

REPORT ON SABBATICAL LEAVE April 1, 1974 - June 30, 1974

STUDY OF ON-LINE ADMISSIONS AND REGISTRATION PROCEDURES OF FOUR LEADING COMMUNITY COLLEGES IN THE MID-WEST AND EAST COAST OF THE U.S.A.

by

Eugene V. Olson Dean of Registration

to

BOARD OF TRUSTEES MT. SAN ANTONIO COLLEGE WALNUT, CALIFORNIA

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I. ACKNOWLEDGEMENT

I would like to thank the Board of Trustees, the people of the Mt. San Antonio College School District, the Administration, and the Faculty Association Leave Committee for granting me the opportunity to undertake this three month Sabbatical Leave after fifteen years of service to this District.

I anticipate better service to our student body and faculty from visiting four community colleges that are very unique in the areas of admissions and registration, and at the same time to fulfill an ambition of seeing the Caribbean and visiting portions of the east coast where the birth of our great nation took place.

I believe that my expectations have been fulfilled and from my findings I will be able to better serve the students and faculty in the area of registration at Mt. San Antonio College.

II. PREPARATION FOR SABBATICAL LEAVE

A certain amount of preparation must be made even for a sabbatical of three months. The first decision must be which three months to go, and who to pick as a suitable replacement and then to train that person to take the place of the Registrar. An application to the Board of Trustees and the Faculty Association Leave Committee with the statement of proposed plan to be followed and the anticipated end result must be submitted. At least nine months went into my planning for this three month leave and I believe the benefits I have derived from it were well worth the nine month preparation.

At first Mrs. Olson and I had planned to travel by automobile and our itinerary called for us to travel the southern route to Florida, up the east coast to Washington, D.C., then to New York and follow the coast up through the New England States, from there to the Mid-West and across the northern states to Washington and back down to California. Through these areas I planned to visit fifteen community colleges that were doing on-line registration and admissions. Then the gas shortage hit the United States, so a change in plans had to be made. First, the decision to fly instead of travel by automobile had to be made. Next, the decision as to what colleges to cut out of my visitation and those that should remain had to be made. Four community colleges were chosen: Miami Dade in Miami, Florida; Burlington County College in Pemberton, New Jersey; Monroe Community College in Rochester, New York; and William Rainey Harper College in Chicago, Illinois. These particular community colleges were picked because at the present time they demonstrate the most innovated and unique methods with the use of

their computers in programs of on-line registration and admissions procedures.

III. PURPOSE OF SABBATICAL LEAVE

The primary purpose of my sabbatical leave was to visit those community colleges that are acknowledged leaders in the field of online registration and admissions and to investigate their methods and procedures and to see if they could be adapted by Mt. San Antonio College with our configuration of the IBM 370/135 computer. My secondary goal was to visit those areas on the east coast that were the beginnings of this great nation. I have always had a great interest in the Colonial history and in the period of the great Civil War, so in the limited time available I did manage to see the following historic areas: Washington, D.C., Alexandria, Charlottesville, Monticello, Mt. Vernon, Jamestown, Fredericksburg, Richmond, Williamsburg, University of Virginia, William and Mary College (second oldest college in the U.S.) and Niagara Falls, Canada. One of the highlights of our trip was the fourteen-day cruise in the Caribbean where the following islands were visited: San Juan, Puerto Rico; St. Thomas, U.S. Virgin Islands; Pointe-A-Pitre, Guadeloupe; Bridgetown, Barbados; Caracas, Vanezuela; Curacao, Netherlands Antilles; and Port-Au-Prince, Haite.

IV. REPORT ON INVESTIGATION

Today so many new and exciting things are happening with the use of the computer in areas of higher education and especially in the field of registration and admissions. I have found that when something

"new" has been added to this field things change so rapidly that the "new" becomes almost obsolete before it even gets started. We have come a long way from the use of punch tally pins and registrars' and admissions' offices must be continually aware of all these changes if they expect to give their students the services that are now available. The few colleges that I visited have such men in these offices and I will endeavor to write here what they are doing that is new and innovative at their schools.

The first community college I visited was Burlington County College in Pemberton, New Jersey. The reason I picked this college to visit was because of its extensive use of terminals and its revolutionary approach to education at the community college level. Burlington was created in 1965 and has a student body of 3,400. The unusual thing about this college is that for each instructional sequence, objectives are specified in behavioral or performance terms. Teachers describe the patterns of behavior or learning outcomes expected from the student by the end of the course. Appropriate subject matter content, teachinglearning methods, instructional media and evaluation procedures are then programmed.

