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ABSTRACT

The Computer Rehabilitation Training Program for the Severely Disabled is a job-oriented training program to prepare physically handicapped persons to become computer programmers and analysts. The program is operated by: a nonprofit organization of Baton Rouge-area business people interested in data processing; the Department of Social Services, Louisiana Rehabilitation Services; the Louisiana State University (LSU) System Network Computer Center; and the LSU Division of Continuing Education. The program objectives include: provide training to enable students to develop skills necessary to be successful in a computer programmer/analyst position; provide a pseudo-work environment to aid the student to succeed in a working business environment; assist the graduate in acquiring his/her first position as a computer programmer/analyst; and develop independent living skills. The program seeks to maintain a highly qualified and complete curriculum designed to meet the needs of both the students and their future employers. The curriculum, which includes over 1,800 hours of lab experience during 11 months of instruction, encompasses such subjects as accounting, C programming, COBOL programming, operating systems, spreadsheet applications, and relational databases. This pamphlet describes the role of each agency helping to operate the program and lists admissions policies, academic and program policies, causes for dismissal, formal evaluation and review procedures, certification policy, awards, and benefits. (JDD)

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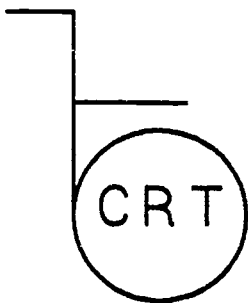
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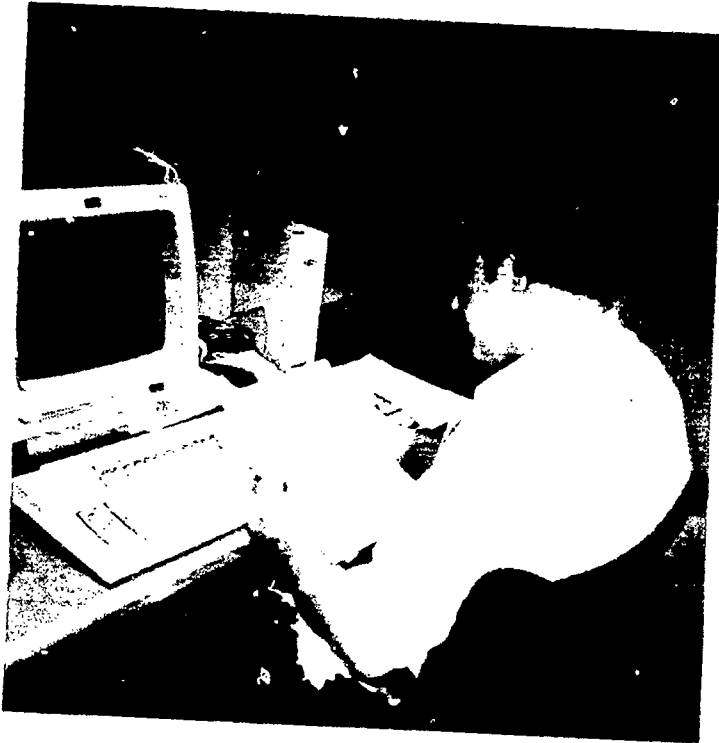
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Working together to build viable alternatives for  
the severely disabled.

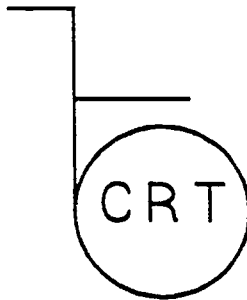




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Success should never be measured by the type of "job" one has, but by the profession he has chosen.





## LETTER FROM THE DIRECTOR

Thank you for your interest in the Computer Rehabilitation Training Program for the Severely Disabled (CRT). Those of us actively involved in CRT on a daily basis, as well as those whose support and guidance are so necessary for its existence, hope this catalog provides you with an understanding of our program and how it functions.

A primary objective of the CRT program is to maintain a highly qualified and complete curriculum designed to meet the needs of both the students and their future employers. Since 1980 our policy of improving and updating the curriculum each year has been instrumental in maintaining the CRT program's well deserved reputation for excellence in training.

Please take time to familiarize yourself with this catalog. We at CRT are proud to offer our program to students willing to meet the challenges of a rewarding career.

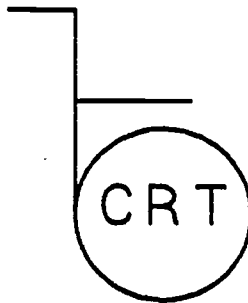
Sincerely,

Anne A. Drury, Director

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The CRT Program is an example of excellence in government and business teamwork...



