S)  
PREREQUISITE: 0814-109

## Medical Laboratory Technology: AA.S. Degree—NTSL (0816)

### Typical Course Sequence

#### Fall Term

##### Pre-Technical Requirements

		Cr.Hrs.
0814-107	MIT Biology I	4
0815-115	MIT Chemistry I	4
0817-123	Algebra IB	3
	Communication	2
	English	4
	Physical Education	0
		17

#### First Year

0816-101	Anatomy/Physiology and Disease I	4
0816-121	Urinalysis	2
0816-122	Basic Hematology	4
0817-170	MIT Math	3
0847-101	Job Search Process	1
	English	4
		18

#### Winter Term

		Cr. Hrs.
0814-108	MIT Biology II	4
0815-116	MIT Chemistry II	4
0817-126	Algebra IIA	3
0847-100	Dimensions of College Life	2
	English	4
	Physical Education	0
		17

#### Summer

0816-299	Co-op Work Experience	
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#### Spring Term

		Cr. Hrs.
0814-109	MLT Biology III	4
0815-116	MIT Chemistry III	4
0817-127	Algebra IIB	3
	Communication	2
	English	4
	Physical Education	0
		17
0816-131	Microbiology I	5
0816-133	Blood Bank Procedures	3
Optional	MLT Elective	3-6
	(Choose one from the following:)	
0816-111	Basic Histology (6)	
0816-140	Electron Microscopy (3)	
0816-141	Photomicroscopy (3)	
	Liberal Arts	4
		15-18

#### Second Year

0816-201	Clinical Chemistry I	6
0816-232	Microbiology II	6
	Liberal Arts	4
	Communication	2
		18
0816-202	Clinical Chemistry II	5
0816-233	Microbiology III	5
	Liberal Arts	4
	Communication	2
		-16
0816-203	Clinical Chemistry III	5
0816-105	Medical Parasitology	2
0816-224	Laboratory Simulation	
	MIT IV	3
0847-102	Life After College	1
	Liberal Arts	4
		15

**Clinical Chemistry I, II, III****Registration #0816-201, 202, 203**

The three-quarter sequence provides theory and practice in the quantitative and qualitative analyses of physiochemical parameters. The sequence includes fundamental concepts of clinical analysis, the theory and practical application of clinical instrumentation, and the relationship of clinical analysis to the diagnostic process.

CLASS 12, CREDIT 6 (0816-201-F)

CLASS 9, CREDIT 5 (0816-202-W, 0816-203-S)

PREREQUISITES: 0816-201 for 0816-202,  
0816-202 for 0816-203

**Histology II****Registration #0816-211**

This is a continuation of Basic Histology with emphasis on histochemistry, special stains, and tissue preparation techniques.

CLASS 12, CREDIT 6 (W, S)

PREREQUISITE: 0816-111

**Laboratory Simulation****Registration #0816-224**

This course is a review and summary of all specialties included in the total Medical Laboratory Technology program. Students rotate into all departments in the clinical laboratory environment. Students meet one hour per week with Medical Laboratory Technology faculty on campus. The remaining six hours each week are spent on rotation in an affiliated hospital or clinical laboratory under supervised conditions.

CLASS 1, LAB 6, CREDIT 3 (S)

**Microbiology II****Registration #0816-232**

This course is an indepth study of medical bacteriology and the related diseases. Theory and practice are provided in specimen collection, culturing, staining, media preparation and selection, normal flora, identification procedures for disease-producing organisms, susceptibility testing, agglutination reactions, and reporting results.

CLASS 12, CREDIT 6 (F)

PREREQUISITE: 0816-131

**Microbiology III****Registration #0816-233**

This course is a continuation of Microbiology II with an emphasis on special techniques for anaerobic organisms, mycobacteriology, mycology, and virology. The theory portion of the course includes the study of diseases and their symptoms.

CLASS 9, CREDIT 5 (W)

PREREQUISITE: 0816-232

**Co-op Work Experience****Registration #0816-299**

CREDIT 0 (Su)

**Independent Study****Registration #0816-399**

CREDIT Variable

**NTMM (0817)**

# Technical Mathematics

## **Business Mathematics**

### **Registration #0817-104**

This course covers all the topics described in Office Procedures Mathematics, with the addition of the following: retailing and marketing mathematics, depreciation, merchandise inventory valuation, discounting notes, and business insurance.

CLASS 3, CREDIT 3 (F, W, S)

## **Office Procedures Mathematics**

### **Registration #0817-105**

This is a course to improve fundamental skills in arithmetic. Students learn to apply these skills to situations in office procedures. Topics covered are basic mathematical computations, a review of fractions and decimals, calculations involving percentages, simple interest, compound interest, methods of remuneration, commissions, and payroll records. The use of calculators is stressed.

CLASS 3, CREDIT 3 (F, W, S)

## **Medical Records Statistics**

### **Registration #0817-109**

This is an introductory course in statistics needed by the medical records technician. Topics taught include advanced arithmetic operations, use of electronic calculators, tabular organization and graphical representation of data, frequency distributions, mean, mode, median, variance, and standard deviation.

CLASS 3, CREDIT 3 (W)

## **Basic Mathematics**

### **Registration #0817-120**

This is a course to improve fundamental skills in arithmetic. Topics covered are basic mathematical computations, a review of fractions and decimals, and calculations involving percentages. The use of calculators is stressed.

CLASS 3, CREDIT 3 (F, W)

## **Algebra IA, IB**

### **Registration #0817-122,123**

This is a two-quarter sequence of basic introductory courses in algebra. The topics taught include numbers and sets, algebraic operations, linear equations and inequalities, products and factors, algebraic fractions, powers and roots, quadratic equations, and graphing.

CLASS 5, CREDIT 3 (F, W, S)

## **Geometry**

### **Registration #0817-124**

This is a basic course in Euclidean plane geometry, which includes the topics of congruence, similarity, area, parallel lines, circles, regular polygons, and right triangle trigonometry.

CLASS 3, CREDIT 3 (F, W, S)

## **Algebra IIA, IIB**

### **Registration #0817-126,127**

This is the second two-quarter sequence of basic courses in algebra. The topics taught are much the same as Algebra I except the depth of study is greater. Additional topics covered are logarithms, complex numbers, quadratic functions with their graphs, ratios and proportions, and higher order factoring.

CLASS 5, CREDIT 3 (F, W, S)

## **Trigonometry**

### **Registration #0817-128**

This is a basic course in trigonometry. Topics covered include an introduction to the six trigonometric functions, use of trigonometric tables, graphs of trigonometric functions, trigonometric identities, solution of right and oblique triangles, trigonometric equations, and area of a triangle.

CLASS 5, CREDIT 3 (F, W, S)

## **Mathematics for Data Processing**

### **Registration #0817-163**

This course provides basic mathematical skills relevant to the field of data processing. The course emphasizes arithmetic operations in various number systems and logical formulation of problems.

CLASS 3, CREDIT 3 (F, W, S)

## **Medical Laboratory Mathematics**

### **Registration #0817-170**

This course provides mathematical skill supporting medical laboratory procedures. Topics taught include use of electronic calculators, use of logarithms for computation, conversion between English and metric unit systems, temperature conversions, and calculations with molar and percentage solutions.

CLASS 3, CREDIT 3 (S)

## **College Algebra, Trigonometry, and Analytic Geometry**

### **Registration #0817-201, 202, 203**

This is a three-course sequence in college algebra and trigonometry. Topics covered are similar to those studied in 0817-126,127,128, but in some cases are more detailed. Additional topics covered are natural logarithms, solutions of systems of non-linear equations, series and sequences, limits, theory of equations, and selected topics in analytic geometry.

CLASS 3, CREDIT 3 (F, W, S)

## **Independent Study**

### **Registration #0817-399**

CREDIT Variable

NTSP (0818)

# Technical Physics

## Technical Physics I Registration #0818-100

This course is required for all engineering technology students and students preparing for study in the Colleges of Science and Engineering. The course provides background measurement techniques and use of metrics, vector problem solutions, rectilinear motion, dynamic and static forces, Newton's Laws of Motion, work, energy, power, momentum, impulse, energy conservation laws, torque, Law of Moments, rotational motion, wave theory, and uniform circular motion.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: 0817-123

## Construction Technology Physics II Registration #0818-125

The following concepts are taught in this course: heat, temperature, heat transfer, linear and volumetric expansion and contraction, insulation materials, air conditioning, specific heat capacities, calorimetry, fusion and vaporization, energy costs, electrostatics, coulombs law, magnetism, electric and magnetic fields, electrical resistance, AC and DC circuits, fuses and circuit breakers, ohms law, electrical metering, electromagnets, AC and DC motors, electrical power and cost of electricity, transformers, properties of light, reflection and refraction, Snell's Law, photometry and lighting, properties of sound, and acoustical principles.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: 0818-135

## Construction Technology Physics III Registration #0818-126

A variety of topics are covered in this final course: work, friction, machines, physical properties of matter, stress and strain, Young's Modules, Hooke's Law, concurrent forces, vector analysis, linear equilibrium, density and specific gravity, fluid pressure, Boyle's and Charles' laws, Rascal's Principle, fluid dynamics, Bernoulli's Equation, Torricelli's Law, viscous drag, pressure, and velocity in parallel and series pipe systems.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: 0818-135

## Technical Physics II Registration #0818-135

This is the second course required for Industrial Drafting, Electromechanical Technology, and College of Science students. Course topics include: work, friction, machines, physical properties, stress and strain, Young's Modules, Hooke's Law, magnetism, electrostatics, magnetic and electrostatic forces, static and current electricity, lighting, electro-magnet induction, AC and DC motors, electrical meters, photoelectric effect, potential difference and voltage drop, electrical resistance and resistivity, resistor code, electrical circuits, fuses and circuit breakers, ohms law, use of electrical meters, Gauss' Law, principles of capacitors and circuitry, dielectrics, electrical power, and cost of electricity.

CLASS 5, CREDIT 3 (F, W, S)

## Technical Physics III Registration #0818-136

This course is required for Industrial Drafting, Electromechanical Technology, and College of Science students. It includes the following topics: Kirchhoff's Voltage and Current Laws, mesh circuit problem solutions using the determinants and superposition methods, current division and voltage division rules for circuits, Wheatstone bridge mutal and self inductance, Oersted fields, Lenz's Law, inductance in circuits, electrical transformers, structure of alternating current, rms and voltage in AC circuits, inductive and capacitive circuits, electrical resonance, power factor, heat transfer and temperature scales, linear and volumetric expansion and contraction, density and specific gravity, fluid pressure, Boyle's and Charles' laws, and F&scal's Principle.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: 0818-135

## Technical Physics IV Registration #0818-137

This elective course includes topics on characteristics and transmission of sound waves, acoustics and applications of sound, radio communication principles, wave theory and transmission principles, wave theory and transmission principles, Fourier's theorem, standing waves, resonance and harmonics, principles of reflection and refraction, Snell's Law, lenses and prisms, geometrical and wave optics, Gaussian Formula, lens power, optical instruments, use of the oscilloscope, and formation of Lissajous figures.

CLASS 5, CREDIT 3 (F, W, S)

## Optical Finishing Physics I Registration #0818-165

This is a course in metric measurements, reflection, and refraction. Students also learn about spherical and plane mirrors, prisms, convex and concave lenses, dioptric power, the lensmaker's equation, image and object dimensions, and focal length measurements. Emphasis is placed on geometrical (ray) optics.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: 0817-123

## Optical Finishing Physics II Registration #0818-166

This is a course in the structure of the human eye and its functions, prescription of spectacle lenses for near-sightedness, far-sightedness, astigmatism, and other eye problems. The course covers basic principles of optical instruments, magnification, polarization and sunglasses, the electromagnetic spectrum and the theory of colors. Both geometrical (ray) optics and physical (wave) optics are taught.

CLASS 5, CREDIT 3 (F, W, S)

PREREQUISITE: 0818-165

## Independent Study Registration #0818-399

CREDIT Variable

NTSR (0819)

# Medical Record Technology

## Biology I

### Registration #0819-106

This is the first in a three-quarter series of courses. Laboratory activities involving microscopic and macroscopic observations of prepared and live specimens are performed to supplement classroom lecture and discussion. Topics covered include basic atomic structure, molecular biology, origin of life, cellular structure and function, cellular respiration, DNA structure, protein synthesis, mitosis, and the relationship of bacteria and viruses to disease.

CLASS 4, LAB 2, CREDIT 4 (F)

## Biology II

### Registration #0819-107

This course concentrates on human biology. Topics covered include the digestive system, excretory system, circulatory system, respiratory system, and nervous system. Laboratory activities, including the use of prepared specimens, supplement classroom lecture and discussion. Medical terminology is introduced through discussion of exemplary pathological conditions.

CLASS 4, LAB 2, CREDIT 4 (W)

## Biology III

### Registration #0819-108

The final course in this sequence continues to focus on human biology. Topics covered are the endocrine system, reproduction, embryology, meiosis, cellular genetics, and human genetics. Basic medical terminology related to each topic is discussed. Laboratory activities include the dissection of a cat as well as reviewing the anatomy of all body systems studied in MRT Biology II and III.

CLASS 4, LAB 2, CREDIT 4 (S)

## Anatomy/Physiology and Disease I, II

### Registration #0819-111,112

This is a two-quarter, in-depth study of human anatomy and physiology using a systematic approach to basic disease processes. Emphasis is placed on related medical terminology and clinical procedures.

CLASS 5, CREDIT 4 (0819-111-F, 0819-112-W)

PREREQUISITE: 0819-111 for 0819-112

## Medical Record Technology: AA.S. Degree—NTSR (0819)

### Typical Course Sequence

#### Fall Term

##### Pre-Technical Year

		Cr.Hrs.
0819-106	Biology I	4
0819-122	Algebra IA	3
0804-111	Beginning Typing I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English (III)	4
		17

##### First Year

0819-111	Anatomy/Physiology I	4
0819-141	Medical Records Science I	5
0819-161	Medical Terminology I	3
	Communication	2
	English Composition	4
		18

##### Second Year

0819-244	Medical Records Science IV	5
0819-264	Medical Terminology IV	3
0847-101	Job Search	1
	Liberal Arts	4
	Communication	2
		15

#### Winter Term

		Cr.Hrs.
0819-107	Biology II	4
0817-123	Algebra IB	3
0804-112	Beginning Typing II	2
	Communication	2
	English (IV)	4
	Physical Education	0
		15

0819-112	Anatomy/Physiology II	4
0819-142	Medical Records Science II	5
0819-162	Medical Terminology II	3
0804-332	Advanced Typing I	3
	Communication	2
	Physical Education	0
		17

#### Summer

0819-299	Co-op Work Experience	
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#### Spring Term

		Cr. Hrs.
0819-107	Biology III	4
0819-145	Health Organization	4
0817-109	Medical Record Statistics	3
0804-113	Beginning Typing in English (V)	2
		17

0819-143	Medical Records Science III	5
0819-163	Medical Terminology III	3
0804-124	Data Processing	2
0804-301	Word Processing	4
	Liberal Arts	J
		18

**Medical Record Science I**  
**Registration #0819-141**

The career in medical record technology is introduced through discussion, laboratory practice, and clinical practicum at a local acute care facility. Topics covered are the medical record content, record numbering and filing systems, and the medical record profession. Procedures in the lab and practicum include filing, admissions, chart assembly and analysis, and chart deficiencies. CLASS 9, CREDIT 5 (F)

**Medical Record Science II**  
**Registration #0819-142**

This course includes discussion and practical experience in coding of diseases and operations, indexing of code numbers, and various methods used in numbering, filing, and retaining patient charts. CLASS 9, CREDIT 5 (W)

**Medical Record Science III**  
**Registration #0819-143**

This unit continues the practical experience in coding and indexing. Manual and computerized abstracting of statistical data is learned. Health statistics are computed and presented for analysis and interpretation. CLASS 9, CREDIT 5 (S)

**Health Care Organization and Structure**  
**Registration #0819-145**

This course gives an overall introduction to the acute health care delivery system. It includes the composition, responsibilities, and functions of the administrative staff, health care providers, allied health professionals, and hospital departments. The purposes of the health record and who is responsible for the record are discussed. CLASS 5, CREDIT 4 (S)

**Medical Terminology I, II, III**  
**Registration #0819-161,162,163**

These are the first three quarters of a six-quarter sequence. Etymology, definition, pronunciation, spelling, and correct utilization of medical terms are stressed. Terms are discussed in the areas of basic disease processes and pathology, descriptive modifiers, examination, diagnosis, treatment, surgical procedures, anesthesiology, physical medicine, oncology, pharmacology, radiology, and psychiatry. CLASS 3, CREDIT 3 (0819-161-F, 0819-162-W, 0819-163-S)  
PREREQUISITES: 0819-161 for 0819-162  
0819-162 for 0819-163

**Medical Record Science IV**  
**Registration #0819-244**

Students learn about the medical staff organization and responsibilities. Regulatory agencies and information about all associated aspects of health care control is provided. CLASS 9, CREDIT 5 (F)

**Medical Record Science V**  
**Registration #0819-245**

This course includes experience with a computerized tumor registry and supervision of medical record personnel. CLASS 9, CREDIT 5 (W)

**Medical Record Science VI**  
**Registration #0819-246**

This final course includes legal aspects of the health record, a study of the different types of health care facilities with related clinical affiliations at local facilities, and trends in health care delivery systems. CLASS 9, CREDIT 5 (S)

**Pathophysiology**  
**Registration #0819-250**

This course combines knowledge of human physiology with disease processes. The etiology, pathological mechanism, characteristic symptoms, clinical manifestations, and diagnostic and therapeutic procedures of common diseases are covered. CLASS 4, CREDIT 4 (S)

**Medical Terminology IV, V, VI**  
**Registration #0819-264, 265, 266**

This is a review of terms encountered in Medical Terminology I, II, and III supplemented by secondary vocabulary selected from the same topical areas. Etymology, definition, spelling, and pronunciation are reinforced, while correct utilization is stressed through composition. CLASS 3, CREDIT 3 (0819-264-F, 0819-265-W, 0819-266-S)  
PREREQUISITES: 0819-163 **for** 0819-264  
0819-264 **for** 0819-265  
0819-265 **for** 0819-266

**Co-op Work Experience**  
**Registration #0819-299**  
CREDIT 0 (Su)

NVCP (0821)

# Applied Photography

## Introduction to Cameras Registration #0821-150

This course will introduce students to the use of cameras and light meters. Emphasis will be placed on the proper operation of the camera and its controls as well as the control and manipulation of exposure. Students will take pictures of assigned subjects to demonstrate their ability  
LAB 3, CREDIT 2 (F, W, S)  
COREQUISITES: 0821-151 and 0821-152

## Introduction to Film Processing Registration #0821-151

The techniques for processing and process control of black and white roll film will be introduced and practiced in this course. Emphasis will be placed on consistency and high quality film processing through control of processing variables.

LAB 3, CREDIT 2 (F, W, S)  
COREQUISITES: 0821-150 and 0821-152

## Introduction to Photographic Printing Registration #0821-152

Students will learn how to use an enlarger to make black and white prints, to process the prints, and to evaluate them. Emphasis will be placed on the proper use of the equipment, print processing, and evaluation of prints for improved print quality

LAB 8, CREDIT 4 (F, W, S)  
COREQUISITES: 0821-150 and 0821-151

## Introduction to Copy Work Registration #0821-153

Students use and extend basic camera skills to meet the special needs of copy work. 35mm and 4 x 5 copy cameras are used with a variety of film types. Special lighting and exposure skills also are introduced.

LAB 4, CREDIT 2 (F, W, S)  
PREREQUISITE: C or better in 0821-150, 0821-151, and 0821-152

## Film Processing Registration #0821-154

This course extends the skills learned in Introduction to Film Processing. Various types and sizes of black and white films will be used and the use of deep tank processing will be introduced. Emphasis will be placed on control and repeatability.

LAB 4, CREDIT 2 (F, W, S)  
PREREQUISITE: C or better in 0821-150, 0821-151, and 0821-152

## Black and White Printing Registration #0821-155

This course builds on previously learned basic printing skills. A variety of negative sizes will be used to develop more advanced skills in controlling print contrast and exposure. The making of a quality photographic print will be emphasized.