Four major modes of instruction are employed: large group, laboratory or class room, independent study, and seminar, with the inter-mix determined by specific objectives and the most effective means to achieve them. Students assume considerable responsibility for their own learning in the independent mode, while seminar discussions are the catalytic agents in the entire learning process. It is a systematically designed approach to instruction and student learning. Burlington is undergoing some changes in their admissions

and registration. These changes will include the increased use of the mails and the addition of more terminals for direct on-line registration, both on campus and by telephone. At the present time three types of registration are scheduled. First, early registration, which includes full-time and part-time students attending day classes. Several months prior to the beginning of the Fall and Spring semesters, advisement takes place. Students meet with their college counselors or faculty advisor. All full-time continuing students and continuing part-time day students must register during this early registration; otherwise, they will incur a \$10.00 late fee. Second type of registration is for part-time evening and extension students. Approximately 90% of this group pre-register by mail. Forms and brochures are available 30 days before the deadline for the return of the mail registration forms (see forms under ATTACHMENTS). Students must return the forms with full payment of tuition before the deadline date. The third type of registration is late registration. This is the period prior to the end of the fifth day of classes and includes any full-time or part-time student who was unable to register prior to the end of registration. All these students must pay a \$10.00 non-refundable late registration fee. Tuition and fees are mandatory at Burlington. They have a \$10.00 application fee. This fee is required only once and is not refundable. Applicants enrolling for the first time must also remit a \$25.00 non-refundable deposit if they are full time. The deposit will insure the applicant of his place at the college and is credited against the semester's tuition charge. The following tuition is collected at Burlington: full-time students, residents, \$175.00 per semester; residents of other New Jersey counties, \$350.00. Out-of-

state and foreign students, \$700.00. Part-time students, less than 12 semester hours, residents, pay \$15.00 per credit hour. All other counties in New Jersey pay \$30.00 per credit hour, and out-of-state and foreign students pay \$60.00 per credit hour. A refund policy also exists whereby on a drop on or before the fifth day of classes a 75% refund is given; between the sixth and tenth day 50% is given; between eleventh and fifteenth day of classes 25% is given; and on withdrawal after the fifteenth day of classes, no refund is given. The payment of fees and tuition was interesting to me since we are not burdened with this in California. Of the four colleges I visited, all had these fees and tuition, and although some varied as to cost, most were comparable to Burlington. All agreed that it was a headache during registration and everyone is still trying to find a better and more automotive way of collecting fees and tuition. It has been such a big problem that a special committee made up of registrars from community colleges on the east coast and mid-west is getting together this summer to find ways to eliminate these problems.

The second college I visited was Miami Dade. This is one of the largest community colleges in the United States, consisting of three campuses, with a total enrollment of over 40,000 students. I visited the North Campus, which is their main campus. For this campus' computer-configuration, please refer to ATTACHMENTS in this report, and also for their course request survey form and their table of organization. I spoke to the Registrar, Mr. Dan Derrico, and he informed me that they were in the process of just completing a new student registration scheduling system. This system has been in the making for over two years and programmers have been working eleven months in its preparation.

The system will consist of five phases:

Phase 1 - On-line Admit Phase (CRT) Phase 2 - On-line Student Personal Data Maintenance (CRT) Phase 3 - On-line Master Course File Phase (CRT) Phase 4 - On-line Registration and Add/Drop By Sequence Number (CRT) Phase 5 - On-line Scheduling System (Batch Scheduling of Students)

Phases 1 and 2 have been successfully implemented and Phase 3 is in the process of implementation at the present time. Phase 4 is scheduled to go up at the start of the Fall term, 1974 and Phase 5 is scheduled to go up for the Spring term of 1975. This new registration/add-drop system involves the following:

 Student sees advisor and completes "Registration Request Form".
In the Phase 4 approach, request is by sequence number. In the Phase 5 approach, it is by course abbreviation and number only.

2. Student uses "Registration Handbooks" in Phase 4 to select courses by sequence number. But, in Phase 5, student picks up a new type of "Registration Handbook" as a guide to completing "Registration Request Form". These handbooks are something like a catalog listing all of the courses that might be offered for a given term.