## **THE CRT PROGRAM**

Computer Rehabilitation Training (CRT) is a job oriented training program to prepare physically handicapped persons to be computer programmers and analysts. The program was founded in 1980 by the Baton Rouge Chapter of DPMA and was inspired by IBM's training program for physically handicapped employees. CRT is linked nationwide to similar programs through the Association of Rehabilitation Programs in Data Processing (ARPDP). Since the first class of students which graduated in December 1980, the CRT program has an outstanding record of 100% job placement of its graduates.

The CRT program is an exceptional example of government and business teamwork. The team consists of the CRT's Business Advisory Council (BAC/CRT, INC.), a non-profit organization of local business people interested in data processing; Department of Social Services, Louisiana Rehabilitation Services; the Louisiana State University (LSU) System Network Computer Center; and the LSU Division of Continuing Education.

The BAC/CRT, INC. is directly responsible for the CRT curriculum, resources, candidate selection, operations, and graduate review and placement. Louisiana Rehabilitation Services finances the program, provides referrals from around the state for the program and supervises the candidates during training. The Division of Continuing Education, in conjunction with the System Network Computer Center, provides training on the Baton Rouge campus.

CRT students begin training each January and graduate from the program in December. They attend class six hours daily, Monday through Friday, for formal instruction and instructor-supervised programming. Another four hours of individual daily work is usually necessary to master the curriculum.

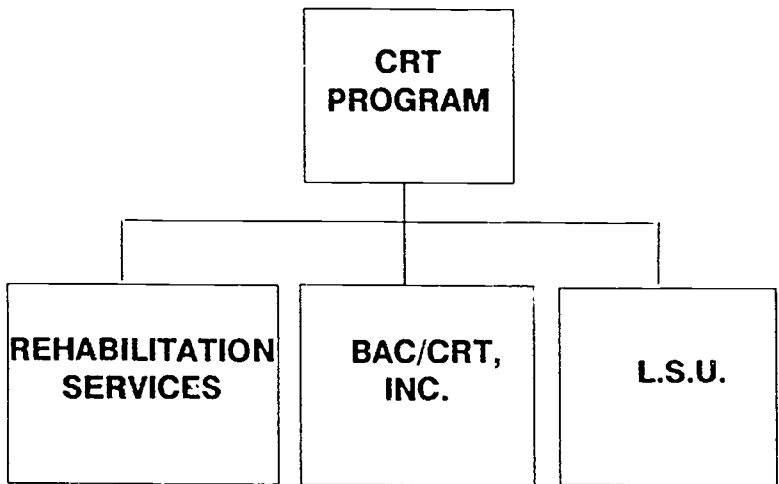
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The course work is targeted to meet the current business needs and expectations in data processing. More than twenty topics are included, ranging from general business and data processing topics to specific subjects such as programming for teleprocessing applications.

Students are also exposed to the complex phases of project development: design, documentation, coding, testing and implementation. A final COBOL project requires designing a business application system with at least five programs.

The CRT program is very cost effective. It is estimated that the program has saved the state and federal governments millions of dollars in social service benefits. This savings is magnified by the income taxes and sales taxes which the graduates are now paying.

BAC/CRT, INC. is a non-profit corporation which supports the CRT program with leadership and guidance. Individual and business memberships are available.

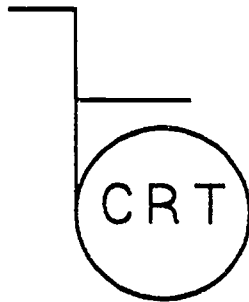


## PROGRAM OBJECTIVES

- A. To provide training to enable the CRT student to develop the skills necessary to be successful in a computer programmer/analyst position.
- B. To provide a pseudo work environment to aid the student to succeed in a working business environment as a computer programmer/analyst.
- C. To assist the CRT graduate in his/her first position as a computer programmer/analyst by providing an opportunity for the CRT graduate to develop his skills in formal interviewing with interested employers.
- D. To develop independent living skills through a professional curriculum as a computer programmer/analyst.

In order to accomplish the above objectives, the staff of the CRT Program and the members of the BAC/CRT, Inc. have developed a program of excellence designed to prepare the CRT student for the computer programmer/analyst position. The curriculum requires concentrated effort and dedication by the student. If the student is not totally committed to achieving the above objectives, it is recommended that the student not attend the CRT Program. The CRT Program does not guarantee job placement. If a student completes the program, the student will have obtained the necessary skills for successful employment.

The Mission of Louisiana Rehabilitation Services  
is to provide opportunities for employment and  
independence...



## **LOUISIANA REHABILITATION SERVICES (LRS)**

The Department of Social Services, Louisiana Rehabilitation Services is the funding agency for the Computer Rehabilitation Training Program for the Severely Disabled at Louisiana State University. The mission of LRS is to provide opportunities for employment and independence to individuals with handicapping disabilities through vocational and other rehabilitation services. These rehabilitation services are provided to disabled persons in order to improve the quality of their lives and help them achieve their goals for independence and employment.