LAB 4, CREDIT 2 (F, W, S)  
PREREQUISITE: C or better in 0821-150, 0821-151, and 0821-152

## Applied Photography: Certificate—NVCP (0821)

### Typical Course Sequence

Fall Term			Winter Term			Spring Term		
First Year								
		Cr. Hrs.			Cr. Hrs.			Cr. Hrs.
0821-150	Introduction to Cameras	2	0821-170	Machine Printing I	8	0821-171	Machine Printing II	8
0821-151	Introduction to Film Processing	2	0847-101	Job Search Process	1	0847-102	Life After College	1
0821-152	Introduction to Photo Printing	4		Communication	2		Communication	2
0847-100	Dimensions of College Life	2		English	4		English	4
0840-100	Introduction to Communication	2		Physical Education	0		Physical Education	0
	English	4						
	Physical Education	0						
		16			15			15

## Orientation to Photo/Media Careers Registration #0821-156

This course will allow students to learn more about careers in professional photo labs and media production. Field trips, class discussions, and hands-on experiences will be used. Students will be expected to choose their major area of study (Photographic Lab Technology or Media Production) upon completing this course.

CLASS 1, LAB 3, CREDIT 2 (F, W, S)  
PREREQUISITE: C or better in 0821-150, 0821-151, and 0821-152

## Basic Color Printing Registration #0821-160

Techniques for printing color negatives and evaluating color prints will be introduced. Students will learn principles of color theory and materials and relate these to making prints from color negatives.

LAB 8, CREDIT 4 (F, W, S)

## Mechanized Film Processing Registration #0821-161

In this course, students will learn how to operate automatic processing equipment for C-41 (color negative) and E-6 (color transparency) materials. Process monitoring and chemical mixing also will be included.

LAB 4, CREDIT 2 (F, W, S)

## Print Finishing Registration #0821-162

In this course, students will learn to retouch color prints to remove dust spots and other defects. The use of Flexichrome dyes to color large print areas will be introduced. Students also will practice the proper method for dry mounting black and white and color prints.

LAB 4, CREDIT 2 (F, W, S)  
COREQUISITE: Any color printing course



**Machine Printing I**  
**Registration #0821-170**

Students will develop basic skills at operating machine color printers and color paper processors. Operation of a roll paper printer and mini-printer also will be taught. Students will learn how to set up the printers; classify and print color negatives; and process, paper, cut, and inspect orders.

LAB 16, CREDIT 8 (F, W, S)

**Machine Printing II**  
**Registration #0821-171**

Additional skills using the roll paper printer and mini-printer will be taught. Students will learn skills in organizing work flow, sorting film, setting up and checking the printers, and paper process monitoring.

LAB 16, CREDIT 9 (F, W, S)

PREREQUISITE: 0821-170

**Media Photo I**  
**Registration #0821-180**

This course provides students in the Media Production major with an opportunity to increase their skills with cameras, exposure, and light meters. Students will be expected to use these skills to meet the needs of specific media-related assignments. Supporting skills in film processing and printing also will be practiced.

LAB 6, CREDIT 3 (F, W, S)

**Media Graphics I**  
**Registration #0821-181**

Students will learn to use drawing tools to produce charts, graphs, and work for slide or video reproduction. A variety of methods used to produce typography will be taught and practiced and the basics of graphic composition will be introduced. Emphasis will be placed on developing good work habits.

AB 6, CREDIT 3 (F, W, S)

**Audiovisual Equipment Applications**  
**Registration #0821-182**

Students will learn to set up, operate, and maintain the various types of recorders, projectors, and accessories commonly used in media and media production. Identification and application of various projection and audio formats also will be covered.

AB 4, CREDIT 2 (F, W, S)

**Introduction to Advanced Photographic Studies**  
**Registration #0821-190**

This course helps students learn about majors and career areas offered by the School of Photographic Arts and Sciences. Both creative and technical skills in still photography are developed. Students are provided with an opportunity to evaluate their interest and readiness for advanced program areas. Services offered by the Visual Communication Support Department are also reviewed.

CLASS 2, CREDIT 2 (W)

**Applied Photography: Diploma—NVCP (0821)**

**Typical Course Sequence**

**Fall Term**

**First Year**

		Cr. Hrs.
0821-150	Introduction to Cameras	2
0821-151	Introduction to Film Processing	2
0821-152	Introduction to Photo Printing	4
0847-100	Dimensions of College Life	2
0843-100	Introduction to Communication	2
	English	4
	Physical Education	0
		16

**Second Year**

0821-232	Custom Color Printing and Processing I	8
0847-101	Job Search Process	1
	Communication	2
	English	4
		15

**Winter Term**

		Cr. Hrs.
0821-153	Introduction to Copyfck	2
0821-154	Film Processing	2
0821-155	Black and White Printing	2
0821-156	Orientation to Photo/Media Careers	2
	Communication	2
	English	4
	Physical Education	0
		14

0821-233	Custom Color Printing and Processing II	8
	Communication	2
	English	4
		14

**Spring Term**

		Cr. Hrs.
0821-160	Basic Color Printing	4
0821-161	Mechanized Film Processing	2
0821-162	Print Finishing	2
	Communication	2
	English	4
	Physical Education	0
		14

**Preparation for the School of Photographic Arts and Sciences**  
**Registration #0821-191**

This course is for students who are applying to the School of Photographic Arts and Sciences. A variety of photographic assignments will be used to teach creative and technical skills in photography. Students will also practice academic skills such as test taking, time management, classroom participation, understanding instructions, and use of support services that are essential to effective learning in a mainstreamed educational setting. Enrollment is limited to students applying to the School of Photographic Arts and Sciences. CLASS 2, LAB 5, CREDIT 7 Studio 5 (S)

**Introduction to Materials and Processes of Photography**  
**Registration #0821-192**

This course is for students who are applying to the School of Photographic Arts and Sciences. Students are introduced to the technical and theoretical aspects of photography, including variability, tone reproduction, photo chemistry, color, and light. The skills taught will enable students to meet the challenges of a similar course in the School of Photographic Arts and Sciences. Enrollment is limited to students applying to the School of Photographic Arts and Sciences. CLASS 2, CREDIT 2 (S)

**Mechanized Processing**  
**Registration #0821-231**

Students learn the skills for the following job functions: roller transport processor operator, rack and tank processor operator, chemical mix person, control strip reader/plotter, and slide mounter operator. Skills are practiced in a production laboratory on campus.

CLASS 4, LAB 12, CREDIT 8 (F, W, S)

**Custom Color Printing and Processing I  
Registration #0821-232**

Students learn and practice skills for the following job functions: chemical mix person, roller transport processor operator, rack and tank processor operator, control strip reader/plotter, and custom color printer operator. The subtractive process of color printing is introduced. LAB 16, CREDIT 8 (F, W, S)

**Custom Color Printing and Processing II  
Registration #0821-233**

This course teaches the skills necessary for the following job functions: color negative analyzer operator, custom color print inspector (evaluator), custom copy camera operator, slide duplicator operator, and advanced custom color printer operator. Each student will have extensive practice in printing with a variety of films and papers. LAB 16, CREDIT 8 (F, W, S)  
PREREQUISITE: 0821-232

**Photographic Process Control I  
Registration #0821-234**

This is the first of three courses preparing the student to be a process control technician. Various scientific control methods are introduced. These include control charts, use of Z manuals, and replenishment procedures. Basic statistics are introduced. LAB 16, CREDIT 8 (F, W, S)

**Photographic Process Control II  
Registration #0821-235**

This second course in the process control sequence is devoted to the practice of principles and skills learned in the first course. Students use the first hour each day to collect monitoring information from ongoing processes. That information is assimilated and process recommendations are made to control the processes. The recommendations of each student are reviewed in class and the processes then are adjusted. LAB 16, CREDIT 8 (F, W, S)  
PREREQUISITE: 0821-234

**Quality Control Custom  
Color Appucation  
Registration #0821-236**

This course is devoted to process control applications needed in custom color labs. Most instruction uses an on-the-job experience format. Upon completion of this course, graduates qualify for the job functions of custom color printer technician, custom copy technician, and photographic process control technician. LAB 16, CREDIT 8 (F, W, S)

**Quality Control Mechanized Applications  
Registration #0821-237**

The process control skills are reviewed and extended to meet the requirements of the job function of the photographic process control technician. Any skills needed to qualify as a BC-24 and 5S printer technician are taught, including electronic exposure timing. Students will balance and monitor printers in a variety of applications.

CLASS 4, LAB 12, CREDIT 8 (F, W, S)

**Independent Study  
Registration #0821-399  
CREDIT Variable**

**Applied Photography: AA.S. Degree—NVCP (0821)**

**Typical Course Sequence**

Fall Term			Winter Term			Spring Term		
First Year								
		Cr. Hrs.			Cr. Hrs.			Cr. Hrs.
0821-150	Introduction to Cameras	2	0821-153	Introduction to Copy Work	2	0821-160	Basic Color Printing	4
0821-151	Introduction to Film Processing	2	0821-154	Film Processing	2	0821-161	Mechanized Film Processing	2
0821-152	Introduction to Photo Printing	4	0821-155	Black and White Printing	2	0821-162	Print Finishing	2
0847-100	Dimensions of College Life	2	0821-156	Orientation to Photo/Media Careers	2		Communication	2
0843-100	Introduction to Communication	2		English	4		English	4
	English	4		Physical Education	0		Physical Education	0
	Physical Education	0			14			14
		16						
Second Year								
0821-232	Custom Color Printing and Processing I	8	0821-233	Custom Color Printing and Processing II	8	0821-234	Photographic Process Control I	8
0847-101	Job Search Process	1		Liberal Arts	4		Liberal Arts	4
	Liberal Arts	4		Communication	2			12
	Communication	2		English	4			
	English	4			18			
		19						
Third Year								
0821-235	Photographic Process Control II	8	0821-233	Quality Control Applications	8			
	Liberal Arts	4	0847-102	Life After College	1			
		12		Liberal Arts	4			
					13			

# Printing Production Technology

## Photocomposition I Registration #0822-141

The practices and skills associated with the job functions of paste-up artist and photolettering machine operator are taught. This includes the use of layout grids, adhesives, and mechanical drawing tools. State-of-the-art headline and special-effect typographic equipment will be used and maintained. This course includes an introduction to direct input phototypesetters. CLASS 3, LAB 6, CREDIT 5 (F, W, S)

## Camera I Registration #0822-142

This course prepares students to be basic process line photographers. Skills included are chemical mixing, control of tray processing variables, operation of production cameras over their range of percentages, calibration for line copy, and diffusion transfer processing. CLASS 3, LAB 6, CREDIT 5 (F, W, S)

## Stripping and Litho Plates I Registration #0822-143

This course trains students to be single color strippers and platemakers in the offset printing industry. Skills learned include single color stripping to both pre-ruled and non-ruled masking sheets, stripping negatives and positives to a clear base, stripping halftones, stripping reverse and surprint type, manual step and repeat stripping, work and turn imposition, adding tints to a line negative, stripping four and eight-page signatures, using roomlight contact and duplicating film, making an instant imaging proof, calibrating and exposing various plates, manually processing subtracting plates, and making electrostatic and direct photo plates. CLASS 3, LAB 6, CREDIT 5 (F, W, S)

## Press I Registration #0822-144

The skills needed to be a duplicator operator are presented. Included are various duplicators that are widely used by in-plant and commercial printers. A systematic method of preparation, operation, and maintenance is emphasized. The operation of a small power stitcher, paper drill, paper cutter, and commercial type folder are taught as part of this course. CLASS 3, LAB 6, CREDIT 5 (F, W, S)

## Photocomposition II Registration #0822-251

This course presents the skills for the job functions of keyboard operator and phototypesetter operator. Special keyboard functions of various machines are presented and practiced for familiarity. Special fignction codes are used to drive different phototypesetters. Complete operation of several phototypesetters is required. CLASS 3, LAB 9, CREDIT 5 (F, W, S) PREREQUISITE: Touch typing skill

## Printing Production Technology: Certificate—NVCR (0822)

Students must complete a Level I course from each of the four areas of offset lithography and Integrated Printing Lab I.

### Topical Course Sequence

#### Fall Term

##### First Year

		Cr.Hrs.
0822-	Level I Printing	5
0817-120	Basic Mathematics	3
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		16

##### Second Year

0822-	Level I Printing	5
0847-101	Job Search Process	1
	General Education	2
	Communication	2
	English	4
		14

#### Winter Term

		Cr. Hrs.
0822-	Level I Printing	5
	General Education	2
	Communication	2
	English	4
	Physical Education	_0
		15

0822-	Level I Printing	5
0822-170	Integrated Printing Lab I	2
0847-102	Life After College	1
	Communication	2
	English	_4
		14

#### Spring Term

		Cr. Hrs.
0822-	Level I Printing	5
	Elective	2
	General Education	2
	Communication	2
	English	4
	Physical Education	_0
		15

## Printing Production Technology: Diploma—NVCR (0822)

Students must complete a Level I course from each of the four areas of offset lithography; Level II and Level III courses from two of the four areas; and Integrated Printing Lab I, II, and III. In addition, a work experience is required the second summer in the program.

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0822-	Level I Printing	5
0817-120	Basic Mathematics	3
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		16

##### Second Year

0822-	Level I Printing	5
	Elective	2
0847-101	Job Search Process	1
	Communication	2
	English	_4
		14

#### Winter Term

		Cr. Hrs.
0822-	Level I Printing	5
	Elective	2
	General Education	2
	Communication	2
	English	4
	Physical Education	_0
		15

0822-	Level I Printing	5
	Elective	2
0822-170	Integrated Printing Lab I	2
	General Education	2
	Communication	2
		13

#### Summer

Co-op Work Experience (10 Weeks)

##### Third Year

0822-	Level II Printing	5
0822-	Level III Printing	5
0822-270	Integrated Printing Lab III	2
	General Education	2
		14

0822-	Level II Printing	5
0822-	Level III Printing	5
0847-102	Life After College	1
	Communication	2
		13

#### Spring Term

		Cr. Hrs.
0822-	Level I Printing	5
	Elective	
	General Education	
	Communication	
	English	4
	Physical Education	
		15

0822-	Level II Printing	5
0822-	Level III Printing	5
0822-269	Integrated Printing Lab II	2
	Elective	2
		14

### Photocomposition III Registration #0822-252

This course offers skills in advanced keyboarding procedures for complex typographic formats. Included are skills in telecommunication with computers and word processors. The layout and paste-up skills learned in Photocomposition I are used in new, more complex applications.  
CLASS 3, LAB 9, CREDIT 5 (F, W, S)  
PREREQUISITE: Touch typing skill

### Camera II Registration #0822-255

This course continues with the following line photographer skills: fineline photography methods, use of PM filters, production of direct positives, and the use of panchromatic materials. The course also introduces contact printing and halftone photography.  
CLASS 3, LAB 9, CREDIT 5 (F, W, S)

### Camera III Registration #0822-256

This course presents the halftone photography concepts of camera calibration for tone reproduction and various processing methods for effective halftone production. Special effects and advanced contacting techniques are also taught. Students use state-of-the-art computer systems to control the tone reproduction quality acceptable to the industry  
CLASS 3, LAB 9, CREDIT 5 (F, W, S)

### Stripping and Litho Plates II Registration #0822-261

This course continues the training of students for the offset printing industry. Stripping and Litho Plates II trains students in the skills necessary for stripping, proofing, and platemaking flat color. Skills learned include multi-tone and multi-color work using tints, duotones, special effects, and spot color. Students use a precision pin register system throughout the stripping, proofing, and platemaking operations for all jobs. Additional skills include determining imposition, machine plate processing, and roomlight contact film exposure calibration.  
CLASS 3, LAB 9, CREDIT 5 (F, W, S)

### Stripping and Litho Plates III Registration #0822-262

This course trains students in process color stripping procedures and considerations. Included are various methods of aligning negatives, stripping multiple sets on the same form, matching color using process color tints, stripping reverse and surprint type in process color areas, dropping in a color picture into another, split-page/form stripping, making spread and choked negatives and positives, making composite negatives and positives, and monitoring and maintaining the plate processor.  
CLASS 3, LAB 9, CREDIT 5 (F, W, S)

## Printing Production Technology: AA.S. Degree—NVCR (0822)

Students must complete a Level I course from each of the four areas of offset lithography; Level II and Level III courses from two of the four areas; Integrated Printing Lab I, II, III, and IV; nine additional printing credit; and five Liberal Arts courses.

### Typical Course Sequence

Fall Term			Winter Term			Spring Term		
First tear								
		Cr. Hrs.			Cr. Hrs.			Cr. Hrs.
0822-	Level I Printing	5	0822-	Level I Printing	5	0822-	Level I Printing	5
0817-120	Basic Mathematics	3		Elective	2		Elective	2
0847-100	Dimensions of			General Education	2		General Education	2
	College Life	2		Communication	2		Communication	2
	Communication	2		English	4		English	4
	English	4		Physical Education	0		Physical Education	0
	Physical Education	0			15			15
		16						
Second tear								
0822-	Level I Printing	5	0822-	Level I Printing	5	0822-	Level U Printing	5
0847-101	Job Search Process	1		Elective	2	0822-	Level III Printing	5
	Elective	2		Liberal Arts	4	0822-170	Integrated Printing	
	Communication	2		Communication	2		Lab I	2
	English	4			13		Liberal Arts	4
		14						16

### Summer

Co-op Work Experience (10 W e e k s)

Third tear								
0822-	Level II Printing	5	0822-	Level III Printing	5	0822-271	Integrated Printing	
0822-269	Integrated Printing		0822-270	Integrated Printing			Lab IV	2
	Lab II	2		Lab III	2	0822-	Printing Elective	3
0822-	Printing Elective	3	0822-	Printing Elective	3	0847-102	Life After College	1
	Liberal Arts	4		Elective	2		Elective	2
	Communication	2		Liberal Arts	4		Liberal Arts	4
		16			16			12

### Press II Registration #0822-265

This course is an introduction to the small press. Systematic methods of small press preparation and operation are taught. Students learn how to read and use a micrometer. Adequate practice time is provided for students to reach a level of competence required for placement as beginning press operators.

CLASS 3, LAB 9, CREDIT 5 (F, W, S)

### Press III Registration #0822-266

This course emphasizes the use of close registration systems. Four-color process printing will be done, but not at normal production rates. Students are taught how to use a packing gauge, and instructed in the use of a densitometer for measuring ink densities. Opportunity is provided to gain skills to do routine troubleshooting.  
CLASS 3, LAB 9, CREDIT 5 (F, W, S)

### Integrated Printing Lab (IPL) I, II, III, IV, V Registration #0822-170, 0822-269, 0822-270, 0822-271, 0822-272

The integrated printing laboratory is a simulated work experience. Each student is expected to work from a job ticket. Job procedures, good skills, production rates, and work habits are emphasized. The scope of the job increases in each IPL course.