3. Student proceeds to "Registration Room".

4. Student advances to terminal with completed "Registration Request Form".

5. Student request is inputted into terminal and verified at this time, checks made for registration eligibility, financial obligations, etc.

6. Under Phase 4, the student is registered on the spot (under 3 minutes) and a schedule-fee receipt is printed and given to the student. Under Phase 5, this would merely be a request. The student is then mailed an "acknowledgement post card" verifying request.

During Phase 4 daily lists are produced showing "seat counts" and cancelled and closed sections, This system does not differ too much from Mt. San Antonio College system with the exception of the "on the spot" terminal registration. It has some advantages, such as; gaining better control of average class size, eliminates all IBM cards, recovers seats for dropped class immediately, builds a master schedule more responsive to student demand, reduces some registration hassle for students (cards, long lines due to compression of registration dates, class schedules with wide holes of open times). I also see some possible problems with their Phase 4 that may cause it to fail, such as: student loss of sequence choice (specific instructor, exact time). It is a very complex input form (sophisticated choices required). Choices are made for the student (alternate courses and times). When we did this at Mt. San Antonio College, it created many problems. However, if Miami Dade completes Phase 5 and eliminates the above problems in this phase, I think they will have a very unique system of on-line registration. I intend to follow up on their progress with Mr. Derrico this year.

The third community college on my list was Monroe Community College in Rochester, New York. It has a total student population of 8,943 and is under the supervision of the State University of New York. Its twenty-five million dollar campus is located on a 314 acre site in the town of Brighton, three and one-half miles from downtown Rochester. The majority of the students live at home and commute to the campus in private cars and by city bus. It has no dormitory facilities. Its curriculum offers transfer programs, career programs, continuing education (evening and Summer session) and planned certificate programs. Of the few colleges I visited, I believe that Monroe had one of the most updated

and unique systems of on-line registrations and one of the most sophisticated terminal programs I have ever seen, consisting of 24 complete and separate programs on-line, plus 103 more programs available in their library. I will not attempt to describe their total on-line administrative terminal system here, but will give a brief breakdown of the registration procedures in operation when I was there. First is their Master Schedule File. Much like Mt. San Antonio College, this file is created from departmental estimates. It includes a four digit number unique with each course and section, a six digit alphabetic course description, a three position section number, the title of the course, the type of course - lecture, lab, and whether it is day, evening, or off campus, the maximum number of seats available, number of seats taken, number of seats held, the meeting times. It includes the building and room, instructor's name and the number of credit hours, and whether a lab or conference and/or both is required for a lecture course.

The Director of Registration prepares input forms to the computing center. They, in turn, keypunch the forms and load the Master Schedule File. A new system of adding courses, I found, was quite unique. They create what is called a "shadow section". These are sections where maximum seats and seats held are equal, since it is easier to release the seats held than to create a new section during the registration process. In the event that the shadow section is not needed, it continues to be held and any listings of the Master Schedule File will show that course as being closed. The actual registration procedure starts with advisement and program planning. Following advisement, the student approaches the registration permit station, which verifies the fact that he is allowed

to register at that particular time, on that particular day, for that particular program, and he is not on suspension, nor has a financial obligation. The student enters the terminal room with the registration permit and his course register form signed by the faculty advisor. He is assigned to an operator (usually 8-10 operators on the line) who will enter his social security number and verify the fact that the correct number was entered by comparing the display of the person's name, which appears on the screen, and the actual name as it appears on the course register. If an error is made, re-entry is allowed. If a person is not on file and is a newly admitted person, who may have not been preloaded, it is possible for the operator to create a record on the disk for this person. After verification of the social security number and name, the operator enters the series of four digit codes, which represent the student's selections. The computer assigns priorities according to the sequence of the numbers as they are entered. As it proceeds through the course request form, it displays on the terminal screen the entire student's selections and identifies the closed sections and sections which are in conflict with one another. From the top of the screen, or the first entry, to the bottom, it will attempt to resolve each one of the closed and/or conflict sections to the satisfaction of the student by displaying to the student alternate sections which are open and fit into that student's schedule. If no sections are open and/or fit into that student's schedule, it allows the student to select another course, which has been previously approved by a faculty advisor. The same procedure is followed in the case of a conflict. Alternate sections of the same course are displayed together with their appropriate times and the student is allowed to make his selection. Also

in this process, if a course requires a lecture and a lab, the various messages displayed on the screen will identify that a lecture and lab are required and will display the alternates that are open to that student. This prevents a student from leaving the terminal area with a lab for which he has no lecture, or a lecture for which he has no lab.