The primary services provided by Louisiana Rehabilitation Services are:

*Vocational Rehabilitation Services*

*Independent Living Services*

*Louisiana Commission for the Deaf*

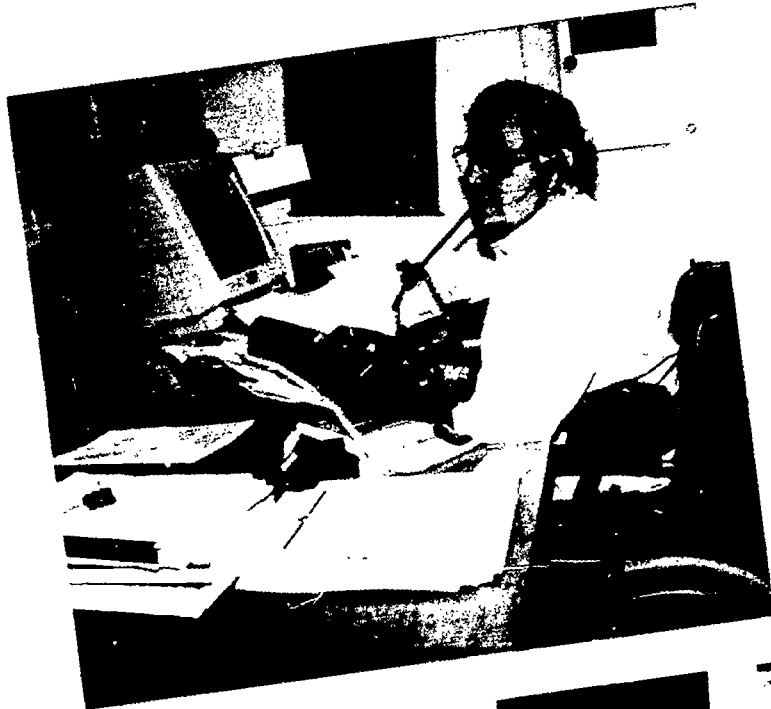
*Supported Employment Program*

*Randolph-Sheppard Vending Program*

*Visual Aids Clinic Program*

*Registry of Blind Persons*

*Personal Care Attendant Program*



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## ROLE OF LOUISIANA REHABILITATION SERVICES

LRS maintains a high profile with the Computer Rehabilitation Training Program for the Severely Disabled at Louisiana State University. The program receives funds from LRS to provide computer programmer/analyst training to eligible clients. The Program Manager for Louisiana Rehabilitation Services, who is responsible for the contract with Louisiana State University, is a member of the Business Advisory Council. The program is assigned a Supervising Counselor whose duties include:

1. Accepting referrals for LRS's counselors around the state.
2. Screening referrals to ensure the client records are complete and the applicant meets the minimum requirements for admission to the program.
3. Discussing the referrals with the Director of the program.
4. Corresponding with the original counselor concerning the appropriateness of the referral and the dates and times of the entrance examination and the interview with the Admissions Committee.
5. Discussing accepted applicants with the Director to ensure special needs can be met.
6. Sending the necessary information to the original counselors concerning starting date and special needs.
7. Assisting clients who need to relocate.
8. Meeting with the Director and program staff regularly and in cases of client emergency.
9. Providing counseling to individuals in the program as needed.



10. Attending progress staffings for clients.

Louisiana Rehabilitation Services is capable of monitoring the quality of the training provided by the program and the progress of the applicants through the "hands on" management provided by the Program Manager and the Supervising Counselor. In this manner, the quality of the services provided by the program can be directly related to the success of the individuals entering and exiting the program, thus ensuring successful placement and job security for all graduates.

**CLIENT ELIGIBILITY FOR LOUISIANA REHABILITATION SERVICES:**

To be eligible for LRS, an individual must apply for services at one of its nine regional offices in the state. A case is opened on the individual and diagnostic information is collected to establish that the individual meets the eligibility guidelines. The eligibility guidelines are:

1. The presence of a physical and/or mental disability which for the individual constitutes or results in a substantial handicap to employment.
2. A reasonable expectation that vocational rehabilitation services will benefit the individual in terms of employability.

**AND ALL THAT YOU CAN BECOME!**

*Louisiana Rehabilitation Services*



Open the top cover.  
Locate the blue latch on the top cover.  
To release the latch, pull it straight out.  
Locate the other blue latch above the paper tray.  
To release this latch, pull it towards the left.  
(Back View)





**BUSINESS ADVISORY COUNCIL**  
**for the**  
**Computer Rehabilitation Training**  
**of**  
**Physically Disabled Persons of Louisiana, Inc.**  
**(BAC/CRT, Inc.)**

The Business Advisory Council is a non-profit organization, consisting of volunteers in the data processing community. The Council is operated for the charitable and educational development of education programs. These educational programs are designed to train the physically handicapped in becoming successfully employed in the data processing profession. The role of the Council is to provide leadership and guidance to the CRT Program.