LAB 3, CREDIT 2 (F, W, S)

PREREQUISITES: 0822-170 **for** 0822-269  
0822-269 **for** 0822-270  
0822-270 **for** 0822-271  
0822-271 **for** 0822-272

Co-op Work Experience  
Registration #0822-299  
CREDIT 0 (Su)

Independent Study  
Registration #0822-399  
CREDIT Variable (F, W, S, Su)

# Optical Finishing Technology

## Introduction to Optical Finishing Technology I

### Registration #0827-105

Students learn the functions and names of various ophthalmic lens systems, vocabulary terms related to vision conditions, and the relationship between a vision condition and the lens system used to correct a vision problem. This course emphasizes a continuation of career sampling in Optical Finishing Technology  
CLASS 2, CREDIT 2 (F)

## Introduction to Optical Finishing Technology II

### Registration #0827-106

Students learn the titles, roles, and responsibilities of vision care personnel, including the M.D., O.D., dispensing optician, and optical finishing technician. This course also introduces students to laws governing the ophthalmic optical industry and personnel working in laboratories.  
CLASS 2, CREDIT 2 (W)

## Introduction to Optical Finishing Technology III

### Registration #0827-107

Students learn about federal laws and regulations governing the quality of finished lenses, techniques used to treat lenses for safety, and the procedures used to test for lens quality.  
CLASS 2, CREDIT 2 (S)

## Optical Finishing Technology Math I

### Registration #0827-111

The focus of this course is on the rules of transposition, including transposition of lens powers, monocular and binocular pupillary distances (P.D.s), and decentration of lenses determining the algebraic and content accuracy of the ophthalmic prescription.  
CLASS 4, CREDIT 3 (F)  
PREREQUISITES: 0817-122, 0817-123

## Optical Finishing Technology: Certificate—NTSF (0827)

### Typical Course Sequence

#### Fall Term

##### Pre-Technical Requirements

		Cr. Hrs.
0817-122	Algebra IA	3
0827-105	Introduction to OFT I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		13

##### First Year

0827-111	OFT Math I	3
0827-115	Prescription Analysis I	3
0827-161	Optical Finishing Terminology I	3
	Communication	2
	English	4
		15

#### Winter Term

		Cr. Hrs.
0817-123	Algebra IB	3
0827-106	Introduction to OFT II	2
	General Education	2
	Communication	2
	English	4
	Physical Education	0
		13

0827-112	OFT Math II	3
0827-116	Prescription Analysis II	3
0827-162	Optical Finishing Terminology II	3
0827-121	Optical Finishing Techniques I	5
	English	4
		18

#### Spring Term

		Cr. Hrs.
0827-107	Introduction to OFT III	2
0847-101	Job Search Process	1
0818-168	Physics I (optional)	4
	Communication	2
	English	4
	Physical Education	0
		13

0827-163	Optical Finishing Terminology III	3
0827-122	Optical Finishing Techniques II	5
0827-226	OFT Lab Simulation II	5
0847-102	Life After College	1
	Communication	2
		16

## Optical Finishing Technology Math II

### Registration #0827-112

Students learn to apply math functions related to the vertometer, heat treat process, and layout marker. Students restate (transpose) compound prescription powers in alternate dioptric form and receive practice in the use of the lens measure relative to lens curves.  
CLASS 4, CREDIT 3 (W)  
PREREQUISITE: 0827-111

## Prescription Analysis I

### Registration #0827-115

Students learn the techniques of analyzing effective powers on both single vision and multifocal ophthalmic prescriptions. Students determine the accuracy of the information given and decide if it is sufficient for processing through the optical laboratory.  
CLASS 4, CREDIT 3 (F)

## Prescription Analysis II

### Registration #0827-116

Students continue to analyze and write ophthalmic prescriptions in various forms with an emphasis on ortholite plastic, and cataract and trifocal prescriptions.  
CLASS 4, CREDIT 3 (W)  
PREREQUISITE: 0817-115

## Lens Design

### Registration #0827-117

Students learn about lens curves through the use of a series of three-dimensional models and a workbook. Students practice determining lens powers.  
CLASS 5, CREDIT 3 (S)

## Optical Finishing Techniques I

### Registration #0827-121

Students learn the techniques of using the vertometer, layout marker, heat treat unit, pattern maker, and hand beveling machines. Emphasis is placed on reshaping lenses as required.  
CLASS 6, CREDIT 5 (W)

## Optical Finishing Techniques II

### Registration #0827-122

Students learn and practice techniques of refining by hand the characteristics of edged lenses for precise fit into designated frames. The course includes pin beveling and the reshaping of lenses as required by the prescription.  
CLASS 6, CREDIT 5 (S)

**Optical Finishing Techniques III**  
**Registration #0827-123**

This course provides theory and practice in locating the optical center of an uncut lens and determining its position with respect to mechanical specifications of the prescription. Students use the vertometer and marking and layout procedures. Students process uncut ophthalmic lenses according to ANSI standards.  
CLASS 12, CREDIT 6 (S)  
PREREQUISITES: 0827-112, 0827-122

**Optical Finishing Terminology I, II, III**  
**Registration #0827-161,162,163**

The course emphasizes comprehension, spelling, and applications of terminology related to optical finishing technology, visual disorders, and trade names common to the optical industry.  
CLASS 5, CREDIT 3 (0827-161-F, 0827-162-W, 0827-163-S)  
PREREQUISITES: 0827-161 for 0827-162  
0827-162 for 0827-163

**Optical Finishing Techniques IV**  
**Registration #0827-224**

Concepts taught in Optical Finishing Techniques III are further developed with an emphasis on layout techniques including multifocal and specialized vocational lens systems. Students learn to identify metal frame types by generic names. Procedures for lens insertion, frame alignment, and proper use of assembly-alignment tools are emphasized.  
CLASS 9, CREDIT 5 (F)  
PREREQUISITE: 0827-123

**Optical Finishing Laboratory Simulation I**  
**Registration #0827-225**

This course provides practice in the total processing of actual eyeglass prescriptions from uncut stage through completion and final inspection. Students practice various methods of assembling lenses into plastic (Zylonite) frames, symmetrical alignment of the finished product, and repair and restoration techniques for damaged or distorted plastic frames. Students rotate positions to demonstrate competence in all phases of operation.  
CLASS 9, CREDIT 5 (W)

**Optical Finishing Technology: Diploma—NTSF (0827)**

**Typical Course Sequence**

**Fall Term**

**Pre-Technical Requirements**

		<b>Cr. Hrs.</b>
0817-122	Algebra IA	3
0827-105	Introduction to OPT I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		13

**First Year**

0827-111	OFT Math I	3
0827-115	Prescription Analysis I	3
0827-161	Optical Finishing Terminology I	3
0847-101	Job Search Process	1
	Communication	2
	English	4
		16

**Winter Term**

		<b>Cr.Hrs.</b>
0817-123	Algebra IB	3
0827-106	Introduction to OPT II	2
	General Education	2
	Communication	2
	English	4
	Physical Education	0
		13

0827-112	OFT Math II	3
0827-116	Prescription Analysis II	3
0827-121	Optical Finishing techniques I	5
0827-162	Optical Finishing Terminology II	3
	English	4
		18

**Spring Term**

		<b>Cr. Hrs.</b>
0818-165	Physics I	3
0827-107	Introduction to OPT III	2
	General Education	2
	Communication	2
	English	4
	Physical Education	0
		13

0827-117	Lens Design	3
0827-122	Optical Finishing Techniques II	5
0827-123	Optical Finishing Techniques III	6
0827-163	Optical Finishing Terminology III	3
		17

**Summer**

0827-299	Co-op fck Experience	
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**Second Year**

0827-224	Optical Finishing Techniques IV	5
0827-241	Management of Optical Stockroom	
	Procedures	4
	General Education	1
	Communication	2
		12

0827-225	Lab Simulation I	5
0827-251	Optical Finishing Technology Seminar	2
0818-166	Physics II	4
0847-102	Life After College	1
		12

0827-226	Lab Simulation II	5
0827-243	Optical Finishing Inspection/Correction	3
	English	4
		12

**Optical Finishing Laboratory Simulation II**  
**Registration #0827-226**

Students process typical prescriptions with a wide variety of detail, as encountered in actual laboratory practice. Students select materials to be used on each prescription and show competence in processing tasks, including assembly, repair, and restoration techniques indigenous to frames manufactured with both plastic and metal parts. Variation in prescriptions and terminology will be used. Students resolve problems presented by the instructors.

CLASS 9, CREDIT 5 (S)

**Optical Finishing**  
**Inspection and Correction**  
**Registration #0827-243**

Students evaluate finished prescription orders as final inspector, comparing all optical and mechanical details with written specifications. Emphasis is placed on accuracy, the quality of workmanship, and the inspector's ability to recommend and produce any changes he/she may find necessary. Study will include acceptable tolerance levels.

CLASS 5, CREDIT 3 (S)

**Professional Optic Seminar**  
**Registration #0827-251**

Professional persons from Rochester's ophthalmic community discuss their roles in the complex field of visual care. Valuable background information is gained on the many kinds of services, instrumentation techniques, and technologies that comprise the unending efforts to maintain and improve the quality of man's visual acuity.

CLASS 2, CREDIT 2 (W)

**Co-op Work Experience**  
**Registration #0827-299**

CREDIT 0(Su)

**Independent Study**  
**Registration #0827-399**

CREDIT Variable

**Optical Finishing Technology: AA.S. Degree—NTSF (0827)**

**Typical Course Sequence**

**Fall Term**

**Pre-Technical Requirements**

		<b>Cr.Hrs.</b>
0817-122	Algebra IA	3
0827-105	Introduction to OFT I	2
0847-100	Dimensions of College Life	2
	Communication	2
	English	4
	Physical Education	0
		13

**First tear**

0827-111	OFT Math I	3
0827-115	Prescription Analysis I	3
0827-161	Optical Finishing Terminology I	3
0847-101	Job Search Process	1
	Communication	2
	English	4
		16

**Second tear**

0827-224	Optical Finishing Techniques IV	5
0827-241	Management of Optical Stockroom	
	Procedures	4
	Liberal Arts	4
	Liberal Arts	4
		17

**Winter Term**

		<b>Cr. Hrs.</b>
0817-123	Algebra IB	3
0827-106	Introduction to OFT II	2
	General Education	2
	Communication	2
	English	4
	Physical Education	0
		13

0827-112	OFT Math II	3
0827-116	Prescription Analysis II	3
0827-121	Optical Finishing Techniques I	5
0827-162	Optical Finishing Terminology II	3
	English or Liberal Arts	4
		18

**Summer**

0827-299	Co-op Wrk Experience	
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**Spring Term**

		<b>Cr.Hrs.</b>
0818-165	Physics I	3
0827-107	Introduction to OFT III	2
	Communication	2
	English	4
	Physical Education	0
		11

0827-117	Lens Design	3
0827-122	Optical Finishing Techniques II	5
0827-123	Optical Finishing techniques III	6
0827-163	Optical Finishing Terminology III	J
		17

0827-226	Lab Simulation II	5
0827-243	Optical Finishing Inspection/Correction	3
	Liberal Arts	4
	Communication	2
		14

NVCM (0828)

# Media Production Technology

## Duplicating Techniques Registration #0828-201

Students work with equipment and materials used for duplication of various media. Skills include the use of mimeo, ditto, diazo, thermal, and other reproduction techniques.  
LAB 4, CREDIT 2 (F, W, S)

## Audiovisual Equipment Operation and Maintenance Registration #0828-202

Students learn operation and maintenance of common audiovisual equipment, including various kinds of projectors and audio equipment.  
LAB 4, CREDIT 4 (F, W, S)

## Basic Media Graphics Registration #0828-203

Students are introduced to the use of basic graphics tools and techniques, including lettering, inking, chart tapes, and shading films. Operational skill is gained through supervised practice. Techniques for effective application of the tools used in this work also are taught and practiced.  
LAB 8, CREDIT 4 (F, W, S)

## Basic Media Photography Registration #0828-204

Effective and systematic procedures and methods of media photography are presented. The course includes equipment and materials selection, subject arrangement, basic lighting, picture- and slide-story preparation, and the production of finished displays. Processing and development techniques are taught previous to this course.  
LAB 8, CREDIT 4 (F, W, S)

## Basic TV and Film Techniques Registration #0828-205

Students practice the use of Super 8 movie equipment and related editing equipment as well as the operation of basic TV recording and playback equipment. Basic production techniques are taught with the emphasis on continuity. Experience is gained through the use of the TV and film media to solve real problems.  
LAB 8, CREDIT 4 (F, W, S)

## Media Resources Registration #0828-206

Students learn how to evaluate and best utilize resources and media available in the work environment. All kinds of media are discussed in relation to selection and use of the best materials to solve a given problem.  
CLASS 3, CREDIT 2 (F, W, S)

## Media Production: Diploma—NVCM (0828)

### Typical Course Sequence

#### Fall Term

#### Winter Term

#### Spring Term

##### First Year

		Cr.	Hrs.			Cr.	Hrs.			Cr.	Hrs.
0821-150	Introduction to Cameras	2		0821-153	Introduction to Copy Work	2		0821-180	Media Photo I	3	
0821-151	Introduction to Film Processing	2		0821-154	Film Processing	2		0821-181	Media Graphics I	3	
0821-152	Introduction to Photo Printing	4		0821-155	Black and White Printing	2		0821-182	AV Equipment Applications	2	
0847-100	Dimensions of College Life	2		0821-156	Orientation to Photo/Media Careers	2			Communication	2	
0843-100	Introduction to Communication	2			Communication	2			English	4	
	English	4			English	4			Physical Education	0	
	Physical Education	0			Physical Education	0					
		16				14					

##### Second Year

0828-201	Duplicating techniques	2		0828-206	Media Resources	2	
0828-205	Basic TV and Film Techniques	4		0828-209	Media Workshop I	4	
0847-101	Job Search Process	1		0828-	Technical Elective*	4	
	Communication	2			Communication	2	
	English	4			English	4	
		13				16	

\*Technical Electives—NVCM (0828)-300 Series



**Media Workshop I****Registration #0828-209**

This is a practical work experience that normally is taken in the last quarter of the program, and requires integration of all basic skills learned in the various media. A series of realistic problems is presented for each individual to solve.

LAB 8, CREDIT 4 (F, W, S)

**Media Work Experience****Registration #0828-299**

This is an elective quarter devoted to real work experience under the supervision of qualified technicians and professionals. Students from geographic areas where placement is difficult are expected to elect this course as a means of meeting a potential employer in a circumstance that does not require permanent commitment. Also, students who have good technical skills but need more practical personal/social experience will be expected to elect this course.

CREDIT 0 (F, W, S)

**Audiovisual Selection, Storage, and Acquisition****Registration #0828-302**

Systems for selecting and storing AV hardware and software are considered. Practice is gained in the use of AV catalogs and the evaluation of software materials. Various maintenance and storage systems are reviewed for both software and hardware.

LAB 4, CREDIT 2 (F, W, S)

**Media Practice and Comparison****Registration #0828-306**

A comprehensive list of accepted media practices is introduced. Those practices then are reviewed in terms of how they apply to learning principles, media selection, and media design. Part of the course is devoted to defining the roles of the media production technician, the media professional, and other client professionals, and how they relate to one another.

LAB 8, CREDIT 4 (F, W, S)

**Media Applications Projects****Registration #0828-309**

This course is normally taken in the last quarter of the program. It requires practical solution of problems in media graphics, still photography, motion picture, and television. Each student must produce appropriate media materials when given projects in a typical working format.

LAB 8, CREDIT 4 (F, W, S)

**Media Graphics II****Registration #0828-313**

More advanced techniques of preparing graphics for use in media are presented. Practice is gained in the use of photolettering equipment, photostat machines, and other production techniques. Design principles that can be used to focus attention, convey concepts, or give a pleasant appearance are taught.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-203

**Media Photography II****Registration #0828-314**

More experience will be given using picture-taking techniques. A variety of lighting techniques, cameras, and special photo methods will be taught. Projects will be used to give experience working with real photo assignments.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-204

**TV Production II****Registration #0828-315**

Operation of video camera, switching, and special effects generators for multi-camera production is practiced. Experience is gained in working in the TV studio and the control room. Video editing techniques also are taught.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-205

**Photo Copying and Duplicating****Registration #0828-317**

Various methods of reproducing and duplicating two-dimensional materials are taught. Practice is gained making black and white copy photographs, color copy slides, slide duplicates, and captioned materials.

LAB 8, CREDIT 4 (F, W, S)

**Basic Color Printing****Registration #0828-318**

Basic color printing techniques are introduced and practiced. Experience is gained using both negative and reversal printing and print processing techniques.

LAB 8, CREDIT 4 (F, W, S)

**Media Graphics Workshop****Registration #0828-323**

This course gives individuals a chance to develop additional skills in graphic production. Opportunities are provided to try new graphics techniques and to experiment with variations on the applications of previous skills.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-313

**TV Workshop****Registration #0828-325**

This course offers the opportunity to practice and utilize previously learned TV techniques through the production of real TV materials. Students are encouraged to try new video techniques and equipment.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-315

**Film Production II**  
**Registration #0828-335**

Operation of 16 mm motion picture equipment is taught and practiced. The learner is confronted with several different production problems that require the use of these techniques in realistic film production situations. Editing techniques, lab services, time compression, and time expansion also are used in the projects.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-205

**Film Workshop**  
**Registration #0828-345**

This course allows individuals to gain further experience in the motion picture area. Various formats and equipment are used to produce real motion picture materials. Experimentation is encouraged.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-335

**Titling and Animation**  
**Registration #0828-355**

Basic animation and titling techniques are practiced. The use of graphics and copy techniques is integrated with the film medium to produce a variety of materials.

LAB 8, CREDIT 4 (F, W, S)

PREREQUISITE: 0828-317 or 0828-335

**Independent Study**  
**Registration #0828-399**

CREDIT Variable

**Media Production: AA.S. Degree—NVCM (0828)**

**Typical Course Sequence**

**Fall Term**

**First Year**

		<b>Cr. Hrs.</b>
0821-150	Introduction to Cameras	2
0821-151	Introduction to Film Processing	2
0821-152	Introduction to Photo Printing	4
0847-100	Dimensions of College Life	2
0843-100	Introduction to Communication	2
	English	4
	Physical Education	0
		16

**Second Year**

0828-201	Duplicating		0828-	Technical Elective*	4
	•techniques	2	0828-	Technical Elective*	4
0828-205	Basic TV and Film			Liberal Arts	4
	•techniques	4		Communication	2
0847-101	Job Search Process	1		English	J
	Communication	2			18
	English	4			
		13			

**Third Year**

0828-306	Media Practice and Comparison	4	0828-309	Media Applications Projects	4
0828-	Technical Elective*	4	0828-	Technical Elective*	4
	Liberal Arts	4	0847-102	Life After College	1
	Liberal Arts	4		Liberal Arts	4
		16			13

**Winter Term**

		<b>Cr.Hrs.</b>
0821-153	Introduction to Copy Work	2
0821-154	Film Processing	2
0821-155	Black and White Printing	2
0821-156	Orientation to Photo/Media Careers	2
	Communication	2
	English	4
	Physical Education	_0
		14

**Spring Term**

		<b>Cr. Hrs.</b>
0821-180	Media Photo 1	3
0821-181	Media Graphics I	3
0821-182	AV Equipment	
	Applications	2
	Communication	2
	English	4
	Physical Education	0
		<b>14</b>

\*Technical Electives—NVCM (0828)-300 Series

NCPF (0841)

# Communication Instruction Department I

## Courses in Overall Communicative Competency

### Basic Interpersonal Communication Registration #0841-101

This course is designed to help students communicate with people who do not know sign language. It helps students understand their own communication skills and decide the most successful way to handle a variety of daily situations. Students practice writing, speech, speechreading, and non-verbal strategies to communicate ideas. CLASS 2, CREDIT 2 (F, W, S)

## Courses in Improvement of Speaking Skills

### CID I Speech Therapy I Registration #0841-120

This course provides instruction and practice in using speech correctly. Special tests are used to evaluate individual needs of each student. Instruction may include training in voice, pitch control, articulation (speech sounds), or loudness control. Words, phrases, sentences, and conversation are practiced. Students with speech intelligibility scores less than 3.6 and approval from the CID I chairperson may enroll in this course.

CLASS 2, CREDIT 2 (F, W, S)

### CID I Speech Therapy II Registration #0841-121

This course is a continuation of CID I Speech Therapy I. Instruction is provided for individual needs. Students must have the CID chairperson's approval to enroll in this course. Students also must have speech intelligibility scores less than 3.6.

CLASS 2, CREDIT 2 (F, W, S)

PREREQUISITE: 0841-120

### Speaking/Listening Complement for Ideas in English Registration #0841-135

This course combines English and speech. Students use speech to express ideas, and use speechreading and listening to understand others. Students practice the basic patterns of English structures. Self-Instruction Lab is required. Students must have speech intelligibility scores greater than 2.0 and speechreading scores greater than 49%.

CLASS 2, LAB 1, CREDIT 2 (F)

COREQUISITE: 0841-180

### Speechreading Complement for English 2: Modern Life Registration #0841-136

This course provides practice in speaking and speechreading the grammar structures from English 2: Modern Life. Self-Instruction Lab is required. This course is for students with speechreading scores greater than 39% and speech intelligibility scores greater than 3.5 or with permission from the instructor.