In the event that a student is unable to resolve all the conflicts and/or closed sections, the final display is a display of the student's schedule as it stands after resolving closed and conflict sections. He may either accept the schedule, which may be a partial schedule and return during the add/drop period, or reject the schedule and return to a problem advisement area to get assistance. If student accepts his schedule, a card is punched out in the computer room containing the social security number, name, whether he is day, evening, or both, and the series of four digit codes which represent the student's selections. This card is used as a back-up card in the event that a disk is destroyed and/or file is destroyed during the current day's processing. At the same time the completed schedule is printed out for the student which he picks up at the computer center right next to the terminal room.

This briefly describes Monroe's on-line registration procedure. They also do, to a limited degree, on-line admissions and are in the process of building more programs in this area. At the present time, when an application is received, it and any others received that day are alphabetized and distributed to the four counselors, each of whom handle one-fourth of the alphabet. Assigned to each counselor is a secretary who is responsible for inputting the application form, via a CRT terminal unit, into the admissions system. Weekly transaction reports are prepared for the Admissions Department indicating the input of initial application forms as well as those decisions which may have affected the application form. Cumulative reports are also available on the CRT terminals in the Admissions Office. They are available upon request and in batch mode, which will indicate the various tallies per program in terms of applications received, target figures, incomplete applications, etc.

Monroe Community College, in my estimation, has done more in the field of on-line registration and admissions than any community college in the U.S. and they are continuing to look towards the future. My visit to this unique school was well worth the effort and time spent.

The fourth and last community college on my list was William Rainey Harper College in Palatine, Illinois. Of the five community colleges in the Chicago area, Harper is the largest with a student population of 8,769. I chose Harper College because it is among the first pioneers in the field of on-line registration. Their system is much the same as Monroe's, with a few differences, but it does have one unique system that I haven't discovered in any other community college, and that is registration by telephone. Their present on-line registration procedure was set up for them by IBM designers; and the improvements on the original design by their own staff of programmers. The system of registration is almost as I described the Monroe system, where the student works from master section schedules. The selections are presented to a terminal operator and the screen plays back the same combination of courses, conflicts and closed classes. The difference between Monroe's displays and Harper's program is that at Monroe the alternate "open" classes appeared on the same program, whereby at Harper,

if the selected course is filled or cancelled, the operator has to request a display of all sections that are available and then choose one that is not in conflict with student's schedule. Also, at Harper during registration, a terminal is made available to the registrar, deans and department heads for inquiry regarding registration status. For example, one can call out a display of all sections of a course and review the enrollment at that very moment, number of seats allocated, and class room capacity. A unique feature for the registrar was the capability to cancel a class and immediately get a display of those students' names who would be effected by the cancellation, thus being able to notify them immediately. Although Harper College received much publicity on its "registration by telephone", only a small percentage of its students use this system. All full-time students must come to the campus to register. They are assigned to a counselor at the time of admission and the assigned counselor is according to the student's indicated study program or field of interest. Harper College is a strong advocate of effective counselling service and each counselor specializes in his own major academic disciplines and each holds a master's, or better, degree.

One of the unusual features of Harper's on-line system is the ability to create a student record entry on the master file where one does not already exist. This occurs in the case of the student who shows up for registration without having previously filled out an admissions form. This student fills out an application form, sees a counselor and goes directly to registration. He does not have to wait to register until a record has been created and entered on the master file. He simply gives his name, address and social security number to the terminal operator, who enters this data to create a skeleton master file record for the

student, and then continues with the class scheduling procedure. A large percentage of telephone registrants are entered in this fashion.