The Business Advisory Council (BAC/CRT, Inc.) is operated and maintained by membership dues. Corporation memberships are \$100. Individual memberships are \$10. These memberships are open to any interested party and are renewed yearly.

Some of our corporate members include: Dow Chemical USA, UNISYS, and Campus Federal Credit Union. The individual members represent IBM, Digital Equipment Corporation, Cajun Electric Cooperatives, Blue Cross of Louisiana, the Louisiana Association of Business and Industry, Capital City Press, and others.

The Council meets on the third Thursday of every month throughout the year. Officers are elected at the annual meeting held in January. All members are invited to the annual meeting.

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Officers for the Business Advisory Council include the President, Vice-President, Treasurer and Secretary. Other members of the Council are committee heads and members. There are five standing committees: (1) Candidate Selection and Review; (2) Curriculum and Graduate Review; (3) Graduate Placement; (4) Membership; and (5) Public Relations.

The Candidate Selection and Review Committee meets each student prior to acceptance into the program. The committee determines eligibility of the applicant and informs the student about the data processing profession.

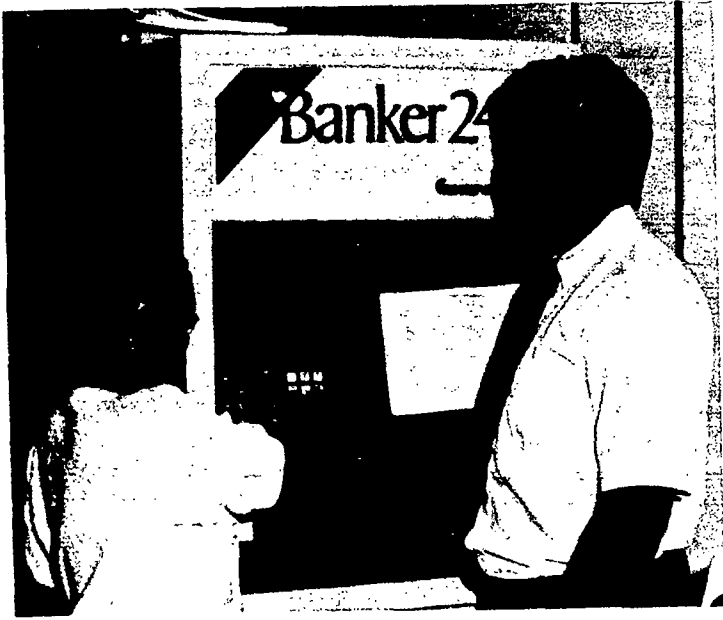
The Curriculum and Graduate Review Committee surveys graduates and employers of our graduates to determine any skill deficiencies or enhancements. Based on these surveys, the committee may change the curriculum. Because of the dynamic curriculum, the student is better able to meet the employer's requirements.

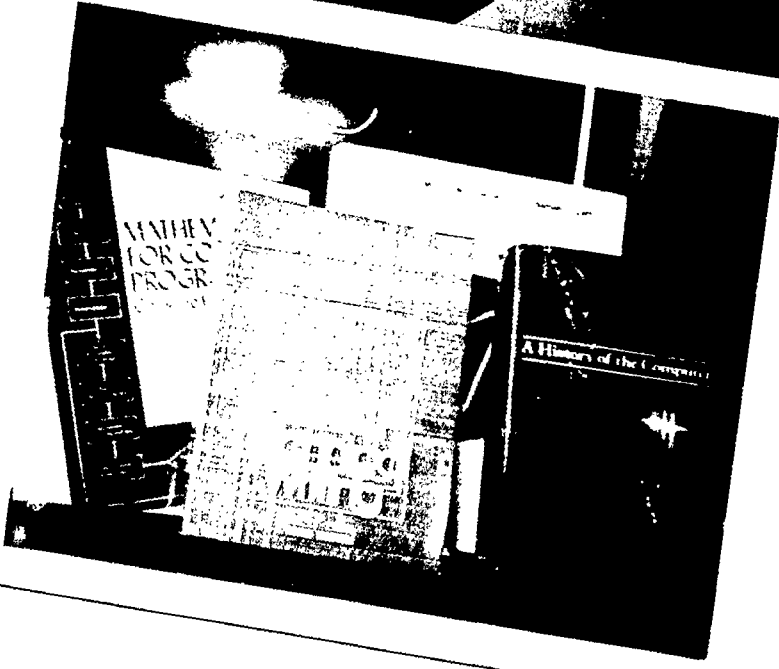
The Graduate Placement Committee works with the students and employers to find the best match. The committee prepares the students for the interviews and resumes. Members of the committee provide "mock interviews" in preparation for end of the year interviews. Because of our curriculum, students, and outstanding reputation of the program, the CRT Program has enjoyed 100% job placement.