CLASS 2, LAB 1, CREDIT 2 (F)

COREQUISITE: 0841-190

### Speechreading Complement for English 2: American Living Registration #0841-137

This course provides practice in speaking and speechreading the grammar structures from English 2: American Living. Self-Instruction Lab is required. This course is for students with speechreading scores greater than 39% and speech intelligibility scores greater than 3.5 or with permission from the instructor.

CLASS 2, LAB 1, CREDIT 2 (W)

COREQUISITE: 0841-193

## Courses in Improvement of Receptive Aural-Oral Skills

### Orientation to Hearing Aids Registration #0841-140

This course is for students who have not used a hearing aid in a long time. It helps them learn to use a hearing aid daily. Students learn all about hearing aids: how to take care of them, guarantees, earmolds, and repairs. Students have the opportunity to borrow different aids and to use a hearing aid every day. These activities help students decide the best, most comfortable hearing aid for their use. Students who have not used a hearing aid in the last three years may enroll in this course with the recommendation of an audiologist.

CLASS 2, CREDIT 2 (F, W, S)

### Auditory Training for the New Hearing Aid User Registration #0841-141

This auditory training course is designed to help students learn the meaning of sound. Students receive both group and individual practice listening for syllables, stress, duration, and intonation in words and sentences. All activities relate auditory perception to English concepts to help students' speechreading skills. Environmental sound training, with special emphasis on warning sounds, also is included. Students who are Profile I or II in hearing discrimination may enroll in this course. Other interested students should see the instructor. This course is open to students in all communication levels.

CLASS 2, LAB 1, CREDIT 2

PREREQUISITE: 0840-140

### Basic Auditory and Speech Training Registration #0841-142

This course is designed to improve listening and speaking skills for words. Students receive individual practice listening for differences in sounds. Students also practice correct speech production of everyday words. A variety of oral communication strategies are discussed and practiced. Students with speech discrimination less than 25% and speech intelligibility less than 3.6 may take this course. Students also need to use a hearing aid all or most of the time. Other students interested in this course should discuss it with the instructor. This course is recommended for students who want to sample speech therapy. This course is open to students in any communication instruction department.

CLASS 3, LAB 1, CREDIT 2 (F, W, S)

### CID I Intermediate Auditory Training I Registration #0841-144

In this course, students practice listening skills for sentences. Students receive individual practice listening to sentences. Students can choose different topics like sports, finding an apartment, and going to a restaurant. Practice material ranges from easy to difficult. Students with hearing discrimination scores from 25% to 70% may take this course. Students also need to use a hearing aid most of the time.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### CID I Basic Speechreading I Registration #0841-146

This course is designed to help students improve their visual skills to understand speakers. Students practice speechreading individual words and everyday sentences. In this course, students are taught about speechreading strategies to help them communicate with people who do not know sign language. Students also practice basic speech production skills. A course in Basic Interpersonal Communication is highly recommended after finishing this course. Students with speechreading scores (with or without sound) less than 35% can enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**CID I Intermediate Speechreading  
Registration #0841-148**

This course helps students learn to speechread common sentences. Practice involves speechreading sentences and conversations about job interviews, work, or school. Students practice strategies (methods) to help them communicate with people who do not know sign language. Also, students practice basic speech production in everyday situations. Students with speechreading scores (with or without sound) from 35% to 54% and speech intelligibility scores greater than 2.0 may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**Courses in Improvement of  
Manual/Simultaneous Skills**

**CID I Basic Simultaneous Communication  
Registration #0841-160**

This course introduces students to sign language. It can help them develop a basic sign language vocabulary for social, classroom, and work situations. Students learn the basic principles of sign language. They also practice using speech and signs together. Students with manual reception scores less than 41% may enroll in this course. This course is open to students in all communication levels.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**CID I Intermediate Simultaneous  
Communication  
Registration #0841-161**

This course is for students who already know some signs and who want to improve their sign language skills. Students work on sign fluency (speed and smoothness), fingerspelling, and the use of signs and speech together. More advanced vocabulary and the multiple meanings of some signs are taught. Students with manual reception scores from 41% to 78% may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W)

**English for Speech and Writing  
Registration #0841-177**

This course focuses on using spoken and written English to communicate ideas. It is for students who have intelligible speech and who have basic grammatical skills and want to practice using English in everyday speech and writing. The written and videotaped oral activities center around the interests and needs of the students enrolled. Students must have a speech intelligibility score of 4.0 or above to enroll.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**Courses in Supplemental  
English Language Skills**

**English in Context  
Registration #0841-179**

This course is open to students in any Communication instruction department. It involves reading a science fiction novel, *Z for Zachariah*, keeping lists of unfamiliar vocabulary, and completing associated exercises. The exercises focus on the description of time and place in English. Students strengthen their receptive abilities of such structures as the perfective aspect in English and complex temporal and locative pronouns. The course includes composition work on the novel. Students with reading comprehension scores of 7.0 or greater on the California Reading Test may enroll in this course.

CLASS 2, LAB 0, CREDIT 2 (F, W, S)

**Courses in Improvement of  
Reading and Writing Skills**

**Ideas in English—Speaking/Listening  
Registration #0841-180**

This is the first course in a two-course sequence. It focuses on basic English grammar for reading, writing, speaking, speechreading, and listening. Students study basic patterns of English sentences in reading and writing exercises. Reading and Writing labs are required. The course is for students with Michigan scores of 56 or less and speech intelligibility scores greater than 2.9.

CLASS 5, LAB 2, CREDIT 4 (F)

COREQUISITE: **0841-133 or 0841-135**

**Ideas in English—Simultaneous  
Communication Complement  
Registration #0841-181**

This is the first course in a two-course sequence. Students study basic patterns of English sentences. Students practice reading for understanding, writing correct answers to questions, and communicating ideas clearly in writing. Reading and Writing labs are required. This course is for students with Michigan scores of 56 or less.

CLASS 5, LAB 2, CREDIT 4 (F)

**English Sentence Structure/A  
Registration #0841-182**

In this course, students study basic patterns of English sentences that are needed for learning in college. Students practice reading for understanding, writing correct answers to questions, and communicating ideas clearly in writing. Reading and Writing labs are required. This course is for students with Michigan scores in the first quartile.

CLASS 5, LAB 2, CREDIT 4 (W)

**English Sentence Structure/B  
Registration #0841-183**

In this course, students work on English needed for their personal goals. Students study basic patterns of English sentences, reading for understanding, writing correct answers to questions, and communicating ideas clearly in writing. Reading and Writing labs are required. This course is for students with Michigan scores in the first quartile.

CLASS 5, LAB 2, CREDIT 4 (S)

**Modern Life—Speechreading Complement  
Registration #0841-190**

This course is designed to improve English skills for constructing sentences and using new vocabulary. This course provides instruction in two areas: the structure of sentences with two verbs and a connector, and analyzing vocabulary words independently. The course concentrates on improving writing and developing reading skills. Reading and Writing labs are required. Reading Lab work is related to the classroom grammar units. This course is for students with Michigan scores in the first quartile, speechreading scores greater than **39%**, and speech intelligibility scores greater than **3.5**.

CLASS 4, LAB 2, CREDIT 4 (F)

COREQUISITE: **0841-136**

**Modern Life—ASL Complement  
Registration #0841-191**

This course is designed to improve English skills for constructing sentences and using new vocabulary. The course provides instruction in two areas: the structure of sentences with two verbs and a connector, and analyzing vocabulary words independently. The course concentrates on improving writing and developing reading skills. Reading and Writing labs are required. The Reading Lab work is related to the classroom grammar units. The course is taught using both American Sign Language (ASL) and English. The course is for students with Michigan scores in the first quartile, and Hatfield test scores greater than **79**.

CLASS 4, LAB 2, CREDIT 4 (F)

**Modern Life****Registration #0841-192**

This course is designed to improve English skills for constructing sentences and using new vocabulary. The course provides instruction in two areas: the structure of sentences with two verbs and a connector, and analyzing vocabulary words independently. The course concentrates on improving writing and developing reading skills. Reading and Writing labs are required. The Reading Lab work is related to the classroom grammar units. This course is for students with Michigan scores in the first quartile.

CLASS 4, LAB 2, CREDIT 4 (F)

**American Living—Speechreading  
Complement**
**Registration #0841-193**

This course is designed to improve English skills for constructing sentences with new vocabulary. This course provides instruction in two different areas: joining two sentences with connectors like *before, after, when, then, because, and so*, and flexibility in vocabulary used in sentences. The course concentrates on improving writing and developing reading skills. Reading and Writing labs are required. The Reading Lab work is related to the classroom grammar units. The course is for students with Michigan scores in the first quartile, speechreading scores greater than 39%, and speech intelligibility scores greater than 3.5.

CLASS 4, LAB 2, CREDIT 4 (W)

**American Living—ASL Complement  
Registration #0841-194**

This course is designed to improve English skills for constructing sentences with new vocabulary. This course provides instruction in two areas: joining two sentences with connectors like *before, after, when, then, because, and so*, and flexibility in vocabulary use in writing. The course concentrates on improving writing and developing reading skills. Reading and Writing labs are required. The Reading Lab work is related to the classroom grammar units. The course is taught using both American Sign Language (ASL) and English. This course is for students with Michigan scores in the first quartile and Hatfield scores greater than 79.

CLASS 4, LAB 2, CREDIT 4 (W)

**American Living****Registration #0841-195**

This course is designed to improve English skills for constructing sentences with new vocabulary. This course provides instruction in two areas: joining two sentences with connectors like *before, after, when, then, because, and so*, and flexibility in vocabulary use in writing. The course concentrates on improving writing and developing reading skills. Reading and Writing labs are required. The Reading Lab work is related to the classroom grammar units. This course is for students with Michigan scores in the first quartile.

CLASS 4, LAB 2, CREDIT 4 (W)

**Our World****Registration #0841-196**

This course is designed to help students improve their skills in writing English and using English words. It provides instruction in two areas: the use of verbs in different kinds of sentences, and analyzing vocabulary words independently. There is heavy emphasis on reading. Writing skills also are practiced. Reading and Writing labs are required. Reading Lab work is related to the classroom grammar units. This course is for students with Michigan scores in the first quartile.

CLASS 4, LAB 2, CREDIT 4 (S)

**Reading, Writing, and Speaking  
Registration #0841-197**

The purpose of this course is to improve skills in reading, writing and speaking. Students practice basic English sentences to answer questions and communicate ideas clearly. Reading, Writing, and Self-Instruction labs are required. This course is for students with Michigan scores in the first quartile, writing scores 6.0 or less, and speech intelligibility scores 3.5 and greater.

CLASS 4, LAB 3, CREDIT 4 (F, W, S)

**CID I Independent Study****Registration #0841-399**

This course is for students who have special needs and cannot find another communication course to meet those needs. Students are required to write a contract describing what the course will cover. The contract must be signed by the student, instructor, and chairperson of CID I. Students interested in this course should talk to their communication advisor. The following sections are available: Overall Communicative Competency; Speaking Skills, Receptive Aural-Oral Skills, Manual/Simultaneous Skills, Supplemental English Language Skills, and English Reading and Writing Skills.

CREDIT 1-4 (F, W, S)

NCPF (0842)

# Communication Instruction Department II

## Courses in Overall Communicative Competency

### **CID II Basic Interpersonal Communication Registration #0842-101**

This course provides students with information about the communication process and some basic principles of interpersonal communication. Students learn how to begin, maintain (continue), and end conversations in social, school, and work situations. Students also evaluate their own communication skills and select the best ways to improve communication in different situations. This course is open to all CID II students.  
CLASS 2, CREDIT 2 (F, W, S)

### **CID II Organizing and Presenting Technical and General Reports Registration #0842-115**

This course helps students learn to organize information and present ideas to groups of people. Students learn how to search for information and use it to support their opinions. Activities include written assignments, reports, and short speeches. This course is open to all CID II students.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

## Courses in Improvement of Speaking Skills

### **CID II Speech Therapy I Registration #0842-120**

This course helps students improve their speech. Special tests help the teacher evaluate individual needs. Students meet with a speech instructor for two hours per week and practice in the lab for one hour a week. Instruction may include training in voice pitch control, articulation (speech sounds), and loudness control. Students practice word phrases, sentences, and conversations. Students with speech intelligibility scores less than 4.1 may enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Speech Therapy II Registration #0842-121**

This course is a continuation of CID II Speech Therapy I. Students work on their individual speech needs. Students must have speech intelligibility scores less than 4.1 to enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)  
PREREQUISITE: 0842-120

### **CID II Speech Therapy III Registration #0842-122**

This course is a continuation of CID II Speech Therapy II. Students continue to work on their individual speech needs. Students must have speech intelligibility scores less than 4.1 to enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)  
PREREQUISITE: 0842-121

### **CID II Pronunciation Registration #0842-125**

This course helps students develop independent ability to pronounce words correctly. Students practice how to use the dictionary to pronounce words. They also study pronunciation rules. These rules help students pronounce words correctly without a dictionary. Correct pronunciation also is useful for listening, speechreading, and learning vocabulary. Students with speech intelligibility scores greater than 3-5 may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Speech and Vocabulary Improvement I Registration #0842-128**

This course helps students improve their speaking and listening skills. Students also learn the meanings of new words. They listen to pre-recorded material on tapes and use a workbook with the same materials. Students record their speech and then listen to it. They practice listening to themselves and correcting their own speech errors. Students with speech intelligibility scores greater than 3.5 and hearing discrimination scores greater than 14% may enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Speech and Vocabulary Improvement II Registration #0842-129**

This course is a continuation of CID II Speech and Vocabulary Improvement I. Students will continue to work on speaking and listening skills. Students must receive a recommendation from the instructor of Speech and Vocabulary Improvement I to enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)  
PREREQUISITE: 0842-128

### **CID II Basic Strategies to Aid Functional Communication Registration #0842-138**

This course helps students improve their ability to communicate in real-life situations (for example, ordering dinner in a restaurant, renting an apartment, or making plane reservations). Students mainly practice ways to improve speechreading and speaking skills. Students also work on different strategies to aid speechreading and speaking (oral spelling, gesturing, and writing), and the language of the situation. Students with speech intelligibility scores from 2.0 to 3.0 and speechreading scores less than 33% may take this course.

CLASS 2, LAB 1, CREDIT 2 (F, W)

## Courses in Improvement of Receptive Aural-Oral Skills

### **Orientation to Hearing Aids Registration #0842-140**

This course is for students who have not used a hearing aid in a long time. It helps them learn to use a hearing aid daily. Students learn all about hearing aids: how to take care of them, guarantees, earmolds, and repairs. Students have the opportunity to borrow different aids and to use a hearing aid every day. These activities help students decide the best, most comfortable hearing aid for their use. Students who have not used a hearing aid in the last three years may enroll in this course with the recommendation of an audiologist.

CLASS 2, CREDIT 2 (F, W, S)

### **CID II Basic Auditory Training I Registration #0842-142**

This course helps students improve listening skills for important sounds and words. Students find out which sounds are difficult for them. Students also practice "looking" and "listening" strategies (methods). These should help students to see and hear the differences between certain sounds or words. Students work both individually and in groups. Students with hearing better than 100 dB, hearing discrimination scores less than 25%, and speechreading-with-sound scores less than 75% may enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Basic Auditory Training II Registration #0842-143**

This course is a continuation of CID II Basic Auditory Training I. Students continue to work on listening skills for important sounds and words. Students must receive a recommendation from the instructor of Basic Auditory Training I to take this course.

CLASS 2, LAB 1, CREDIT 2 (W, S)  
PREREQUISITE: 0842-142

### **CID II Intermediate Auditory Training I Registration #0842-144**

This course helps students improve their ability to understand sentences. Students practice listening to words and sentences. They choose units on different topics (for example, getting an apartment or eating in restaurants). Students work both individually and in groups. Students with hearing discrimination scores from 25% to 70% may enroll in this course. Students also must use a bearing aid all or most of the time.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Intermediate Auditory Training II Registration #0842-145**

This course is a continuation of CID II Intermediate Auditory Training I. Students continue to work on sentence comprehension. Students must receive a recommendation from the instructor of Intermediate Auditory Training I to take this course.

CLASS 2, LAB 1, CREDIT 2 (W, S)  
PREREQUISITE: 0842-144

### **CID II Basic Speechreading I Registration #0842-146**

This course is designed to help students improve their speechreading skills through drill and practice with words and everyday sentences. Practice materials include "survival" sentences associated with daily life experiences and RIT social expressions. Students also practice using strategies (methods) for communication with hearing people who do not know sign language. Associational clues to help the speechreader identify the speaker's message and meaning are discussed. Some examples include the communication situation, topic, facial expressions, natural gestures, and body language. Students who have speechreading scores (with or without sound) from 10% to 34% may enroll in this course. CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Basic Speechreading II Registration #0842-147**

This course is a continuation of CID II Basic Speechreading I. This course helps students to further develop their visual skills to understand speakers. Students must receive a recommendation from the instructor of Basic Speechreading I to take this course. CLASS 2, LAB 1, CREDIT 2 (S)  
PREREQUISITE: 0842-146

### **CID II Intermediate Speechreading I Registration #0842-148**

This course is designed to help improve students' speechreading skills. Students practice different speechreading strategies (methods). They practice sentences related to specific topics/situations associated with life experiences, on-the-job social/general communication, or campus activities. Students also practice speechreading short paragraphs. The class discusses ways to help the speechreader communicate better with hearing people in difficult situations. Students with speechreading scores (with or without sound) from 35 to 54% may enroll in this course. CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Intermediate Speechreading II Registration #0842-149**

This course is designed to help improve students' speechreading skills. Students practice sentences, paragraph length materials, dialogues, and short stories. The class discusses ways to communicate in difficult situations such as in large meetings and/or noisy environments. Students must receive a recommendation from the instructor of Intermediate Speechreading I, or have speechreading scores (with or without sound) greater than 54%, to take this course. CLASS 2, LAB 1, CREDIT 2 (W, S)

### **CID II Speechreading for the Technical Major Registration #0842-150**

The purpose of this course is to improve students' ability to speechread spoken language in their technical majors. Students practice speechreading key words and sentences related to technical communication in the classroom or professional situations. Practice materials include sentences related to on-the-job social/general communication and job interview questions. Students use videotaped self-instruction materials in the speechreading classroom and also have individual practice with the instructor. Students with speechreading scores greater than 54% may enroll in this course. All students entering the course must pass a vocabulary definitions test. Students with speechreading scores less than 54% must be interviewed by the teacher to obtain a waiver of the speechreading score requirement. CLASS 2, LAB 1, CREDIT 2 (W, S)

## **Courses in Improvement of Manual/Simultaneous Skills**

### **CID II Basic Simultaneous Communication Registration #0842-160**

This course introduces students to sign language. It can help them develop a basic sign language vocabulary for social, classroom, and work situations. Students learn the basic principles of sign language. They also practice using speech and signs together. Students with manual reception scores less than 41% may enroll in this course. This course is open to students in all communication levels.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Intermediate Simultaneous Communication Registration #0842-161**

This course is for students who already know some signs and who want to improve their sign language skills. Students work on sign fluency (speed and smoothness) and fingerspelling. They also practice using signs and speech together. This course includes more advanced vocabulary and signs with many meanings. Students with manual reception scores from 41% to 78% may enroll in this course. This course is open to students in all communication levels. CLASS 2, CREDIT 2 (F, W, S)

### **CID II Understanding English Through Sign Language Registration #0842-165**

In this course, students work to improve their knowledge of English by using sign language. Students learn English words for signs that they already know and use daily. Students practice changing from sign language to written English. Students also learn signs for technical and more difficult English words. English and American Sign Language grammar are compared and discussed. Students with manual reception scores greater than 77% may enroll in this course. CLASS 2, LAB 1, CREDIT 2 (F, W, S)

## **Courses in Supplemental English Language Skills**

### **CID II English Idioms and Signing Registration #0842-171**

In this course, students study common idioms that are spoken, written, and signed. Students use the *Dictionary of Idioms and Worksheets* to help them use idioms correctly. Emphasis is on signing English idioms correctly. Students with manual reception scores greater than 77% may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID II Advanced Vocabulary Registration #0842-174**

This course helps students understand and use advanced vocabulary. Students learn the meanings of common roots, prefixes, and suffixes. Work on general vocabulary and vocabulary related to specific majors is available. Speech, speechreading, and listening skills are reinforced. This course is open to all CID II students. CLASS 2, LAB 1, CREDIT 2 (W, S)

## **Courses in Improvement of Reading and Writing Skills**

### **English 3: Simultaneous Group Registration #0842-181**

This course uses vocabulary and structural forms that are common in social, academic, and professional situations. Students see films and read materials that explore communication and self-expression. Students discuss different forms of self-expression and at the same time practice reading, writing, signing, and speechreading skills. Vocabulary clues, reading skills, and descriptive phrases are important parts of this course. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile and with good American Sign Language (ASL) skills. Students must be in their first quarter in CID II. CLASS 4, LAB 2, CREDIT 4 (F, W, S)

### **English 3: Mass Communication Registration #0842-182**

This course uses language forms and information from the mass media. Selections from literature and current newspaper and magazine essays give students an idea of the power of language. Students learn sentence structure and paragraph organization in popular literature. Reading and Writing labs are required. This course is for students with Michigan scores in the second •quartile.