)	QUESTIONNAIRE FOR MR. OLSON'S SABBATICAL LÉAVE TRIP
	COLLEGE NAME BURLINGTON COUNTY N.J. CONTACT PERSON NAME JOHN GREH
	What is the manufacturer, system and model number of computer hardware?
	e.g. IBM 370/135 DECK 10
	What is main memory capacity?
	e.g. 96K
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	What is disk storage capacity and model and number of drive?
	e.g. 174 million bytes 2319 - 6 drives
)	
	Approximately how many computer programs support the student system?
	e.g. 380 programs
	What is the size of total data processing staff?
	O.g. I manager - DEAN INSTISTUTIONAL RESEARCH PLANNING & INFO SYSTE. I secretary L 5 programmers 4 PROGRAMMERS
	Otc. I SYSTEMS ANAYSIS 7 KEY PUNCH OPERATI 1 RESEARCH 1 PIRECTOR OF OPERATIONS
	How many computer terminals service which areas?
	e.g. Financial Aids Admissions Business Services Registration etc. Financial Aids Admissions Business Services Registration etc.
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What are the major application areas of service? 0.g. Admissions/Registration - BiggEST USER Business Services - ON LINE Library - ON LINE etc. INSTRUCTION ALL BURLINGTON COUNTY What is approximate budget for equipment, personnel, and total? e.g. \$179,000 equipment ; \$200,000 personnel \$400,000 total etc. To whom does the data processing director report? e.g. Vice President, Business Chancellor Assistant to President etc.) Additional Comments: EN ROLLMENT 3400 ----

QUESTIONNAIRE FOR MR. OLSON'S SABBATICAL LÉAVE TRIP
COLLEGE NAME MIAMI DA de MINMI FLA, CONTACT PERSON NAME DAN DERRICO
What is the manufacturer, system and model number of computer hardware?
e.g. IBM 370/135 IBM 370/155
What is main memory capacity?
e.g. 96K MEGAbyrE
What is disk storage capacity and model and number of drive?
e.g. 174 million bytes 2319 - 6 drives 2314 - 8 drives 3330 - 8 Drives
Approximately how many, computer programs support the student system?
e.g. 380 programs 200
What is the size of total data processing staff?
e.g. I manager I secretary 5 programmers etc. 6.g. I manager I MANAGER 5 programmers 6.g. I manager I MANAGER 5 ANALYSTS 6 COMPUTER SERVICS I MANAGER I MANAGER I MANAGER I MANAGER 2 PROJECT ANALYSTS I SYSTEMS Y PROCEDURE ANALYST I SYSTEMS LIBRARIAN I SECRETARY 5 PROSRAMMERS
How many computer terminals service which areas?
e.g. Financial Aids (1) NORTH CAMPUS Admissions (2) Business Services (1) Registration (6) etc.

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and to

What are the major application areas of service?

e.g. Admissions/Registration (i) Business Services (2) Library (3) etc. TEGIING ARD RESEARCH

What is approximate budget for equipment, personnel, and total?

e.g. \$179,000 equipment SONE RENTAL \$200,000 personnel \$400,000 total (CANNOT be Accurately Estimated) etc.

To whom does the data processing director report?

e.g. Vice President, Business Chancellor Assistant to President, etc. Business DEAN OF INSTITUTIONAL RESEARCH AND PLANNING

3 CAMPUSES - 40,000 TOTAL ENROllMENT

Additional Comments:

ENROllMENT:

QUESTIONNAIRE FOR MR. OLSON'S SABBATICAL LEAVE TRIP COLLEGE NAME MON ROE COMMUNITY N.Y. CONTACT PERSON NAME HOLT BIERRE What is the manufacturer, system and model number of computer hardware? e.g. IBM 370/135 1BM 370/135 What is main memory capacity? e.g. 96K 240 K What is disk storage capacity and model and number of drive? 4-330 VISIT e.g. 174 million bytes 2319 - 6 drives Approximately how many computer programs support the student system? e.g. 380 programs What is the size of total data processing staff? 1 daily CONTROL DESK 1 MANAGER l manager e.g. 1 SUPERVISOR OF OPEARTORS l secretary 6 PROGRAMMERS 5 programmers 1 SECRETARY etc. 3 OPERATORS 2 ITEY PUNCHERS How many computer terminals service which areas? | Financial Aids | + e.g. I Admissions 4+ I Business Services 37 I Registration 6+ etc. 16 TERMINAL'S

1

What are the major application areas of service?

e.g. Admissions/Registration (1) Business Services (2) Library etc.

What is approximate budget for equipment, personnel, and total?

e.g. \$179,000 equipment \$200,000 personnel \$400,000 total etc.

\$448,000 TOTAL

To whom does the data processing director report?

e.g. Vice President, Business Chancellor Assistant to President etc.

RESIDENT.