The Membership Committee recruits new members to the program.

The Public Relations committee publishes a semi-annual newsletter and maintains public awareness about the program.

The Council has been on a "speakers tour" of the state, discussing the program with counselors and civic groups across Louisiana. The tour highlights the benefits of the program and the need for increased referrals.





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## Louisiana State University

Louisiana State University (Baton Rouge Campus) houses the facilities for the CRT Program. The program is located in Pleasant Hall under the direction of the Division of Continuing Education for LSU.

LSU's responsibility to the program is to provide all educational facilities and staff for CRT. The full-time instructors and director are employees of LSU and report directly to the Dean of Continuing Education. Part-time instructors are hired on an as needed basis for special technical subjects. Qualifications for instructors are

- Actual business experience in the subject area to be taught by the instructor.
- Teaching experience.
- Bachelor of Science or equivalent degree (graduate experience preferred).
- Rapport with students, staff, and community leaders.
- Recognition in subject matter taught by instructor.

LSU, through the System Network Computer Center (SNCC), provides all technical communications and access to the IBM mainframe which is located on campus and used as the basis for instruction.

All classes for the CRT program are held in Pleasant Hall at LSU.



## **ADMISSIONS POLICIES**

All candidates who wish to attend the CRT Program must be clients of Louisiana Rehabilitation Services.

Candidates to be considered for the academic year beginning in January and ending in December shall be required:

1. To be recommended by his/her Louisiana Rehabilitation Services Counselor.
2. To be of average intelligence.
3. To have good reading, mathematical, and logical skills.
4. To have a high school diploma or GED.
5. To make the minimum acceptable score on the CRT entrance exam.
6. To complete successfully two (2) college level courses (as approved by the Director of the CRT Program) the semester prior to entering CRT.





7. To successfully complete an interview with the BAC/CRT, Inc. Candidate Selection Committee and be recommended by the committee for acceptance into the program.

All of the above requirements are mandatory for consideration as a candidate into the program.

Candidates who are accepted into the CRT Program are not allowed to work while attending the CRT Program.

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## ACADEMIC AND PROGRAM POLICIES

Every subject and topic is mandatory for the completion of the CRT Program. The curriculum was developed by the BAC/CRT, Inc., a highly skilled and competent group of professionals who are strongly committed to the training of highly competent professionals in programming and analysis skills.

Every single assignment in the CRT Program is important and must be completed at the specified time.

Students are required to maintain an 80% in all subjects. If the student fails to maintain an 80% in any one subject, the student is immediately placed on probation. Less than 80% in any programming language will be cause for dismissal from the program.

The Director of the program shall be responsible for informing the student when he/she is on probation and shall be the only qualified individual to inform the student when he/she is no longer on probation.

Continued probation for a period in excess of one month will be cause for removal from the program. Continual placement on and removal from probation shall be cause for dismissal from the program.

A student may make a written request to the Director for review of a student's placement on probation. However, the written request must state legitimate factors for review. A student may make a written request to the Director for review of his removal from the program; however, the Director's decision as to removal for academic reasons will be final. All other causes for removal may, at the Director's discretion, be brought before the Business Advisory Board.

Students in the program are encouraged to confer with their instructors as to their progress in the program. Students are requested to make appointments with their instructors to discuss their progress in the

subject taught by the instructor. Student, instructor, LRS counselor, and Director conferences will be held whenever necessary. The CRT Program and Director maintains an "open door" policy for student conferences.

Final responsibility for the educational facet of the program is the Director's. The Director, with supervisory advice from the BAC/CRT, Inc., shall make all decisions pertaining to the educational areas of the program. Each instructor shall be given the authority and responsibility for his/her class. If a student should have any problem with the subject material as taught by the instructor, the student is encouraged to make an appointment with the instructor involved.

The student shall be required to maintain the required pace of the program and all assignments. Therefore, no student is allowed to work while he is attending the program.

#### **CAUSES FOR DISMISSAL**

A student shall be dismissed from the CRT Program for the following reasons:

1. Disruptive behavior.
2. Cheating in any form or manner.
3. Academic performance below standard as required by the program.
4. Habitual absence or tardiness.

Students can and may be removed from the program at any time during the academic year.