CLASS 4, LAB 2, CREDIT 4 (F, W)

PREREQUISITE: 0842-181, or 0842-186, or 0842-191

**English 3: Visual Arts**  
**Registration #0842-183**

This course uses vocabulary and structural forms that are common in social, academic, and professional situations. Slides and reading materials provide an opportunity to practice complex sentence forms. Students learn idioms and verb forms in connection with art history and photo-journalism. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile.  
CLASS 4, LAB 2, CREDIT 4 (S)  
PREREQUISITE: 0842-181, or 0842-186, or 0842-191

**English 3: Multi-Modal Group**  
**Registration #0842-186**

This course uses vocabulary and grammar that are common in social, academic, and professional situations. Course readings are novels and short stories. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile, speech intelligibility scores less than 3-5, speechreading scores less than 35%, and those who do not know American Sign Language (ASL) well. Students must be in their first quarter in CID II.  
CLASS 4, LAB 2, CREDIT 4 (F, W, S)

**English 3: The Business World**  
**Registration #0842-187**

This course uses vocabulary and grammar common in social, academic, and professional situations. Course readings deal with the business world, past and present. Two novels also are covered in the course. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile.  
CLASS 4, LAB 2, CREDIT 4 (F, W)  
PREREQUISITE: 0842-181, or 0842-186, or 0842-191

**English 3: Modes of Business Communication**  
**Registration #0842-188**

This course uses vocabulary and grammar common in social, academic, and professional situations. Course readings deal with communication technology and forms of business communication. For example: What are some of the machines used in modern business communication? Are there special ways to communicate person-to-person in business situations? Questions like these also form the basis for assignments in writing. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile.  
CLASS 4, LAB 2, CREDIT 4 (S)  
PREREQUISITE: 0842-181, or 0842-186, or 0842-191

**English 3: Speaking-Listening Group**  
**Registration #0842-191**

This course uses vocabulary, sentence structure, pronunciation, and speech reception that occur in science and engineering reading and writing. Students read a specially written textbook and lessons covering the lives of famous scientists of ancient times for maximum understanding; do guided writing; and practice speaking, speechreading, and listening. Students practice understanding general technical vocabulary for college and employment through the medium of the lives of 37 famous scientists of ancient times. Students also learn how to use their college library. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile, speech intelligibility scores greater than 3.4, and speechreading scores greater than 34%. Students must be in their first quarter in CID II.

CLASS 4, LAB 2, CREDIT 4 (F, W, S)

**English 3: Famous Scientists**  
**Registration #0842-192**

This course uses vocabulary and sentence structures from areas in science and technology. Students read carefully selected paragraphs for maximum understanding and do guided writing. The reading and writing practice is on the lives and the scientific and technical work of famous scientists who lived from ancient times to the Industrial Revolution. Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile.  
CLASS 4, LAB 2, CREDIT 4 (F, W)  
PREREQUISITE: 0842-181, or 0842-186, or 0842-191

**English 3: The Earth and Universe**  
**Registration #0842-193**

This course uses vocabulary and sentence structures that occur in natural science. Students read carefully selected paragraphs for maximum understanding and do guided writing. The reading and writing practice is on astronomy (study of the universe) and geology (study of the Earth). Reading and Writing labs are required. This course is for students with Michigan scores in the second quartile.  
CLASS 4, LAB 2, CREDIT 4 (S)  
PREREQUISITE: 0842-181, or 0842-186, or 0842-191

**CID II Independent Study**  
**Registration #0842-399**

This course is for students who have special needs and cannot find another communication course to meet those needs. Students are required to write a contract describing what the course will cover. The contract must be signed by the student, the instructor, and the chairperson of CID II. Students interested in this course should talk to their communication advisor. The following sections are available: Overall Communicative Competency, Speaking Skills, Receptive Aural-Oral Skills, Manual/Simultaneous Skills, Supplemental English Language Skills, and English Reading and Writing Skills.  
CREDIT 1-4 (F, W, S)



# Communication Instruction Department III

## Courses in Overall Communicative Competency

### Introduction to Communication Registration #0843-100

This course helps students understand their communication skills. Basic information about the communication process, English language, sign language, hearing, and speech is taught. Students learn about communication courses at NTID. Finally, students design a program of courses to improve their communication skills. This is a required course for all new NTID students.  
CLASS 2, CREDIT 2 (F, W, S)

### CID III Building Relationships through Communication (manual) Registration #0843-101

The objective of this course is to help students develop effective interpersonal communication skills and confidence that will better enable them to initiate, improve, and maintain productive and fulfilling relationships with hearing-impaired and hearing persons. The experiential design of the course incorporates opportunities for self-discovery, identification, practice, and integration of more effective interpersonal communication skills into family, social, consumer, and job situations. Class format includes structured experiences, role plays, discussions, self assessment, goal setting, and journal writing. Students with spontaneous speech intelligibility scores from 1.0 to 2.5 and manual reception scores greater than 74% may enroll in this course.  
CLASS 2, CREDIT 2 (F, W)

### CID III Building Relationships through Communication (simultaneous) Registration #0843-102

The objective of this course is to help students develop effective interpersonal communication skills and confidence that will better enable them to initiate, improve, and maintain productive and fulfilling relationships with hearing-impaired and hearing persons. The experiential design of the course incorporates opportunities for self-discovery, identification, practice, and integration of more effective interpersonal communication skills into family, social, consumer, and job situations. Class format includes structured experiences, role plays, discussions, self assessment, goal setting, and journal writing. Students with spontaneous speech intelligibility scores from 2.6 to 3.9 may enroll in this course. There is no manual reception score requirement.  
CLASS 2, CREDIT 2 (F)

### CID III Building Relationships through Communication (speech) Registration #0843-103

The objective of this course is to help students develop effective interpersonal communication skills and confidence that will better enable them to initiate, improve, and maintain productive and fulfilling relationships with hearing-impaired and hearing persons. The experiential design of the course incorporates opportunities for self-discovery, identification, practice, and integration of more effective interpersonal communication skills into family, social, consumer, and job situations. Class format includes structured experiences, role plays, discussions, self assessment, goal setting, and journal writing. Students with spontaneous speech intelligibility scores from 4.0 to 5.0 may enroll in this course. There is no manual reception score requirement.  
CLASS 2, CREDIT 2 (W, S)

### CID III Basic Communication for Group Presentation Registration #0843-115

This course provides basic instruction to help students present information to groups. Students practice searching for information, organizing ideas, and presenting to others. Activities include short speeches and written assignments. Students may use whatever communication modes they choose, but must take responsibility for audience comprehension.  
CLASS 2, CREDIT 2 (F, W, S)

### CID III Speech Therapy I Registration #0843-120

This course offers individual speech instruction to students. Students are expected to take an active role in determining course goals. Instruction may include training in voice, pitch control, articulation, or spoken language. Students practice conversations with the instructor and other hearing people. Out-of-class speech activities are required. Students must have spontaneous speech intelligibility scores less than 4.1 and must have completed a speech priority interview in order to enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### CID III Speech Therapy II Registration #0843-121

This course is a continuation of CID III Speech Therapy I. Students work individually on their speech needs. Students must have a recommendation from a CID III speech pathologist to enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)  
PREREQUISITE: 0843-120

### CID III Speech Therapy III Registration #0843-122

This course is a continuation of CID III Speech Therapy II. Students continue their individual work on speech needs. Students must have a recommendation from a CID III speech pathologist to enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)  
PREREQUISITE: 0843-121

### CID III Pronunciation Registration #0843-125

This course helps students develop the skills to independently pronounce words correctly. Students are shown how to use Merriam-Webster pronunciation symbols (diacritical markings, stress indicators, etc.). Students also may study pronunciation rules. This is a small group course. Students with spontaneous speech intelligibility scores greater than 2.9 may enroll in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### CID III Speech and Vocabulary Improvement Registration #0843-128

This course allows students to improve their speaking and listening skills and learn the meanings of new words. Students listen to vocabulary material on audio cassettes. They have the same material in a workbook. Students make speech recordings and listen to their own speech. They also practice correcting their speech errors. This is a small group course, but the instructor often works individually with students in class. Students with spontaneous speech intelligibility scores greater than 3.0 and hearing discrimination scores greater than 0% may enroll in this course. This course is designed for students who have completed Speech Therapy or who do not need Speech Therapy. Knowledge of Merriam Webster pronunciation symbols would be beneficial to students enrolling in this course.  
CLASS 2, LAB 1, CREDIT 2 (F, S)

### CID III Speech Improvement Through Songs and Poems Registration #0843-130

Singing and poetry readings are introduced to improve speech. Exercises are used to help students breathe better for speech and control their voice better. Students watch and listen to captioned videotapes to learn songs. This is a small group course, but each student practices songs and poems at individual booths. The instructor often works individually with students to help them gain skill and confidence. Students with spontaneous speech intelligibility scores greater than 2.9 and hearing discrimination scores greater than 0% may enroll in this course  
CLASS 2, CREDIT 2(S)

### CID III Conversational Speech Registration #0843-131

This course provides instruction for conversational speech in daily situations with families, friends, teachers, employers, co-workers, and strangers. Students study the characteristics of conversational speech. The instructor works with students as they evaluate their own conversational speech skills. Students then set up personal goals for speech improvement and also choose strategies to help reach those goals. Conversational activities in class and out of class are used to help students speak clearer, use appropriate English, organize and express ideas clearly, and satisfy the informational needs of the listener. This course also allows students to improve their speech reception skills in conversation. This course is recommended for students who have difficulty communicating their thoughts clearly through spoken English, especially in complex conversations. Students with speech intelligibility scores greater than 3.5, spontaneous speech intelligibility scores lower than read speech intelligibility scores, and speechreading scores (with or without sound) greater than 34% may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W)

**CID III Speech for Telephone Communication**  
**Registration #0843-134**

This course is designed to help students improve their ability to be understood on the telephone and provides practice in the use of both expressive and receptive telephone strategies. Students meet individually with the instructor to practice speech and make telephone calls.  
CLASS 1, CREDIT 1 (F, W, S)

**Courses in Improvement of Receptive Aural-Oral Skills**

**Orientation to Hearing Aids**  
**Registration #0843-140**

This course is for students who have not used a hearing aid in a long time. It helps them learn to use a hearing aid daily. Students learn all about hearing aids: how to take care of them, guarantees, earmolds, and repairs. Students have the opportunity to borrow different aids and to use a hearing aid every day. These activities help students decide the best, most comfortable hearing aid for their use. Students who have not used a hearing aid in the last three years may enroll in this course with the recommendation of an audiologist.

CLASS 2, CREDIT 2 (F, W, S)

**CID III Basic Auditory Training**  
**Registration #0843-142**

This course provides instruction to improve listening skills for important speech sounds and words. Students practice using various "looking" and "listening" clues, and are instructed in the use of various strategies (methods) that are designed to improve receptive and expressive communication skills. Particular emphasis is placed on developing communication skills for interacting with non-signing hearing people. Students are required to complete a series of faculty/staff interviews that provide practical experience in the application of classroom exercises. Relevant information regarding hearing impairment and its relationship to the understanding of speech is also discussed. This is a small group course, although students frequently work individually. Students are required to use their hearing aids in class. Students with hearing better than 90 dB, hearing discrimination scores less than 25%, and speechreading-with-sound scores less than 75% may enroll in this course. Students also must use a hearing aid all or most of the time.

CLASS 2, CREDIT 2, (F, W, S)

**CID III Intermediate Auditory Training**  
**Registration #0843-144**

This course provides training to help students listen to and understand sentences. At the beginning of the quarter; students take a listening test to find out how well they understand sentences. Students listen to different types of sentences and choose units dealing with various social and academic topics. Instruction is provided in the use of various strategies (methods) designed to improve receptive and expressive communication skills. Videotaped in-class mock interviews are conducted to allow students to receive direct and immediate feedback on their use of strategies. Particular emphasis is placed on developing communication skills for interacting with non-signing hearing people in job situations. Students are required to complete a series of interviews outside of class that provide practical experience in the application of classroom exercises. Relevant information regarding hearing impairment and speech as well as auditory assistive devices currently available also are discussed. This is a small group course, although students frequently work individually. Students are required to use their hearing aids in class. Students with hearing discrimination scores from 25% to 70% may enroll in this course. They also must use a hearing aid all or most of the time.

CLASS 2, CREDIT 2 (F, W, S)

**CID III Basic Speechreading**  
**Registration #0843-146**

This course is offered to help students use their visual skills to understand speakers. Students will practice several speechreading strategies (methods). Also, students will practice understanding facial expressions, eye glances, gestures, and body movements as people talk. Practice activities include individual words and everyday sentences. Students may be required to practice speechreading hearing people in an interview. To enroll, students must have speechreading scores (with or without sound) from 0% to 34%.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**CID III Intermediate Speechreading**  
**Registration #0843-148**

This course is designed to help students speech-read sentences and short paragraphs. Strategies to assist communication are reviewed and practiced in conversational interviews of hearing staff members. Vocabulary and situations reflect job interviewing and on-the-job social communication. Students with speechreading scores (with or without sound) from 35% to 54% may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**CID III Technical Speechreading and Speech**  
**Registration #0843-151**

This course helps students improve their speech and speechreading of technical vocabulary associated with their major. This is a small group class, with one discussion hour, one individual practice hour, and one homework lab hour weekly. Group discussions are provided on work communication, strategies, associational cues, and interviews. Individual practice includes speechreading key vocabulary, sentences and short paragraphs from technical majors. Students also practice pronouncing technical vocabulary with a speech instructor during individual practice hours. Students with speechreading scores above 35% may enroll in this course. Students must also complete at least three quarters in their major before taking this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**Telephone Communication**  
**Registration #0843-155**

This course is offered to help students improve their ability and confidence in using the telephone with strangers. Students are shown the best way to use their hearing aid with the phone, how to make long distance calls, how to get information, what to do if they have problems, how to make appointments over the phone, what to do in an emergency, etc. Students practice using special strategies to improve their talking and listening over the phone. They also practice with business phones, pay phones, and TTDs (TTYs). Students are required to make phone calls every week for practice. The instructor works with each student individually during four special appointments. Students with hearing discrimination scores greater than 24%, spontaneous speech intelligibility scores greater than 3.1, and written language scores greater than 7.4 may enroll in this course. Also, students must have a telephone in their room or apartment, use a hearing aid all or most of the time, and have completed at least two quarters at NTID. This course is open to students at all English levels.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

**Telecommunication Aids**  
**Registration #0843-156**

This course helps students learn about different kinds of TDD (TTY) equipment. They also learn about regular telephones. Students use a TDD to make long distance calls, emergency calls, and appointments. They will be shown what to do if they have a bad connection or get disconnected. Each student makes TDD calls to practice using different TDD equipment. They also are able to practice with the regular phone and a pay phone. Students are taught special codes for listening and speaking on the phone. Students with hearing discrimination scores less than 25% may enroll in this course. This course is open to students at all English levels.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

## Courses in Improvement of Manual/Simultaneous Skills

### CID III Basic Simultaneous Communication Registration #0843-160

This course introduces students to sign language. It can help them develop a basic sign language vocabulary for social, classroom, and work situations. Students learn the basic principles of sign language. They also practice using speech and signs together. Students with manual reception scores less than 23% may enroll in this course. CLASS 2, LAB 1, CREDIT 2 (F)

### CID III Intermediate Simultaneous Communication Registration #0843-161

This course is for students who already know some signs and who want to improve their sign language skills. Students work on sign fluency (speed and smoothness) and fingerspelling. They also practice using signs and speech together. This course includes more advanced vocabulary and signs with many meanings. Students with manual reception scores from 23% to 45% may enroll in this course. CLASS 2, LAB 1, CREDIT 2 (F, W)

## Courses in Supplemental English Language Skills

### CID III English Idioms Registration #0843-170

This course is offered to help students understand and use common English idioms. Students are encouraged to bring idioms they hear or see for discussion in class. Idioms are discussed and practiced in context. Activities include written assignments, student participation, and the use of the *Longman Dictionary of Contemporary English*. Students with manual reception scores greater than 77% may enroll in this course. CLASS 2, CREDIT 2 (F, W, S)

### CID III Vocabulary Skills Registration #0843-178

This course is offered to help students develop a self-reliant method of acquiring and learning to use new vocabulary. Its principle emphasis is upon teaching students to use the *Longman Dictionary of Contemporary English* in an advanced way. This course is recommended for students who want additional English instruction. CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### English 4; Social Issues Registration #0843-180

This is an introductory level 4 English course. It is offered to help students develop reading and writing skills. Social issues, like child abuse, urban alienation, and drug misuse, are discussed to develop students' understanding and awareness of the world around them. English exercises are related to these topics and students receive instruction in grammar, vocabulary, composition writing, and reading comprehension. Overheads, drawings, and special slide lessons are used in this course. Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile. CLASS 3, LAB 2, CREDIT 4 (F, W, S)

### English 4: Changing World Registration #0843-182

This course is offered to help students improve their reading and writing skills. During the first five weeks of the course, students will review phrases, clauses, kinds of sentences, and eight basic parts of speech. During the second five weeks, students will read a variety of articles whose theme is the conflict between idealism and realism in modern life. English exercises are taken from these articles and students will receive instruction in grammar; vocabulary, composition writing, and reading comprehension. Drawings and special slide lessons, including Dr. Martin Luther King's speech "I Have a Dream" also are included in this class. Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile. CLASS 3, LAB 2, CREDIT 4 (F)  
PREREQUISITE: 0843-180

### English 4: Medical Issues Registration #0843-183

This course is provided to help students improve their skills in reading and writing technical English. The emphasis of this course is to help students understand the language used in hospitals and medical services. Instruction includes vocabulary development, correct grammar; and report writing for use in health service jobs. This course should be of special interest to students in health services and social work. Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile. CLASS 3, LAB 2, CREDIT 4 (F)  
PREREQUISITE: 0843-180

### English 4: Beginning Scientific English Registration #0843-185

This course introduces students to a broad range of topics related to the technical aspects of our society. Emphasis is placed on developing reading skills, practicing timed readings, and learning skimming and scanning procedures. Instruction also includes vocabulary exercises, grammar drills, writing short compositions, and examining specific points of grammar. This course is most useful for engineering and science majors. Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile.

CLASS 3, LAB 2, CREDIT 4 (W)  
PREREQUISITE: 0843-180

### English 4: Visual Arts Registration #0843-186

This course is offered to help students improve their reading and writing skills. Students will read a variety of general interest articles related to photography, including articles about the famous pictures connected with the Kent State incident in 1970 and the Iwo Jima battle in 1945. English exercises are taken from these articles. Students will receive instruction in grammar, vocabulary, composition writing, and reading comprehension. Overheads and many slides are used in this class. A special unit features a captioned slide/music presentation of the song, "Ohio!" Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile.