Additional Comments:

QUESTIONNAIRE FOR MR. OLSON'S SABBATICAL LÉAVE TRIP

COLLEGE NAME HARPER College ILL. CONTACT PERSON NAME DON STANSbury

what is the manufacturer, system and model number of computer hardware's e.g. IBM 370/135 370/125

What is main memory capacity? 0.g. 96К 240 К (REAL)

What is disk storage capacity and model and number of drive? e.g. 174 million bytes 2319 - 6 drives (SAME)

Approximately how many computer programs support the student system?

e.g. 380-programs

1 - ON LINE SUSTEM 150- BATCH

What is the size of total data processing staff?

i manager 0.g. I secretary 5 programmers { SAME etc.

How many computer terminals service which areas?

I Financial Aids e.g. 1 Admissions i Business Services & TERMINALS JURING REGISTRATION l Registration 🤳 etc. 1 LOUNSELING

What are the major application areas of service?

e.g. Admissions/Registration Business Services - PAYROLL, R/P, MARGINAL ENCOMBERANCE PROCESSING Library Student CASE Studies FOR PATA PROCESSING COURSES etc. 3 INTERACTUE TERMINALS FOR Students (27415) TEST Scoring

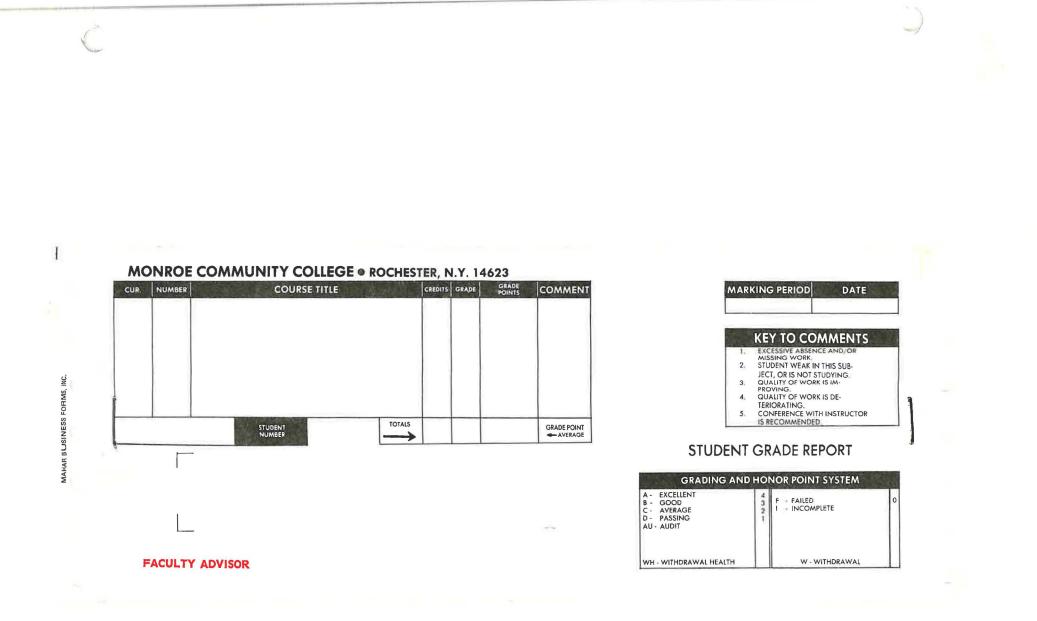
What is approximate budget for equipment, personnel, and total?

e.g. \$179,000 equipment - 241,000 INCLUDES A HAWLETT PACEARD LOCKE \$200,000 personnel - 203,00 FOR STUDENTS \$400,000 total -444,000 etc.

To whom does the data processing director report?

e.g. Vice President, Business Chancellor Assistant to President etc.

Additional Comments:



Please Check Term SPRING. 19. SUMMER, 19____

MONROE COMMUNITY COLLEGE ROCHESTER, NEW YORK

COURSE REQUEST FORM-DAY SESSION



STUDENT NUMBER 3 02 9 5 2-0 0

STUDENT

Doe, John

_____PROGRAM

M_LA.

TELEPHONE 334-3/32

PRIMARY COURSE SELECTIONS				ALTERNATE COURSE SELECTION #1				ALTERNATE COURSE SELECTION #2			
COURSE CODE	COURSE ABBR.	SECTION	CREDIT HOURS	COURSE CODE	COURSE ABBR.	SECTION	CREDIT HOURS	COURSE CODE	COURSE ABBR.	SECTION	CREDIT HOURS
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Advisor's Signature / Stattman				COMMENTS:							
Overload Course Approval (above 18 hrs.)											
Independent Study Approval (Dean, Curriculum and Instruction)											