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## **FORMAL EVALUATION AND REVIEW**

The CRT Program conducts two (2) formal evaluation periods. One evaluation period will take place six (6) weeks after the beginning of the academic year, and the other will take place twelve (12) weeks after the beginning of the academic year. The purpose of these two (2) evaluation periods is to determine if the student is qualified to complete the rigorous curriculum as maintained in the CRT Program. The BAC/CRT, Inc. and the staff of the CRT Program wish to match the right person with the right profession. Computer programming is not for everyone. It is an objective of the program for students to be placed in employment positions best suited with the skills of the student. If it is determined that programming is not applicable to the student, the student will be asked to resign from the program and/or the student will be removed from the program.

If the student successfully passes the second evaluation period, it is the general consensus of the staff and the BAC/CRT, Inc. that the student will be capable of successfully completing the program. However, the successful completion of the second evaluation period does not mean that the student may fall below the academic standard as required by the program. A student can and may be removed from the program at any time during the academic year.

## **HOLIDAYS AND VACATION PERIODS**

All holidays mandatory for the staff of CRT are mandatory holidays for the students. Students of the CRT program do NOT follow the schedule of the regular LSU students.

Two (2) semester breaks will be given the CRT students. One semester break will occur in the spring and is usually provided around the Easter holidays. The second semester break is provided around the first two

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(2) weeks of August of each academic year. Student are required to schedule their vacations at these times. Assignments are given to the students during the semester breaks.

## **ABSENCES**

Habitual absences and any tardiness will not be allowed. The students are expected to attend all classes. Personal appointments, medical appointments, and other matters are required to be scheduled outside of class time. Classes in the past have been held between the hours of 1:00 pm and 7:00 pm. Absences of any kind are discouraged due to the pace and amount of material that must be completed in an academic year. Appointments should be scheduled in the morning hours.

If a student is to miss a scheduled class due to unforeseen events, the student must inform the Director and the instructor whose class the student will miss prior to the day of absence.

If a student is ill, the student must call the Director (or in the Director's absence, the instructor on duty) and inform the Director of the student's reason for missing class. Informing a fellow student of the student's absence is not acceptable nor adequate.

## **INSTRUCTORS**

All instructors are to be referenced by their formal names: Dr. X, Mr. X, Ms. X, etc. Each instructor is responsible for the operation of his/her class. Each instructor will have his/her own requirements for the student to complete and procedures to follow. Each student is required to familiarize himself/herself with the requirements of each instructor and to follow said requirements. All grades of the instructor are final except those which involve mathematical errors in calculation.





## **COST**

There are no fees for attending the CRT program. All educational costs are paid by contract to LSU through Louisiana Rehabilitation Services. All books, supplies, and equipment necessary for the program are supplied by the program.

The student is responsible for his own transportation and housing costs. Students requiring assistance in transportation, housing, or attendant care must make arrangements with their Louisiana Rehabilitation Services counselor.

## **CERTIFICATION**

All students completing the CRT program are presented a Certificate of Satisfactory Completion at graduation ceremonies. The certificate represents to all potential employers the student's successful completion of CRT's rigorous curriculum to the level required by the academic policies of the program.

In some business and state agency environments, the CRT certificate is accepted in lieu of a 4-year degree from a university or college.

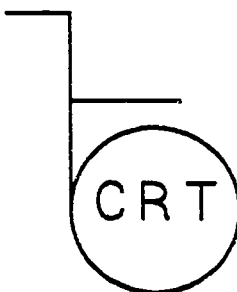
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BRETT MORRISON MEMORIAL AWARD

Computer Rehabilitation Training  
Louisiana State University

Presented By: BAC/CRT, Inc.



## AWARDS

Each year the staff of CRT and the council for BAC/CRT, Inc. recognize one student with the Bret Morrison Memorial Award. The student nominated for this award must possess the following characteristics:

- Independent living skills.
- A team player.
- Creativity and curiosity in developing ways to improve the data processing profession and his/her own technical skills.
- A desire to learn and a proven track record while a student at CRT.
- Cooperative and helpful attitude to his/her fellow students, as well as to the instructors.

Bret Morrison, a 1981 graduate of CRT, passed away but not after establishing the reputation of a "team player" in the data processing field. He loved both his work and his fellow man. Bret was well respected by his fellow classmates and all those who worked with him. His natural curiosity made Bret stand out among his peers in data processing. Bret demonstrated through his professional and personal life that disabilities are disabling only if one allows himself to believe he is disabled.

# COMPUTER LITERACY TRAINING



## **BENEFITS**

The Computer Rehabilitation Training Program offers many benefits to students, employers and the state of Louisiana.

For the students, the CRT Program offers a full-time hands-on experience where they learn practical data processing techniques. The curriculum is designed to meet the needs of the employer and structured to allow a student to progress successfully into his/her first position as a programmer/analyst. Students benefit both professionally and educationally from instructors who demonstrate hands-on professional expertise in their subject area.