CLASS 3, LAB 2, CREDIT 4 (W)  
PREREQUISITE: 0843-180

### English 4: Writing Scientific English Registration #0843-190

This course is provided to help students improve their reading and writing skills. Students discuss measurements, dimensions, and properties of objects used in experiments. General reading and grammar drills also are used. Homework includes writing short compositions and lab reports. This course is recommended for engineering and science majors. Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile. CLASS 3, LAB 2, CREDIT 4 (S)  
PREREQUISITE: 0843-180

### English 4: American Life Registration #0843-191

This course is offered to help students improve their reading and writing skills. Students read articles about topics related to American life and complete English exercises for each article. Students practice grammar, vocabulary, composition writing, and reading comprehension. Reading and Writing labs are required. This course is for students with Michigan scores in the third quartile.

CLASS 3, LAB 2, CREDIT 4 (S)  
PREREQUISITE: 0843-180

### CID III Independent Study Registration #0843-399

This course is for students who have special needs and cannot find another communication course to meet those needs. Students are required to write a contract describing what the course will cover. The contract must be signed by the student, the instructor, and the chairperson of CID III. Students interested in this course should talk to their communication advisor. CREDIT 1-4 (F, W, S)

NCPF (0844)

# Communication Instruction Department IV

## Courses in Overall Communicative Competency

### **CID IV Interpersonal Communication in Group Situations—Speech Registration #0844-112**

This course introduces principles and techniques necessary for successful communication in group discussions and other complex situations. This course teaches group dynamics and how to lead and participate in group discussions. Topics for group discussions include social and job-related situations. This course is recommended for students near the completion of their communication program. Students with spontaneous speech intelligibility scores greater than 3.5 and simultaneous reception scores greater than 53% may enroll.

CLASS 2, CREDIT 2 (F, W, S)

### **CID IV Interpersonal Communication in Group Situations—Manual/Simultaneous Registration #0844-113**

This course introduces principles and techniques necessary for successful communication in group discussion and other complex situations. This course teaches group dynamics and how to lead and participate in group discussions. Topics for group discussions include social and job-related situations. This course is recommended for students near the completion of their communication program. Students with spontaneous speech intelligibility scores less than 3.6 and simultaneous reception scores greater than 53% may enroll.

CLASS 2, CREDIT 2 (F, W, S)

### **CID IV Basic Communication for Group Presentation Registration #0844-115**

This course prepares students to give short presentations to groups of people. Students study how to search for information and how to present ideas to different audiences. Students observe other speakers and learn how to evaluate speeches. Students with simultaneous reception scores greater than 53% may enroll in this course.

CLASS 2, CREDIT 2 (W, S)

### **CID IV Advanced Communication for Group Presentation Registration #0844-117**

This course is designed to refine and increase presentation ability by giving students more experience in researching and organizing information for presentation to different audiences and for interview situations. Students review and practice basic organizational public speaking skills required for successful presentations and interviews before hearing groups. Presentations focus on topics learned in class related to hearing impairment and its effect on communication, psychosocial development, and habilitation. Students are able to serve as presenters representing NTID. The course is highly recommended for students enrolled in social work and those preparing for managerial positions. Students should have some experience in public speaking before taking this course. Students with simultaneous reception scores greater than 77% may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (S)

### **CID IV Seminar in Postlingual/ Adventitious Deafness Registration #0844-118**

This course is designed for those individuals who have an acquired hearing loss and wish to enhance their understanding of their deafness educationally, socially, and communicatively. Strategies will be discussed as well as information provided in a classroom setting. A discussion group will also be provided to discuss feelings, attitudes, issues, and other concerns related to the psychosocial implications of deafness. Students who are postlingually/adventitiously deaf and have a speech intelligibility score of 4.0 or greater may enroll in this course.

CLASS 2, DISCUSSION GROUP 1,  
CREDIT 2 (F, W, S)

PREREQUISITE: 0841-160 and interview with instructor

## Courses in Improvement of Speaking Skills

### **CID IV Speech Therapy I Registration #0844-120**

This course is designed to help improve speech. Special tests help the teacher evaluate individual needs. Students meet with a speech therapist for two hours a week. Instruction may include training in voice, pitch, articulation (speech sounds), or loudness control. Words, phrases, sentences, and conversations are practiced. Students with speech intelligibility scores less than 4.0 may enroll in this course.

CLASS 2, CREDIT 2 (F, W, S)

### **CID IV Speech Therapy II Registration #0844-121**

This course is a continuation of CID IV Speech Therapy I. Students work on their individual speech needs and must have a speech intelligibility score less than 4.0 to enroll in this course.

CLASS 2, CREDIT 2 (F, W, S)

PREREQUISITE: 0844-120

### **CID IV Speech Therapy III Registration #0844-122**

This course is a continuation of CID IV Speech Therapy II. Students work on their individual speech needs. To enroll in this course, students must have a read speech intelligibility score less than 4.0.

CLASS 2, CREDIT 2 (F, W, S)

PREREQUISITE: 0844-121

### **CID IV Pronunciation Registration #0844-125**

This course helps students develop independent ability to pronounce new words correctly. Students study how to use the dictionary and how to pronounce words. Rules also are introduced to help students correctly pronounce words without use of the dictionary. Correct pronunciation also is useful for listening, speechreading, and learning vocabulary. Students with speech intelligibility scores from 2.6 to 3.5 may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID IV Pronunciation—Speech Registration #0844-126**

This course is the same as Pronunciation, except it is for students with speech intelligibility scores greater than 3.5.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID IV Speech and Vocabulary Improvement I Registration #0844-128**

This course is designed to help improve speaking and listening skills. Students also study meanings of new words. Pre-recorded material on audiotape is used in this course. Students record their own speech and then listen for self-correction. Students with speech intelligibility scores greater than 3.5 and hearing profiles III or greater may enroll in this course. Students with speech intelligibility scores greater than 3.5 and hearing profiles lower than III may enroll with permission from the instructor.

CLASS 2, CREDIT 2 (F, W, S)

### **CID IV Speech and Vocabulary Improvement II Registration #0844-129**

This is a group course to help improve speech and self-monitoring skills. The instructor and student select or develop speech practice material to meet the needs of the student. Students with speech intelligibility scores greater than 3.5 and hearing profiles III or greater may enroll in this course.

CLASS 2, CREDIT 2 (F, W, S)

PREREQUISITE: 0844-128 or permission of the instructor

### **CID IV Exploring and Appreciating Contemporary Music and Poetry Registration #0844-130**

Singing and poetry reading are introduced to improve speech. Exercises are used to help students breathe better for speech and control their voices better. Students watch and listen to captioned videotapes to learn songs. This is a small group course, but each student practices songs and poems at individual booths. The instructor often works individually with students to help them gain skill and confidence. Students with speech intelligibility scores greater than 36 and hearing discrimination scores greater than 0% may enroll in this course.

CLASS 2, CREDIT 2 (F, W, S)

### **CID IV Conversational Speech I Registration #0844-131**

This course is designed to help students improve their speech, speechreading, and listening in daily conversation. The instructor helps students evaluate their conversational speech and write their own goals for improvement. Conversational activities in class and out of class are used to help students speak clearer, use appropriate English, organize and express ideas clearly, and satisfy the informational needs of the listener. This course is recommended for students who have difficulty communicating their thoughts clearly through spoken English, especially in complex conversations. Students who enroll in this course are expected to enroll in Conversational Speech II the following quarter. Students with speech intelligibility scores greater than 35, spontaneous speech intelligibility scores lower than read speech intelligibility scores, and hearing discrimination scores greater than 10% may enroll in this course.

CLASS 2, CREDIT 2 (F, W)

### **CID IV Conversational Speech II Registration #0844-132**

This course is a continuation of Conversational Speech I. In Conversational Speech II, students continue to work toward their personal speech goals. Activities in class, out of class, and in the Self-Instruction Lab provide several opportunities for students to improve their conversational speech skills. Activities include a variety of people in a variety of daily situations. During the course, students evaluate improvement in their daily conversations. At the end of the course, students describe how well they have met their conversational speech goals.

CLASS 2, LAB 1, CREDIT 2 (W, S)

PREREQUISITE: 0844-131

### **CID IV Speech for Telephone Communication Registration #0844-134**

This course is designed to help students improve their speech and use of telephone strategies so that people can understand them on the telephone. Students practice speech and telephone strategies with pre-recorded audiotapes. Students meet individually with the instructor to review these tapes, practice speech, and make telephone calls.

CLASS 1, LAB 1, CREDIT 1 (F, W, S)

PREREQUISITE: 0843-155 completed or in the same quarter

### **Courses in Improvement of Receptive Aural-Oral Skills**

#### **Orientation to Hearing Aids Registration #0844-140**

This course is for students who have not used a hearing aid in a long time. It helps them learn to use a hearing aid daily. Students learn all about hearing aids: how to take care of them, guarantees, earmolds, and repairs. Students have the opportunity to borrow different aids and to use a hearing aid every day. These activities help students decide the best, most comfortable hearing aid for their use. Students who have not used a hearing aid in the last three years may enroll in this course with the recommendation of an audiologist.

CLASS 2, CREDIT 2 (F, W, S)

#### **CID IV Basic Speechreading and Listening Registration #0844-146**

This course will help students use visual skills to understand speakers. They will learn several strategies (methods) and will practice with different lighting and noise. Students will learn how to understand facial expressions, eye glances, gestures, and body movements as people talk. Individual words and everyday sentences will be practiced. Students with speechreading scores from 10% to 34% may enroll in this course.

CLASS 2, LAB 1, CREDIT 2 (F, W)

#### **Receptive Social/Academic Communication Registration #0844-152**

The focus of this course is to improve one's ability to understand other people in social and academic settings using an experiential learning approach. Deaf faculty/staff will be invited to share their own communication strategies and to discuss the importance of attitude in communication effectiveness. Students will gain experience in various communication settings and will develop personal goals/strategies through discussions with peers. Practice materials will include vocabulary and sentences commonly found in social and academic environments. Primary emphasis will be on the use of communication strategies for spoken language, with secondary emphasis on written language.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

PREREQUISITE: Speechreading score of

35%-80%, with or without sound, on CID everyday test

#### **Receptive Technical Communication Registration #0844-153**

The focus of this course is to improve one's ability to understand other people in technical/on-the-job situations, using an experiential learning approach. Deaf faculty/staff will be invited to share their own communication strategies and to discuss the importance of attitude in communication effectiveness. Students will gain experience in various communication settings and will develop personal goals/strategies through discussions with peers. Practice materials will include vocabulary, sentences, and paragraphs from the student's major field. Primary emphasis will be on the use of communication strategies for spoken language, with secondary emphasis on written language.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

PREREQUISITE: Speechreading score of

35%-80% with or without sound, on CID everyday test. Completion of at least 3 quarters in major field of study

### **Courses in Improvement of Manual/Simultaneous Skills**

#### **CID IV Basic Simultaneous Communication Registration #0844-160**

This course introduces students to sign language. It can help them develop a basic sign language vocabulary for social, classroom, and work situations. Students learn the basic principles of sign language. They also practice using speech and signs together. Students with manual reception scores less than 41% may enroll in this course. This course is open to students in all communication levels.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

#### **CID IV Intermediate Simultaneous Communication Registration #0844-161**

This course is for students who already know some signs and who want to improve their sign language skills. Students work on sign fluency (speed and smoothness) and fingerspelling. They also practice using signs and speech together. This course includes more advanced vocabulary and signs with many meanings. Students with manual reception scores from 41% to 78% may enroll in this course. This course is open to students in all communication levels.

CLASS 2, CREDIT 2, (F, W, S)

#### **CID IV Introduction to American Sign Language Registration #0844-163**

This course is for students who are skilled in manual communication but who do not know American Sign Language (ASL). In this course, students will explore the verb system in ASL grammar. Students also will study expressions of time and space and the structure of narratives in ASL. Readings on deaf culture and heritage will be discussed in class. Students with manual reception scores greater than 75% and Hatfield scores lower than 60% may enroll.

CLASS 2, LAB 0, CREDIT 2 (F, W, S)

## **Courses in Supplemental English Language Skills**

### **CID IV English Idioms**

**Registration** #0844-170

This course is offered to help students understand common idioms that are used in English. Students use the *Dictionary of Idioms* and several worksheets. This course is recommended for students who have completed all English requirements and want more English instruction. Students with manual reception scores greater than 77% may enroll in this course.

CLASS 2, CREDIT 2 (F, W, S)

### **CID IV Advanced Vocabulary**

**Registration** #0844-174

This course is designed to help students develop and improve their ability to determine the meaning and pronunciation of new words. Instruction and practice is provided in recognizing and pronouncing common prefixes, suffixes, and word roots; determining word meaning from context; and achieving proper pronunciation of technical words within the student's special area of study. Students with speech intelligibility scores less than 3.5 or hearing discrimination scores of 0% may enroll in this class.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

### **CID IV Advanced Vocabulary—Speech**

**Registration** #0844-175

This course is the same as CID IV Advanced Vocabulary, but is designed for students with speech intelligibility scores greater than 3.4 and hearing discrimination scores greater than 0%.

CLASS 2, LAB 1, CREDIT 2 (F, W, S)

## **Courses in Improvement of Reading and Writing Skills**

### **English 5: Language Structure in Written English**

**Registration** #0844-180

This course is designed to provide students with practice using appropriate language structures for different types of written communication. This course has three parts: (1) content analysis of different types of discourse, (2) study of discourse texts, and (3) advanced study of connectives as they relate to paragraph and essay construction. There also is a review of grammar through verb features. This course is for students with Michigan scores in the fourth quartile.

CLASS 3, LAB 1, CREDIT 4 (F, W, S)

### **English 5: Expression of Ideas in Written English**

**Registration** #0844-181

This course is designed to help students better express ideas in written English. An equal emphasis is placed on understanding what others have written. This course consists of four parts: (1) reading a novel and other texts and writing several essays, (2) studying the use of connectives, (3) studying the basic construction of paragraphs, and (4) learning a system of analyzing texts called "Networking!" This course is for students with Michigan scores in the fourth quartile.

CLASS 3, LAB 1, CREDIT 4 (F, W, S)

PREREQUISITE: 0844-180

### **English 5: Clear Thinking in Written English**

**Registration** #0844-182

This course provides practice using inference skills in reading and producing persuasive text at the vocabulary level, the sentence level, and the discourse level. There are three areas covered in this course: (1) the study of how grammar provides inference clues, (2) practice in drawing appropriate inferences from written prose, and (3) a broad spectrum of background knowledge issues through study of a novel. This course is for students with Michigan scores in the fourth quartile.

CLASS 3, LAB 1, CREDIT 4 (F, W, S)

PREREQUISITE: 0844-181

### **Creative Writing**

**Registration** #0844-183

This course is for students who need or desire to improve their writing skills. Unlike more technical writing courses, Creative Writing focuses on writing from personal experience with creative techniques. Students write poetry, opinion essays, and short stories, and do other assignments focused on developing ideas.

CLASS 2, CREDIT 2 (F, W, S)

PREREQUISITE: Students must be enrolled in

CID III or CID IV and must have completed English requirements.

### **Professional Writing**

**Registration** #0844-184

This course examines various types of letters, memos, and reports that students will encounter in the workplace. There will be an emphasis on form, content, and special grammatical structures that are necessary for various kinds of professional writing.

CLASS 3, CREDIT 3 (W, S)

PREREQUISITE: Students must be enrolled in CID III or CID IV and must have completed English requirements.

### **CID IV Independent Study**

**Registration** #0844-399

This course is for students who have special needs and cannot find another communication course to meet those needs. Students are required to write a contract describing what the course will cover. The contract must be signed by the student, the instructor, and the chairperson of CID IV. Students interested in this course should talk to their communication advisor.

CREDIT 1-4 (F, W, S)

NGGE (0847)

# General Education

**Dimensions of College Life**

**Registration** #0847-100

This course is designed to assist new students in increasing their knowledge and skills in personal development, academic areas, and the campus community. Activities include class discussions, lectures, and student participation in and out of class events.

CLASS 3, CREDIT 2 (F, W)

**Job Search Process**

**Registration** #0847-101

This course is for students who are preparing for their first co-op experience or permanent job. The course will cover resume writing, employment letters, sources of employment information, job applications, and interviews. Students will become familiar with ways to find a job. Learning activities includes lectures and written assignments.

CLASS 2, CREDIT 1 (F, W)

**Life After College**

**Registration** #0847-102

This course is for students in their last year at NTID. It give students information that will help them after they graduate. Topics include budgeting, housing, birth control, and keeping a job. Learning activities include lectures, videotapes, and individual conferences with the instructor.

CLASS 2, CREDIT 1 (F, W, S)

**Learning Strategies**

**Registration** #0847-105

The purpose of this course is to help students evaluate their strengths and weaknesses and to provide appropriate training that will improve their learning efficiency and effectiveness. Students will improve their learning skills in areas such as reading, test taking, questioning, and general study habits. Activities include lectures, discussions, and individual conferences.

CLASS 2, CREDIT 2 (F, W, S)

**Personal Finance**

**Registration** #0847-106

This course introduces students to basic money management. Topics for indepth discussion are based on student interest and selected from Income Tax, Banking, Credit, Budgeting, Inflation, and Shopping Wisely to Save Money

CLASS 2, CREDIT 2 (F, W, S)

**Health Self-Care**

**Registration** #0847-107

This course teaches students to make responsible health care decisions. Students will learn the importance of health. Information about choosing and using health care products and services is presented. Activities include lectures, field trips, and discussions.

CLASS 2, CREDIT 2 (F, W, S)

**Drug and Alcohol Usage**

**Registration** #0847-108

This course is designed to give a general overview of various drugs that are commonly used among college-age populations. Upon completion of this course, students should be able to identify and describe the effects on the body from using each drug covered, both short and long term, classification, dependence, and tolerance. Students will study the social impacts, peer pressure, economy involving drugs, and their own values related to drugs.

CLASS 2, CREDIT 2 (F, W, S)

**Adjusting to Deafness**

**Registration** #0847-109

This course is designed to assist students who are postlingually deafened, individuals who prefer using an oral method of communication and have had little or no contact with other hearing impaired people, and prelingually deaf persons who have grown up in normally hearing environments. The course will cover topics about deafness, including social issues, how deafness affects individuals and their families, and ways an individual adjusts to deafness.

CLASS 2, CREDIT 2 (F, W, S)

**Personal Development**

**Registration** #0847-110

This course helps students learn about themselves. Students learn to understand their actions, needs, desires, and relationships with other people. Topics include personal goals, planning time, choosing friends, and choosing a career. Class activities include lectures, group activities, discussions, and individual conferences.

CLASS 2, CREDIT 2 (F, W, S)

**Basic Human Sexuality**

**Registration** #0847-111

This course gives students information about human sexuality. Students learn to understand their sexuality. Topics addressed include feelings and attitudes toward sexuality, values, and sensitivity to the feelings of others. Activities include lectures, discussions, and projects.

CLASS 3, CREDIT 2 (F, W, S)

**Love, Marriage, and the Family**

**Registration** #0847-112

This course will examine the potentials and problems of married life. Students will be introduced to such relevant topics as love, sexuality, singlehood, marital roles, conflict resolution, and parenting. This course will challenge students to recognize their rights and responsibilities in a relationship and will offer them opportunities to clarify their thinking with peers and faculty

CLASS 3, CREDIT 3 (F, W, S)

**Psychology and Your Life**

**Registration** #0847-113

This course presents a life stages model of human development that emphasizes the psychological aspects of development, including emotional, self-concept, and interpersonal relationship development. Students use this model to identify important life issues for themselves and others and also to understand better their own behavior, as well as that of children, teenagers, parents, and older people.

CLASS 3, CREDIT 3 (F, W, S)

**Introduction to Outdoor Living**

**Registration** #0847-125

This course helps students develop personal and social skills. Some of the topics taught are decision making, communication, group interaction, and environmental awareness. This course can prepare students for other outdoor programs. There are day outings, seasonal activities, a weekend trip, and lectures.

CLASS 2, CREDIT 2 (F, W, S)

**Leadership Development**

**Registration** #0847-126

This course assists students in developing managerial/leadership skills. A required project and class activities assist students in improving leadership skills. Course topics include one and two-way communication, group leadership and followership, styles of leadership, delegating responsibility, planning skills, helping behaviors, establishing goals, and problem-solving techniques.