Employers benefit from the CRT Program by hiring qualified programmer/analysts without long periods of in-house training. With CRT's emphasis on practical applications to data processing and hands-on experience, employers are able to utilize the skills of the graduates immediately upon placement. Many of the graduates are employed in Louisiana, Pennsylvania, Florida, Alabama, and Maryland.

In a study done by the State of Louisiana, the program will earn the state \$2,800,000 in benefits. The benefits include savings from Social Security benefits that are no longer paid to the student and income taxes now paid by the employed graduate.



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## **THE CRT CURRICULUM**

The CRT curriculum emphasizes up-to-date, hands-on training to provide the students with the knowledge and skills necessary to compete and survive in the data processing environment. The curriculum provides instruction in both the micro and mainframe environments and includes over 1800 hours of lab experience. Students and graduates agree that this eleven-month program prepares them well for careers in the data processing job market.

### *ACCOUNTING*

This course introduces the student to accounting practices for sole proprietorship. It covers the basics of accounting, financial statements, business transactions, managing entries, service and trade business differences, special journals and controls, receivables and payables, assets recording and inventory cost and recording. Examples illustrate accounting principles, terminology and financial reporting.

### *ASSEMBLER PROGRAMMING*

This course provides an introduction to IBM System 370 assembly language programming. Assembly language is a low-level symbolic representation of machine language. Because of its close relationship to the machine, the fundamentals of the machine's structure and function are also presented as they relate to assembly language programming. Structured assembly coding is emphasized.

### *BASIC*

The student is introduced to the most widespread programming language for micro computers. The nature of the language promotes hands-on exposure and orients the student quickly to program develop-

ment and implementation. Topics presented include program input and output, arithmetic and comparative operations, menus, arrays, sorting and report generation. A final project is required.

### *BUSINESS COMPUTER APPLICATIONS*

This course introduces the student to the design characteristics of the most common types of online business computer applications. Business applications presented include accounts receivable and payable, order entry, purchasing and receiving, employee payroll and general ledger. The student learns business concepts, properties of online applications, online system designs, budget and profit planning, sales analysis and market planning.

### *BUSINESS MATHEMATICS*

This course prepares the student to develop algorithmic solutions to mathematical problems: input - process - output. Exercises emphasize business oriented problems which can be solved using algorithms. With this approach, the student learns that the computer can also be used to solve these problems quicker and with more accuracy. Binary, octal, decimal and hexadecimal number systems are covered. EBCDIC and ASCII computer codes are introduced.

### *C PROGRAMMING ON THE MICRO COMPUTER*

This course provides the student with an understanding of the basic characteristics of the C programming language. Examples demonstrate the typical uses of the language. C is a very good language for general purpose applications because of its powerful features and its ability to run on a variety of computers.

### *CICS ONLINE APPLICATIONS*

This course presents the components and functions of Customer Information Control System. CICS concepts and terminology are introduced. The distinction between online and batch processing is discussed. The student learns the flow of an online transaction through the CICS and MVS systems. CICS COBOL command level programming is used to solve online business problems using both unformatted and formatted screens. Basic testing and debugging tools are also presented.

### *COBOL PROGRAMMING*

This course prepares the student to develop structured COBOL programs for business applications. The student learns to code, compile, execute and debug COBOL programs; advanced COBOL features presented include the use of multidimensional tables, hard-coded tables and sort/merge techniques. Documentation, top down development, report writing, the use of multiple input and output files and extensive testing procedures are stressed.

### *COBOL PROJECT*

The student must design, code, test, document, and implement a business computer application system. This includes creating files, generating an EDIT program to edit the data and generating multiple report programs. The system must be completely documented with a description of each program, a system flowchart, sample input and output, and a description of the input and output files. The student gains valuable experience in the various phases of system design.

### *DATA PROCESSING*

This course provides an overview into the field of data processing and is the foundation upon which other CRT courses are built. Structured

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programming techniques, data communications, computer security, application languages, systems analysis and design, and computer hardware are introduced.

### *DOCUMENTATION*

This course teaches the student to develop structured and standardized documentation. The student learns how to develop and differentiate between run, system, user and program documentation.

### *FOCUS PROGRAMMING ON THE MICRO COMPUTER*

This course introduces the student to a non-procedural language which uses English phrases to describe, update, report, and graph data. The student learns FOCUS concepts and terminology, data manipulation and report generation.

### *IMS/VS DL/I BATCH APPLICATIONS*

This course is designed to teach the student the advantages of databases over conventional files. The student learns the flow of DL/I application program during execution, the hierarchical structure of DL/I database, the components of DL/I application program, and the structure of DL/I program statements. Emphasis is placed on coding COBOL programs which issue input and output requests to DL/I databases. Advanced topics include primary and secondary indexing, logical relationships between databases and multiple positioning within a database.