CLASS 2, CREDIT 2 (F, W, S)

**Community Service I**

**Registration** #0847-127

This course gives students a community service and learning experience. Volunteer work teaches students about personal goals and helping. The experience can be used in career development. Activities include lectures, discussions, and individual conferences.

CLASS 2, CREDIT 2 (F, W, S)

**Community Service II**

**Registration** #0847-128

This course is a continuation of Community Service I. Each student investigates and reports on a community or social problem. Students also learn how personal goals and values affect a community. Activities include discussions, field trips, and individual conferences.

CLASS 2, CREDIT 2 (W, S)

PREREQUISITE: 0847-127

**The Bible as Literature: A Cultural and Historical Perspective**

**Registration** #0847-145

This course will provide a basic understanding of the contents of the Bible. It will present some of the major events and themes, and will focus on the cultural and historical circumstances in which the biblical literature grew. Students may take this course in line with any religious interests they may have. The course will not approach the literature from any particular belief or lack of belief.

CLASS 2, CREDIT 2 (F)

**Psychology of Religion**

**Registration** #0847-146

This course is designed to help students understand how religion may relate to their lives, and help them to develop a mature, reflective, and critical view of religion as an influence in life. Topics for study include religion as a type of human behavior; methods of studying religious experiences, the psychology of conversion, mysticism, and human development in religious understanding and practice.

CLASS 2, CREDIT 2 (S)

**Law and Society****Registration #0847-147**

This course is designed to assist students in understanding the basic rules and applications of practical law as it applies to personal rights and responsibilities. Topics covered are how laws affect a society, civil rights, legal rights, torts, marriage, family relations, and criminal law. Activities include lectures and field trips.

CLASS 2, CREDIT 2 (F, W, S)

**Deaf Heritage****Registration #0847-148**

This course will examine many topics related to deafness. Students will survey "the deaf experience" from ancient times to the present by tracing the social and cultural heritage of deaf persons, and by examining important events and developments. Deaf individuals who have made important and remarkable contributions and achievements will also be studied.

CLASS 3, CREDIT 3 (F, W, S)

**American Past****Registration #0847-149**

This course gives students an understanding of American history, beginning in 1607 and continuing through the 20th century. It introduces students to a general knowledge of the country's past (heritage) and helps to prepare them for the personal responsibilities of good citizenship in contemporary society.

CLASS 2, CREDIT 2 (F, W, S)

**Our Judeo-Christian Heritage****Registration #0847-150**

This course gives students an understanding of the historical and literary roots of Judaism and Christianity—two major religions of the world, and foundations of Western Culture. A study of these roots will start with a geographical and sociological view of the Ancient Near East 6,000 years ago, and continue with a study of factors that encouraged the later development of Jewish/Christian religious thought and understanding. Students will have an opportunity to become more familiar with their own heritage, so they can better form values, opinions, and answers to religious questions in their own lives.

CLASS 2, CREDIT 2 (F, W, S)

**SIGI Decision Making****Registration #0847-160**

This course helps students learn about themselves and about careers. Students use the career computer SIGI. Topics will be decision making, values clarification, and self-assessment. Activities include lectures, discussions, small group activities, and presentations.

CLASS 2, CREDIT 2 (F, W, S)

**Career Decision Making****Registration #0847-161**

This course is for students who are not sure about their educational and career goals. Students learn ways to plan their careers and lives. Work will be on an individual or small group basis. Activities include independent study, field trips, role playing, lectures, and discussions.

CLASS 2, CREDIT 2 (F, W, S)

**The World of Work****Registration #0847-162**

This course prepares students for a co-op experience or permanent employment. Students learn skills important to success at any job. Class activities include lectures, student presentations, and discussions.

CLASS 2, CREDIT 1 (S)

**Interpersonal Relationships on the Job****Registration #0847-163**

This course teaches students how important good work relationships are to careers. Topics include employer-employee relationships, co-worker relationships, and how work relationships affect job satisfaction. Activities include role playing, discussions, and presentations.

CLASS 2, CREDIT 2 (F, W, S)

**Introduction to Theatre****Registration #0847-175**

This course teaches students about theatre production. Students are encouraged to take part in theatrical experiences. The class studies acting, writing, directing, and designing (lights, scenery, costumes, make-up). Activities include lectures, demonstrations, and discussions.

CLASS 2, CREDIT 2

**Technical Theatre I****Registration #0847-176**

This course covers the methods and materials used in technical theatre. Topics include the responsibilities of different theatre personnel, scenery construction, and properties. Activities include lectures, demonstrations, discussions, and involvement in theatre productions.

CLASS 2, CREDIT 2

**Technical Theatre II****Registration #0847-177**

This is a course for students who want to learn more about technical theatre. Activities include independent projects, supervision of crews, and shopwork.

CLASS 2, CREDIT 2

PREREQUISITE: 0847-176

**Stage Lighting****Registration #0847-178**

This course introduces students to theatre lighting. Students learn how to use each piece of lighting equipment. Activities include hanging lights for plays, running the light board, and using color in lighting.

CLASS 2, CREDIT 2

PREREQUISITE: 0847-176

**Creative Translation into Sign Language****Registration #0847-179**

This course covers translation forms used by the Department of Performing Arts. Students learn to translate poems and plays into American Sign Language. They also learn to present their translated works in sign. Activities include lectures, discussions, drills, and group workouts.

CLASS 2, CREDIT 2



**Acting I****Registration #0847-180**

This course explores communication by using pantomime, sign mime, body language, facial expression, character study, and role playing. Students learn to perform in front of an audience with confidence and skill.

CLASS 2, CREDIT 2

**Acting II****Registration #0847-181**

This course helps students perfect acting skills. Activities include developing a resume, style acting, advanced character development, and preparation of audition scenes.

CLASS 2, CREDIT 2

PREREQUISITE: 0847-180 and permission of instructor

**Dance Performance I****Registration #0847-182**

This course teaches students the basic terminology and techniques of modern dance. Basic body structure and creative movement are studied by the class. Individuals and groups perform in the studio. Activities include lectures, demonstrations, exercises, and performances.

CLASS 2, CREDIT 2

**Dance Performance II****Registration #0847-183**

This is an intermediate level modern dance course. Topics include technique, group work, and performance standards. Activities include lectures, discussions, exercises, and performances.

CLASS 2, CREDIT 2

PREREQUISITE: 0847-182, dance experience, or permission of instructor

**Sign Mime****Registration #0847-184**

This course teaches students to translate plays, poems, and stories into sign mime. Topics include how to develop and use sign mime in theatre and how to express original ideas in sign mime. Activities include lectures, demonstrations, and a laboratory.

CLASS 2, CREDIT 2

**Sign Dance****Registration #0847-185**

This is a basic dance class, including warm-up, barre, center, and cross-the-floor movement. Sign language and modern dance become the base from which students make compositions. Students do not need to know sign language to take the course. Activities include lectures, demonstrations, and performances.

CLASS 2, CREDIT 2

**Special Topics in Dance****Registration #0847-186**

Students learn different styles of dance. Possible topics include Afro-Caribbean dance, ballet, jazz, and tap. This course may be taken more than once.

CLASS 2, CREDIT 2

**Music Introduction/Instruction Practicum****Registration #0847-187**

This course helps students to develop musical skills in one or more of the following areas: piano, guitar, electric bass, percussion, brass, woodwinds, strings, the organ, and voice. Students may begin with basic instruction and progress to more advanced levels. Lessons are offered on an individual or small group basis. This course may be taken more than once.

CLASS 2, CREDIT 2

**Theatre Practicum****Registration #0847-188**

This course is for students who are accepted for a role (performance or crew) in a faculty-directed theatre production. Acting students analyze a script, develop a character, rehearse, memorize, and perform. Crew students build a specific scene or costume element and serve as members of the running crew. This course may be taken more than once.

CLASS 3-9, CREDIT 1-3

**Independent Study****Registration #0847-399**

CLASS 3-9, CREDIT 1-3

**NDAR (0849)**

# Applied Art

**Basic Design I, II, III  
Registration #0849-111,112, 113**

This is an introduction to the concepts and elements of design as they relate to a vocation in applied art. Emphasis will be on exploration and analysis of all design principles such as point, line, shape, texture, space, and color as they apply to two- and three-dimensional applications. LAB 3, CREDIT 2 (0849-111-F, 0849-112-W, 0849-113-S)

PREREQUISITES: 0849-111 for 0849-112  
0849-112 for 0849-113

**Basic Drawing I, II, III  
Registration #0849-121,122, 123**

This is a fundamental course that introduces students to freehand and mechanical drawing concepts, methods, and techniques. Emphasis is placed on hand eye coordination, rendering techniques, and various drawing media. A variety of forms are used, including still life objects, architectural forms, landscape, and the human figure.

LAB 6, CREDIT 3 (0849-121-F, 0849-122-W, 0849-123-S)

PREREQUISITES: 0849-121 for 0849-122  
0849-122 for 0849-123

**Media Processes I, II, III  
Registration #0849-131,132, 133**

The basic tools, materials, and equipment used in the professional applied art studio are introduced to students. Emphasis is placed on identification, vocabulary, maintenance, and correct use of media, mechanical tools, photostat equipment, typesetting machines, and a variety of materials. LAB 6, CREDIT 3 (0849-131-F, 0849-132-W, 0849-133-S)

PREREQUISITES: 0849-131 for 0849-132  
0849-132 for 0849-133

**Career Seminar I, II, III  
Registration #0849-141,142,143**

This course provides experience in the development of a personal career plan in art. Students will explore personal interests, aptitudes, and art program opportunities through presentations, field trips, discussions, and research of art careers. This course emphasizes systematic decision making related to art careers and awareness of the aesthetic environment.

CLASS 2, CREDIT 1 (0849-141-F, 0849-142-W, 0849-143-S)

PREREQUISITES: 0849-141 for 0849-142  
0849-142 for 0849-143

**Air Brush/Retouching  
Registration #0849-204**

This course provides levels of proficiency from familiarization with the air brush as a tool to professional retouching and illustration. Emphasis is on care and maintenance, dyes, paints, masks, working surfaces, and a variety of working techniques. This course is an elective.

CLASS 3, CREDIT 2 (F, W, S)

PREREQUISITES: 0849-112, 0849-122, and 0849-132

**Applied Art: Certificate—NDAR (0849)****Typical Course Sequence****Fall Term****First Year**

		<b>Cr.Hrs.</b>
0849-121	Basic Drawing I	3
0849-111	Basic Design	2
0849-131	Media/Processes I	3
0849-141	Career Seminar I	1
0847-100	Dimensions of College Life*	2
0847-101	Job Search Process**	1
	Communication	2
	English	4
	Physical Education	0
		18

**Winter Term**

		Cr. Hrs.
0849-132	Media/Processes 11	3
0849-142	Career Seminar II	1
0849-399	Independent Study	
	in Applied Art	6
0849-	Applied Art Elective*	2
	Communication	2
	English	4
	Physical Education	0
		18

**Spring Term**

		Cr.	Hrs.
0849-133	Media/Processes III		3
0849-143	Career Seminar III		1
0849-	Applied Art Elective*		2
0849-399	Independent Study		
	in Applied Art		5
0847-102	Life After College**		1
	Communication		2
	English		4
			18

\* See page 58 for Applied Art Technical Electives.

\*\* May be waived by department; Career Seminar and Employment Seminar courses are appropriate substitutes.

**Layout Applications I, II, III  
Registration #0849-211, 212, 213**

This is a basic course applying design concepts, principles, and methods developed in the first year. The emphasis is on practices and procedures evident in a professional art studio, such as the use of grid systems, production of accurate comps, and indicating typographic specifications, as well as developing quality workmanship and meeting deadlines.

LAB 3, CREDIT 2 (0849-211-F, 0849-212-W, 0849-213-S)

PREREQUISITES: 0849-113, 123, 133 for 0849-211  
0849-211 for 0849-212  
0849-212 for 0849-213

**Freehand Lettering  
Registration #0849-214**

Students are introduced to the basic processes of freehand lettering. The emphasis is on identification, care, and the use of various lettering tools such as carpenter's pencil, speedball pen, and lettering brush. Use of basic methods of stroking, letterspacing, wordspacing, and rendering of both serif and sans serif letter forms are taught. This course is an elective.

CLASS 3, CREDIT 2 (F, W, S)

PREREQUISITE: 0849-131

**Mechanical Preparation I, II, III  
Registration #0849-221, 222, 223**

The fundamentals of mechanical construction are taught in this course. Emphasis is on vocabulary, techniques, and printing production methods. The course involves simulated on-the-job projects using a variety of production skills, including one-color mechanicals, multi-color mechanicals, imposition set up, form ruling, diecut drawing, and package mechanicals.

LAB 6, CREDIT 3 (0849-221-F, 0849-222-W, 0849-223-S)

PREREQUISITES: 0849-133 for 0849-221  
0849-221 for 0849-222  
0849-222 for 0849-223

**Finished Lettering  
Registration #0849-224**

This is an introduction to the processes, tools, equipment, and methods for producing finished lettering for reproduction. Included are exercises designed to develop skills in rendering scripts, sans serif, serif, and decorative letterforms. This course is an elective.

CLASS 3, CREDIT 2 (F, W, S)

PREREQUISITE: 0849-214

**Introduction to Typography I, II, III  
Registration #0849-231, 232, 233**

This is a study of the use of typography in applied art: the origins of typographic form, type classifications, production processes, measurement systems, and type specification methods. Students receive practice in design, copy marking, planning formats, copy fitting, and the use of various sources of type.

LAB 3, CREDIT 2 (0849-231-F, 0849-232-W, 0849-233-S)

PREREQUISITES: 0849-113 and 0849-133 for 0849-231  
0849-231 for 0849-232  
0849-232 for 0849-233

### Mechanical Perspective Registration #0849-234

Students learn the use of mechanical drawing methods for visualizing three-dimensional form in perspective. Course experiences include orthographic projection and one-point and two-point perspective, based on forms ranging from simple geometric solids to more complex forms containing angled planes and circles (ellipses). Emphasis is on understanding the ways in which a perceived object can be translated into a technically accurate drawing. This course is an elective.

CLASS 3, CREDIT 2 (F, W, S)

PREREQUISITE: 0849-121

### Art Survey I, II, III

#### Registration #0849-241, 242, 243

This is a survey of major historical developments in the visual arts as they relate to applied art. Students are introduced to research methods used in the field of art, as the basis for design concept development.

CLASS 2, CREDIT 2 (0849-241-F, 0849-242-W, 0849-243-S)

PREREQUISITES: 0849-143 for 0849-241  
0849-241 for 0849-242  
0849-242 for 0849-243

### Applied Arts Photography

#### Registration #0849-244

This is a basic course in the use of photographic processes as they relate to the applied artist. Emphasis is on understanding and using the camera, black and white film processing, contact printing, and enlarging. Students practice with darkroom procedures and methods for obtaining a basically well-crafted photographic image. This course is an elective.

CLASS 4, CREDIT 2 (F, W, S)

### Drawing Applications

#### Registration #0849-254

This is an advanced course refining the freehand and technical drawing concepts, methods, and techniques developed in Basic Drawing I, II, and III. Emphasis is on the individual's development of drawing skills, applied to a variety of personal directions, within applied art. This course is an elective.

CLASS 3, CREDIT 2 (F, W, S)

PREREQUISITE: 0849-123

## Applied Art: Diploma—NDAR (0849)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0849-111	Basic Design I	2
0849-121	Basic Drawing I	3
0849-131	Media/Processes I	3
0849-141	Career Seminar I	1
0847-100	Dimensions of College Life**	2
0847-101	Job Search Process**	1
	Communication	2
	English	4
	Physical Education	0
		18

##### Second Year

0849-211	Layout Applications I	2
0849-221	Mechanical Preparation I	3
0849-231	Introduction to *typography I	2
0849-241	Art Survey I	2
	Communication	2
	English	4
		15

##### Third Year

0849-311	Graphic Applications I	5
0849-321	Employment Seminar I	3
0849-	Applied Art Elective*	2
0849-	Applied Art Elective*	2
		12

#### Winter Term

		Cr. Hrs.
0849-112	Basic Design II	2
0849-122	Basic Drawing II	3
0849-132	Media/Processes II	3
0849-142	Career Seminar II	1
	Communication	2
	English	4
	Physical Education	0
		15

0849-212	Layout Applications II	2
0849-222	Mechanical Preparation II	3
0849-232	Introduction to Typography II	2
0849-242	Art Survey II	2
	English	4
		13

0849-312	Graphic Applications II	5
0849-322	Employment Seminar II	3
0849-	Applied Art Elective*	2
0849-	Applied Art Elective*	2
		12

#### Spring Term

		Cr. Hrs.
0849-113	Basic Design III	2
0849-123	Basic Drawing III	3
0849-133	Media/Processes III	3
0849-143	Career Seminar III	1
0849-	Applied Art Elective*	2
	Communication	2
		13

0849-213	Layout Applications III	2
0849-223	Mechanical Preparation III	3
0849-233	Introduction to Typography III	2
0849-243	Art Survey III	2
	Communication	2
	English	4
		15

0849-313	Graphic Applications III	5
0847-323	Employment Seminar III	3
0849-	Applied Art Elective*	2
0849-	Applied Art Elective*	2
0847-102	Life After College**	1
		13

\* See page 58 for Applied Art Technical Electives; 14 or more elective credits are required for the diploma.

\*\*May be waived by department; Career Seminar and Employment Seminar courses are appropriate substitutes.

### Three-Dimensional Applications Registration #0849-264

This course extends basic concepts, principles, and methods as they apply to the three-dimensional form. Emphasis is on material characteristics, tool/material processes, construction techniques, and basic model making. This course is an elective.

LAB 3, CREDIT 2 (F, W, S)

### Mechanical Drawing Methods Registration #0849-274

Students are introduced to mechanical processes for depicting three-dimensional forms on a flat surface. The course includes drawing methods, such as oblique and isometric, based on simple and complex forms. Also included are experiences in developing three-dimensional models based on a mechanical drawing. Emphasis is on understanding the relationship between the three-dimensional form and the two-dimensional image. This course is an elective.

CLASS 3, CREDIT 2 (F, W, S)

PREREQUISITE: 0849-234

### Graphic Applications I, II, III Registration #0849-311, 312, 313

This is an advanced course stressing layout and mechanical skills within the context of a professional studio environment. Emphasis is on studio procedures, development of professional skills, and work habits, as well as refinement of individual portfolios.

LAB 10, CREDIT 5 (0849-311-F, 0849-312-W, 0849-313-S)

PREREQUISITES: 0849-213, 0849-223, 0849-233, 0849-243 for 0849-311  
0849-311 for 0849-312  
0849-312 for 0849-313

### Employment Seminar I, II, III Registration #0849-321, 322, 323

Students are oriented to the total working/living environment of the professional applied art field. The course emphasizes processes for securing and maintaining employment, as well as other professional skills. Activities include portfolio and resume preparation, interviewing techniques, guest lectures, field trips, presentations, discussions, and personally directed research.

CLASS 6, CREDIT 3 (0849-321-F, 0849-322-W, 0849-323-S)

PREREQUISITES: 0849-213, 0849-223, 0849-233, 0849-243 for 0849-321  
0849-321 for 0849-322  
0849-322 for 0849-323

### Independent Study Registration #0849-399 CREDIT Variable

## Applied Art: AA.S. Degree—NDAR (0849)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr.	Hrs.
0849-111	Basic Design I	2	
0849-121	Basic Drawing I	3	
0849-131	Media/Processes I	3	
0849-141	Career Seminar I	1	
0847-100	Dimensions of College Life**	2	
0847-101	Job Search Process**	1	
	Communication	2	
	English	4	
	Physical Education	0	
		18	

##### Second Year

0849-211	Layout Applications I	2	
0849-221	Mechanical Preparation I	3	
0849-231	Introduction to Typography I	2	
0849-241	Art Survey I	2	
0849-	Applied Art Elective*	2	
	Communication	2	
	English	4	
		17	

##### Third Year

0849-311	Graphic Applications I	5	
0849-321	Employment Seminar I	3	
0849-	Applied Art Elective*	2	
	Liberal Arts	J	
		14	

#### Winter Term

		Cr.	Hrs.
0849-112	Basic Design n	2	
0849-122	Basic Drawing n	3	
0849-132	Media/Processes 11	3	
0849-142	Career Seminar 11	1	
0849-	Applied Art Elective*	2	
	Communication	2	
	English	4	
	Physical Education	0	
		17	

#### Spring Term

		Cr.	Hrs.
0849-113	Basic Design III	2	
0849-123	Basic Drawing III	3	
0849-133	Media/Processes III	3	
0849-143	Career Seminar III	1	
0849-	Applied Art Elective*	2	
	Communication	2	
	English	4	
		17	

\* See this page for Applied Art Technical Electives; 14 or more elective credits are required for the diploma.

\*\* May be waived by department; Career Seminar and Employment Seminar courses are appropriate substitutes.

### Applied Art Technical Electives

	Hrs.	Cr.	Prerequisite
<b>Air Brush/Retouching</b> NDAR-204 (0849-204)	3	2	Basic Design 112 Basic Drawing 122 Media/Processes 132
<b>Freehand Lettering</b> NDAR 214 (0849-214)	3	2	Media/Processes 131
<b>Finished Lettering</b> NDAR 224 (0849-224)	3	2	Freehand Lettering 214
<b>Mechanical Perspective</b> NDAR 234 (0849-234)	3	2	Basic Drawing 121
<b>Applied Art Photography</b> NDAR 244 (0849-244)	3	2	None
<b>Drawing Applications</b> NDAR 254 (0849-254)	3	2	Basic Drawing 123
<b>Three-Dimensional Applications</b> NDAR 264 (0849-264)	3	2	None
<b>Mechanical Drawing Methods</b> NDAR 274 (0849-274)	3	2	Mechanical Perspective 234

# Interpreting

## Principles of American Sign Language for Interpreters

### Registration #0850-203

Students will be able to generate and accurately produce American Sign Language (ASL) classifiers and idioms, recognize and accurately produce non-manual grammatical markers, use appropriate body/facial expressions, apply grammatical features of ASL, and manipulate sign utilization to vary meaning.

CLASS 2, LAB 2, CREDIT 3 (F, W, S, Su)

PREREQUISITE: Basic sign language skills

## American Sign Language Interpreting I

### Registration #0850-204

This course requires students to use skills and principles learned in Principles of American Sign Language. Students practice interpreting from English to American Sign Language. Practice includes interpreting both live talent and audio-tapes. The speed of the spoken message will be about 80 to 110 words per minute.

CLASS 3, LAB 2, CREDIT 3 (W, S)

PREREQUISITE: 0850-203 or equivalent skills

## American Sign Language Interpreting II

### Registration #0850-205

This course is built around a series of advanced vocabulary necessary for interpreting in educational environments and in the community. Materials are structured so that students progressively increase transmission skills from 80 to 120 words per minute. Students' skills in American Sign Language will be enhanced with ongoing critiques.

CLASS 3, LAB 2, CREDIT 3 (F, S)

PREREQUISITE: 0850-204 or equivalent skills

## Fingerspelling and Number Comprehension

### Registration #0850-210

Students improve their ability to comprehend fingerspelled words and manually signed numbers within messages signed at a conversational rate of speed. Instructional activities include games, drills, and voice interpreting.

LAB 6, CREDIT 3 (F, W)

PREREQUISITE: Basic sign language skills

## Voice Interpreting I

### Registration #0850-211

This course will increase students' ability to receive the spoken and signed messages of hearing-impaired people and will refine students' ability to use vocal modulation to prepare for the voice interpreting task. This is a self-paced lab course. Students learn by viewing videotapes and completing a series of exercises. The videotapes contain hearing-impaired people communicating orally, in signed English, or in American Sign Language.

CLASS 3, CREDIT 3 (W)

## Interpreting for the Hearing Impaired: AA.S. Degree—NITP (0850)

### Typical Course Sequence

#### Fall Term

##### First Year

		Cr. Hrs.
0850-203	Principles of American Sign Language	3
0850-210	Fingerspelling and Number Comprehension	3
0850-251	Aspects and Issues of Deafness	3
0850-261	Theory and Practice of Interpreting	3
0502-220	English Composition*	4
	Physical Education*	0
		16

#### Winter Term

		Cr. Hrs.
0850-204	American Sign Language Interpreting I	3
0850-211	Voice Interpreting I	3
0850-262	Theory and Practice of Interpreting II	3
0504-332	Literature*	4
0502-520	College Vocabulary Skills	4
	Physical Education*	0
		17

#### Spring Term

		Cr. Hrs.
0850-205	American Sign Language Interpreting II	3
0850-252	Aspects and Issues of Deafness II	3
0850-331	Expressive Transliterating I	3
0850-371	Professional Interpreter I	3
0850-391	Principles of Tutoring/Notetaking*	3
	Physical Education	0
		15

#### Summer Term (optional)

0850-281	Interpreting Practicum I	5
0850-283	Interpreting Practicum Seminar I	1
0850-392	Tutoring/Notetaking Practicum	3

##### Second Year

0850-212	Voice Interpreting II	3
0850-281	Interpreting Practicum I	5
0850-283	Interpreting Practicum Seminar I	1
0850-332	Expressive Transliterating II	3
0850-392	Hitoring/Notetaking Practicum*	3
0850-343	Expressive Oral Transliterating	J
		18

0850-213	Voice Interpreting III	3
0850-396	Support Service Professional	3
	Liberal Arts/Social Science Electives* (two)	8
	Contemporary Science*	4
		18

0850-372	Professional Interpreter II	3
0850-382	Interpreting Practicum II	5
0850-384	Interpreting Practicum Seminar II	1
	Liberal Arts/Science and Humanities Elective*	4
	Professional Elective	_3
		16

\*Courses can be taken in another quarter. 0850-399 (Independent Study) is available any quarter.

## Voice Interpreting II

### Registration #0850-212

This course develops students' ability to generate a spoken English equivalent while viewing/listening to a hearing-impaired person's signed/spoken message. This is a self-paced lab course.

CLASS 3, CREDIT 3 (F)

PREREQUISITE: 0850-211

## Voice Interpreting III

### Registration #0850-213

This course continues development of the voicing task. More complex videotaped samples of signed/spoken messages of hearing-impaired persons are delivered at a faster rate than those in Voice Interpreting I and II. This is a self-paced lab course.

CLASS 3, CREDIT 3 (W)

PREREQUISITE: 0850-212

## Aspects and Issues of Deafness I, II

### Registration #0850-251, 252

Students learn the communication and psycho-social/cultural aspects of deafness through panel and class discussions, readings, and field trips.

CLASS 3, CREDIT 3 (F, S)

PREREQUISITE: 0850-251 for 0850-252

## Theory and Practice of Interpreting I

### Registration #0850-261

This course addresses the current theory and practices of the profession of interpreting. Topic areas include: general communication principles and their application to the interpreting task; the history of the profession of interpreting; different types of interpreting and related terminology; general skills required in interpreting and current applications by professional interpreters; overview of the professional code of ethics and its rationale; population served by interpreters, e.g. hearing-impaired speechreaders, deaf-blind individuals, multiply handicapped individuals, etc.; resources available to students related to interpreting and mainstreaming; and current issues facing the professional, e.g. multiple roles and mainstreaming specialists.

CLASS 3, CREDIT 3 (F)

PREREQUISITE: None

**Theory and Practice of Interpreting II**  
**Registration #0850-262**

Students use a communication process model to acquire a theoretical base for the interpreting task. Topics addressed are the linguistic principles associated with sign language and the interpreting task, and skills in positioning and lighting. This course includes lectures and student participation in small and large group activities.  
CLASS 3, CREDIT 3 (F, W)  
PREREQUISITE: 0850-261

**The Professional Interpreter I**  
**Registration #0850-271**

Students develop a broad understanding of interpreting as a profession, national standards for certification, and the concepts contained in the RID Code of Ethics. Other areas of concentration are interpersonal skills, self-critique, professional development, and resume writing. Coursework includes panels, role plays, discussions, reading, and lectures.  
CLASS 3, CREDIT 3 (S)

**Interpreting Practicum I**  
**Registration #0850-281**

This field experience provides an opportunity to practice and integrate skills acquired in the classroom and laboratories. It includes instructional and non-instructional activities on the RIT campus and in the Rochester community, supervised by the interpreter manager on site and the instructor responsible for the course.  
CLASS 15, CREDIT 5 (F, W, S)  
PREREQUISITE: None

**Interpreting Seminar I**  
**Registration #0850-283**

Designed as part of the field experience, students share their experiences and concerns as practicing interpreters, panels of interpreters and consumers of interpreting services are used.  
CLASS 1, CREDIT 1 (F, W, S)  
PREREQUISITE: None

**Expressive Transliteration I, II**  
**Registration #0850-331, 332**

These two courses concentrate on expressive transliteration as it relates to conceptually accurate English. Students develop skills required to present a spoken message with it in a signed English mode. Emphasis is placed on conceptual accuracy, accuracy of fingerspelling, vocabulary development, facial expression and body movement, and self-critiquing skills.  
CLASS 2, LAB 2, CREDIT 3 (F, S)  
PREREQUISITE: 0850-205

**Deaf-Blind Interpreting**  
**Registration #0850-342**

Students are prepared to interpret for deaf-blind consumers. Topics concerning deaf blindness include causes and effects, aspects and issues of deaf-blindness, information and resources, interpreting modes, and methods of communication.  
CLASS 3, CREDIT 3 (W)  
PREREQUISITES: 0850-102, 212, 271, 331

**Expressive Oral**  
**Interpreting/Transliteration**  
**Registration #0850-343**

This course concentrates on the skill of expressive oral transliteration. Students develop the skill of receiving an auditory message and reproducing it in a highly visual modality by applying the principles of clear speech production and support techniques. Emphasis will be placed on speech production principles, natural gestures, body language, facial expression, and speech of transmission.

CLASS 3, CREDIT 3 (F, W)  
PREREQUISITE: 0850-252

**The Professional Interpreter II**  
**Registration #0850-372**

Students develop a broad understanding of interpreting as a profession, national standards for certification, and the concepts contained in the RID Code of Ethics. Other areas of concentration are interpersonal skills, self-critique, professional development, and resume writing. Coursework includes panels, role plays, discussions, readings, and lectures.  
CLASS 3, CREDIT 3 (S)  
PREREQUISITE: 0850-271

**Interpreting Practicum II**  
**Registration #0850-382**

This field experience provides an opportunity to practice and integrate skills acquired in the classroom and laboratories. It includes instructional and non-instructional activities on the RIT campus and in the Rochester community, supervised by the interpreter manager on site and the instructor responsible for the course.  
CLASS 15, CREDIT 5 (F, W, S)  
PREREQUISITE: 0850-281

**Interpreting Seminar II**  
**Registration #0850-384**

This course is designed as part of the field experience. Students share their experiences and concerns as practicing interpreters. Panels of interpreters and consumers of interpreting services are used.  
CLASS 1, CREDIT 1 (F, W, S)  
PREREQUISITE: 0850-283

**Principles of Tutoring/Notetaking**  
**Registration #0850-391**

This course prepares students to provide tutoring and notetaking support for hearing-impaired persons in mainstreamed educational settings. The methodology is appropriate for elementary, secondary, and postsecondary education levels.  
CLASS 3, CREDIT 3 (F, W, S)

**Tutoring/Notetaking Practicum**  
**Registration #0850-392**

Students provide tutoring and notetaking services to hearing-impaired students. A minimum of 10 hours per week is devoted to taking notes in class and tutoring outside of class. Practicum sites include the Rochester City School District, the Monroe County Board of Cooperative Educational Services (BOCES) program, colleges of RIT, and other Rochester-area universities and colleges. Supervision is provided.  
CLASS 10, CREDIT 3 (F, W, S)  
PREREQUISITE: 0850-391

**Mainstreaming: Educational Programs and Alternatives**  
**Registration #0850-395**

This course explores the goals and processes of education of hearing-impaired persons, and covers current demographic, legal, economic, and social trends affecting education of hearing-impaired persons. Students identify criteria and processes for the establishment of quality support services for hearing-impaired students.  
CLASS 3, CREDIT 3 (W)  
PREREQUISITE: 0850-251

**The Support Service Professional**  
**Registration #0850-396**

This course addresses the knowledge and skills necessary for functioning in a variety of educational and/or non-educational settings where the support service provider will have more than one major responsibility. Case studies and practical experience in the field will be used to enhance students' awareness of what it means to be a support service professional.  
CLASS 3, CREDIT 3  
PREREQUISITES: 0850-281, 283, 391,  
or permission of instructor

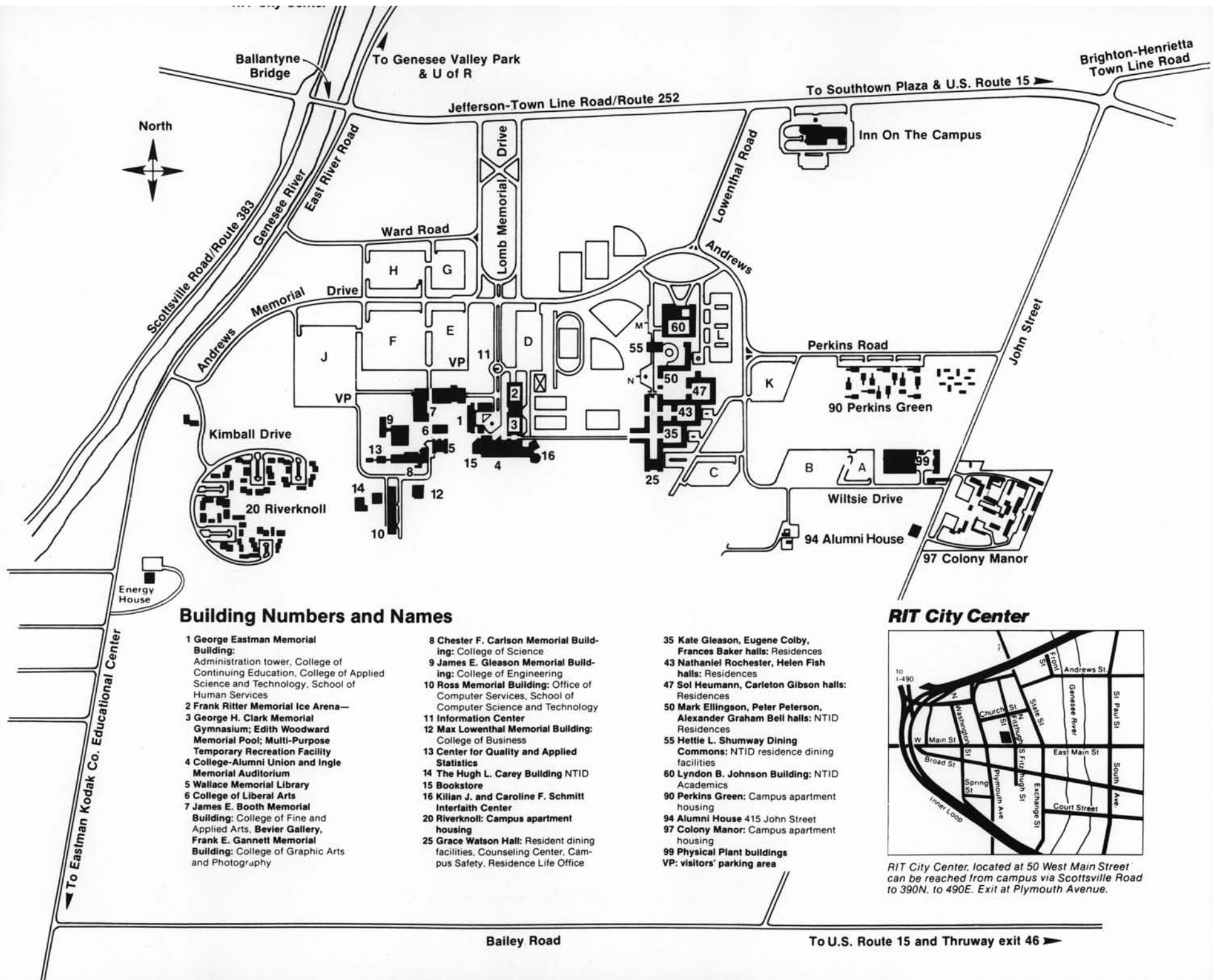
**Contemporary Studies in Support Services**  
**Registration #0850-397**

This course addresses the dynamic nature of support services and special education. As changes and growth happen in the field, this course will address "state of the art" issues. Some examples are court decisions, state or federal legislation, research findings, developments of new techniques or technology, in-service training programs for faculty and/or service providers, and management of support services. The course will be offered as new topics arise, or if a lecturer with specific expertise in support services is available to conduct the course.  
CLASS 1-3, CREDIT 1-3 (S)  
PREREQUISITES: 0850-281, 392,  
or permission of instructor

**Special Topics**  
**Registration #0850-398**  
CREDIT Variable (F, W, S)

**Independent Study**  
**Registration #0850-399**  
-CREDIT 1-3 (F, W, S, Su)  
PREREQUISITES: 0850-205, 252, 262, 331, 391

Other courses offered within NTID and RIT may be taken as electives if the student has interests outside the NITP program and time available to take them. For information on these courses and the process for registering for them, the student should see the NITP Academic Advisor.



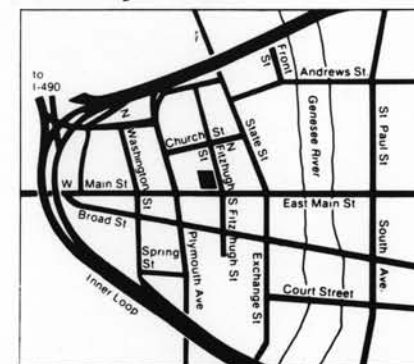
## Building Numbers and Names

- 1 George Eastman Memorial Building: Administration tower, College of Continuing Education, College of Applied Science and Technology, School of Human Services
- 2 Frank Ritter Memorial Ice Arena—
- 3 George H. Clark Memorial Gymnasium; Edith Woodward Memorial Pool; Multi-Purpose Temporary Recreation Facility
- 4 College-Alumni Union and Ingle Memorial Auditorium
- 5 Wallace Memorial Library
- 6 College of Liberal Arts
- 7 James E. Booth Memorial Building: College of Fine and Applied Arts, Bevier Gallery, Frank E. Gannett Memorial Building: College of Graphic Arts and Photography

- 8 Chester F. Carlson Memorial Building: College of Science
- 9 James E. Gleason Memorial Building: College of Engineering
- 10 Ross Memorial Building: Office of Computer Services, School of Computer Science and Technology
- 11 Information Center
- 12 Max Lowenthal Memorial Building: College of Business
- 13 Center for Quality and Applied Statistics
- 14 The Hugh L. Carey Building NTID
- 15 Bookstore
- 16 Kilian J. and Caroline F. Schmitt Interfaith Center
- 20 Riverknoll: Campus apartment housing
- 25 Grace Watson Hall: Resident dining facilities, Counseling Center, Campus Safety, Residence Life Office

- 35 Kate Gleason, Eugene Colby, Frances Baker halls: Residences
- 43 Nathaniel Rochester, Helen Fish halls: Residences
- 47 Sol Heumann, Carleton Gibson halls: Residences
- 50 Mark Ellingson, Peter Peterson, Alexander Graham Bell halls: NTID Residences
- 55 Hettie L. Shumway Dining Commons: NTID residence dining facilities
- 60 Lyndon B. Johnson Building: NTID Academics
- 90 Perkins Green: Campus apartment housing
- 94 Alumni House 415 John Street
- 97 Colony Manor: Campus apartment housing
- 99 Physical Plant buildings
- VP: visitors' parking area

## RIT City Center



RIT City Center, located at 50 West Main Street, can be reached from campus via Scottsville Road to 390N, to 490E. Exit at Plymouth Avenue.

**Rochester Institute of Technology**

National Technical Institute for the Deaf  
One Lomb Memorial Drive  
Post Office Box 9887  
Rochester, NY 14623