### *JOB CONTROL LANGUAGE (JCL)*

The course presents basic JCL terminology and coding rules. The student learns the general format of the JOB statement, the EXEC statement, and the DD statement. JCL required to compile, link and execute a COBOL program is explained in detail. Emphasis is placed

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on coding DD statements to identify input and output datasets used by programs. The students learn to flowchart a batch job identifying the inputs, the program, and the outputs of each step. Advanced topics include tape dataset utilization, condition code manipulation, temporary datasets and procedures.

#### *LOGIC FLOW: SYSTEM & PROGRAM FLOWCHARTING*

This course teaches the student to develop program flowcharts illustrating the logical flow of a program. The student also learns to develop system flowcharts illustrating the inputs and outputs of each program through the system as well as the interaction of the programs within the system. Structured flowcharting is emphasized.

#### *LOTUS 1-2-3 SPREADSHEET APPLICATIONS ON THE MICRO COMPUTER*

This course introduces the spreadsheet/graphics packages available for use by managers and analysts. The student learns the concept of spreadsheets, spreadsheet design and construction, formatting and printing. As a final project, the student is required to design, code and implement a Revenue and Expense report for a typical sales oriented company.

#### *MANAGEMENT*

This course teaches the students the concepts of management functions and management systems. These concepts are illustrated with real-life situations and introduce the student to the four functions making up the management process.

#### *OPERATING SYSTEMS*

This course introduces the concepts and functions of operating systems. Emphasis is placed on sophisticated batch, time sharing, and

real time systems. Topics include multiprogramming concepts, fixed and variable regions, paging types and algorithms, segmentation and virtual memory.

### *RELATIONAL DATABASE*

This course is designed to familiarize the student with 4th generation languages by developing application codes on the micro computer. The student will design, code, test, document, and implement a business application using a popular database package. Topics include creating and using database files, concepts and terminology, and report generation. A final project is required.

### *STATISTICAL ANALYSIS SYSTEM (SAS) PROGRAMMING*

This course presents the capabilities of the SAS programming language. Emphasis is placed on using SAS to produce specialized reports based on user input, either from input records or data files. Topics include SAS constructs and terminology, input and output data, SAS procedures, sorting data, report generation, and producing graphs.

### *SYSTEM DESIGN AND ANALYSIS*

This course provides the student with an understanding of the duties of the Systems Analyst. The student gains an understanding of the specific methods and techniques for conducting a systems project from the preliminary investigation through implementation. Topics presented include introduction to systems design and analysis, investigation techniques, design of system components, project scheduling, program specifications, testing and documentation.

### *SYSTEM PRODUCTIVITY FACILITY (SPF)*

This course is designed to teach the student to use the SPF full-screen tool. The student learns how to use the SPF panels to perform useful functions, many of which mimic TSO commands learned in the TSO course. Emphasis is placed on allocating, editing, managing, and deleting files. The student becomes familiar with the SPF full-screen editor which is used to generate all programs and JCL that run on the mainframe. Students learn to submit a batch job, review its output online, and correct errors.

### *TECHNICAL WRITING AND ORAL COMMUNICATIONS*

The student learns the concepts of good technical writing and oral communication. Emphasis is placed on grammar, punctuation, controlling the reader or listener. As a final project, the student must present a technical paper and a five minute speech based on the paper.

### *TIME SHARING OPTION (TSO)*

This course familiarizes the student with the 3270-type keyboard and how to access the MVS operating system by creating a TSO session. The student is introduced to TSO concepts and facilities. The student learns basic TSO commands, the TSO line editor, and the online help facility. Emphasis is placed on optimally allocating sequential and partitioned datasets on direct access storage devices (DASD).

### *VIRTUAL SEQUENTIAL ACCESS METHODS (VSAM)*

This course introduces the VSAM access method and its usage in the COBOL environment. The student learns VSAM terminology, access method functionality, and the three different types of VSAM files: VSAM key-sequence files (KSDS), VSAM entry-sequenced files (ESDS) and

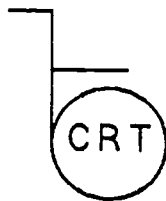
VSAM relative record files (RRDS). As a final project, the student is required to create a VSAM file and write a COBOL program to add, update and print records from the file.

#### *WORD PROCESSOR ON THE MICRO COMPUTER*

This course introduces the student to the features of a word processing product. The student will use one of the more popular word processing packages to generate documentation required in course assignments, including projects and technical writing reports.

#### *MISCELLANEOUS COURSES*

Additional courses are provided in the curriculum based on the recommendations of the BAC/CRT, Inc. and the technical growth of the industry.



NOTES: