ED 110 104   JC 750 410

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TITLE   Student Grade History System.
INSTITUTION   Montgomery Coll., Rockville, Md. Data Systems
                Center.
PUB DATE   May 75
NOTE   69p.

EDRS PRICE   MF-$0.76 HC-$3.32 PLUS POSTAGE
DESCRIPTORS   Academic Records; Computers; Data Bases; Data
                Collection; *Electronic Data Processing; *Information
                Systems; *Junior Colleges; *Recordkeeping; *Student
                Records; Systems Development
IDENTIFIERS   *Montgomery College

ABSTRACT
            This document describes the computerized procedures
developed and utilized by Montgomery College (Maryland) to maintain
records related to student academic progress. The new system was
fully operable by fall 1972. Systems development included: (1) the
conversion of past student records to a permanent grade history file;
(2) the development of a new grade reporting system for active
students; and (3) the establishment of an automated graduation
checklist procedure (matching the student's completed and in-progress
courses against curriculum requirements) in order to streamline
advising and checkout functions. The objective of this system was to
help the campus Records Office maintain accurate and complete student
records on a campus enrolling over 10,000 students. The document
describes the system design by providing flow charts of system
procedures and presenting the data elements for each of the three
system components, and by including sample report cards and other
output forms. It also presents complete operating instructions by
providing sample input forms, file maintenance instructions, and the
processing schedule, and by describing error messages, correction
procedures, and systems controls. (DC)

This manual describes the Grade History System developed by the Data Systems Center. We would like to acknowledge the excellent co-operation and assistance received from other departments within the College community:

Records Office, Rockville Campus

Registrars Office, Takoma Park Campus

This is not to say that we are not appreciative of the help we received from within our own center. We would like to express our appreciation to both the keypunch operators and computer operators who helped us meet our initial conversion deadlines. We would also like to thank the control specialists, especially Mrs. Janet Wood, whose interest and hard work helped turn our ideas into the functional system we are about to describe.

Stephen R. White, Programmer/Analyst

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SYSTEMS DEVELOPMENT

A. General Description

The Student Grades System provides the college and the student with
dynamic reports relating to the students academic progress at Montgo-
mery College.

Through the use of modern data collection and storage devices, the
system accumulates data pertaining to courses taken by the student
both at Montgomery College and any other college. Additional course
data is entered concerning those courses that have been waived/sub-
stituted or exempted. Data relating to graduation or complete withdrawal
dates is also entered. The result is a complete Student Grade History
File.

At the end of each semester, or when specifically requested, grade his-
tory reports are printed for the college, the student and his advisor.
Each report shows at a glance the history of the students course work.
These reports will significantly aid advisors and students in the pre-
paration of semester schedules and the efficient completion of course
work in the students selected curriculum.

B. Background

The Student Grade System is not a new system, but an improvement on the
old one. The old Student Grade System involved the punching of
"Grade" cards for each student enrolled in each section of each credit
course offered by the college at the end of the semester. After the
student was graded, the cards were repunched, sorted, and merged with
cumulative grade records containing grade and quality point averages
from previous semesters. New averages were computed and listed with
the current semesters courses on gummed labels and data mailers. The
mailers were sent to the students and the labels were attached to the
student's Permanent Record Card. With an enrollment rapidly approaching
10,000 students per semester, we felt that a more efficient and sophisti-
cated method of grade collection and reporting was necessary.

The conversion to new Student Grade System began in the fall of 1971.
The project was divided into three areas:

> Creation and Maintenance of the Grade History File
> Final Grade Reporting
> Graduation Checkout

The first area of the new system project involved merging together all
of the semester final grade tapes from Fall, 1968 through Fall, 1971.
While the courses were being merged on the students identification
number (social security number), the courses were also being checked
for validity (was this course actually offered at this time). The
course check involved building a random access disk file for all

courses offered at the college since 1947. After the files were merged, all of the records for the Spring, 1972 active students were extracted and printed. Each active student's record was compared with his Permanent Record Card by the Records Office staff. Only active students were verified in order to cut down on the work load on the Records Office staff. If necessary, corrections were made and courses taken prior to Fall, 1968 were entered. Our goal was to validate all active students enrolled in the Spring, 1972 semester at least one month before the end of the semester, and it was accomplished. Each semester from then on, all active student records excluding the students whose records had been verified previously will be printed and sent to the Records Offices for verification. Over the years, the number of unverified returning students will be reduced to zero.

The second area of the project was to develop a new grade reporting technique. The major problem area in the old system was Permanent Record Card maintenance. If a change had to be made to the card, it usually involved inking over the old course or grade and hand typing the correction. A correction involving two or more lines usually meant retyping a new Permanent Record Card. By maintaining all of the students Permanent Record Data in a computerized file, changes made to any specific student record would automatically generate a new Permanent Record Card, with re-computed grade and quality point averages. The programming was done while the data was being converted and was completed at approximately the same time. The new system was in operation for the Spring, 1972 semester.

The third area of the new system was a completely new area of interest. Having decided to maintain all of the course data for all active students in a magnetic tape file, we felt that an automated graduation checklist procedure (matching the students completed and in-progress courses against those courses required in his curriculum) would save the student and the college considerable time in advising and checkout functions. This area required the creation of a Curriculum Requirements File. The Graduation Checkout area was operational for the Fall, 1972 semester.

C. Objectives and Responsibilities

The objective of this system is to help the campus records office maintain accurate and complete student records. By doing this, the students will receive accurate grade reports and constructive advising. In fulfilling the above mentioned objective, the computer system plays only a small part. The bulk of the work will still be controlled by the campus records offices, through accurate data entry and use of system controls.

Accuracy is a direct result of the amount of time, effort and interest that all parties are willing to put into the system. Every effort will be made by Data Systems to assist each records office staff in producing accurate information. The cooperation of each individual is essential in the area of legible and correct input documents.

A detailed explanation of the system controls for this system can be found in the Operating Instructions section. It should be noted here, however, that it is the campus records office involved who retains final control and accountability for the proper operation of the system. Data Systems should only be viewed as an assistant in the operation of the system, responsible for prompt and accurate processing of its specific functions.

It is important that any undocumented errors be brought to the attention of Data Systems immediately. Due to the speed with which data is processed through the system, a small error can be compounded into a large one in a very short time. In the final analysis, data accuracy and rigid data control will result in accurate and complete student record files.

D. System Design

    1. General Flowchart - Symbols Used in Flowchart
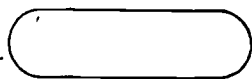
        Beginning or terminal disposition of
        Reports, Data, Etc.
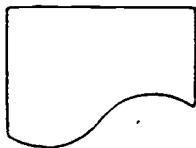
        Report or input form
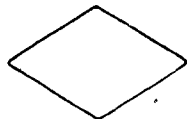
        Some decision is to be made

        Manual process
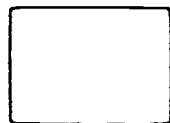
        Computer process

        Punched card
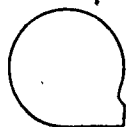
        Computer tape
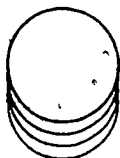
        Computer disk

        Connector

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a. Final Grade Processing

```
                    ( Records Office )
                            |
                            v
                     +-------------+
                     |  Final      |
                     |  Grade      |
                     |  Forms      |
                     +-------------+
                            |
                            v
                     +-------------+
                     |  Optical    |
                     |  Scan       |
                     +-------------+
                            |
                            v
     ( Previous          ( Final
       Extract )           Grade
         |                 Tape )
         v                    |
      +-------+               v
      | Audit |          +----------+
      | With- |--------->|  Merge   |
      | Drawn |          |  Grades  |
      +-------+          +----------+
                              |
                              v
  ( Master            ( Final
    Course              Grade
    Disk )              Tape )
         \                  |
          \                 v
  ( Appl.  \          +----------+     +---------+     / Correct  \
    Tape )---------->  |  Edit    |---->| Final   |--->|   and     |
                      |  Grades  |     | Grade   |     \  Rerun   /
                      +----------+     | Errors  |
                              |        +---------+
                              v
                        ( Edited          ( 1 )
                          Grades )---->
                              |
                              v
                            ( 2 )
```

① → Edited Grades

Master Course Disk

Grade Hist. → Update Grade History ← Appl. Tape

→ New Grade Hist.

Curric. Disk

Appl. Tape → Select Current Enrollees → New Appl. Tape

→ Report Tape

Advisor Report ← Print Reports → Grade Mailer

→ Permanent Record Cards

Records Office

② → Edited Grades → Print Official Grades → Grade Verif. Sheets → Records Office

Office

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b.   Grade History Processing

```
                        ┌─────────────────┐
                        │  Records Office │
                        └─────────────────┘

   ┌──────────────┐   ┌──────────────┐   ┌──────────────┐   ┌──────────────┐
   │ Advanced     │   │ Grade        │   │ Substitute   │   │ Graduates    │
   │ Standings    │   │ Verif.       │   │ and          │   │              │
   │              │   │ Sheets       │   │ Waivers      │   │              │
   └──────────────┘   └──────────────┘   └──────────────┘   └──────────────┘

          ┌──────────────┐   ┌──────────────┐   ┌──────────────┐
          │ Withdrawals  │   │ Grade        │   │ I.D. Number  │
          │              │   │ Changes      │   │ Changes      │
          └──────────────┘   └──────────────┘   └──────────────┘
```

Keypunch

Master
Course
Disk

Transaction
Cards

Grade
History   Edit for   Edit   Correct
                 Update   Errors   and
                                                  Rerun

Edited
Trans.

.1

```
                              ( 1 )
                                |
                                v
      ,-------.            ,---------.
     / Master \           /  Edited   \
    |  Course  |          |  Trans.   |
     \  Disk  /            \         /
      `---.---'             `----.---'
           \                     |
            \                    v
   ,------.   \          +--------------+         ,------.
  / Grade  \   `------->  |    Update    |  <----- /  Appl. \
 | History  |----------->|    Grade     |        | Tape    |
  \        /              |   History    |        \       /
   `------'               +--------------+          `------'
                                |
                                v
                            ,---------.
   ,------.                /   New     \
  / Curric. \              |  Grade    |
 |   Disk    |             |  Hist.    |
  \         /               \         /
   `----.---'                `----.---'
         \                        |
          \                       v
  ,------.  \            +--------------+         ,--------.
 / Appl.  \  `--------->  |   Selected   |  -----> /   New    \
|  Tape    |------------>|   Updated    |        |  Appl.    |
 \        /               |   Records    |        |  Tape     |
  `------'                +--------------+         \         /
                                |                   `--------'
                                v
                            ,---------.
                           /  Report   \
                           |   Tape    |
                            \         /
                             `----.---'
                                  |
                                  v
                          +-----------+        +-----------+
                          |   Print   |------->|  Grade    |
                          |  Records  |        |  Mailer   |
                          +-----------+        +-----------+
                                |                    |
                                v                    |
                          +-----------+              |
                          | Permanent |              |
                          |  Record   |              |
                          |  Cards    |              |
                          +-----------+              |
                                |                    |
                                v                    v
                          ( Records Office  ) <------'
```

8

c. Graduation Checkout.

```
                        ┌──────────────┐
                        │  Third Week  │
                        └──────────────┘
                               │
                               ▼
                          ╭─────────╮
                          │  Appl.  │
                          │  Tape   │
                          ╰─────────╯
                               │
                               ▼
                        ┌──────────────┐
                        │   Select     │
                        │   Tent.      │
                        │  Graduates   │
                        └──────────────┘
                               │
                               ▼
   ╭─────────╮            ╭─────────╮              ┌──────────┐
   │ Grade   │            │ Tent.   │──────────────│  Print   │
   │ Hist.   │            │ Grads.  │              │ Control  │
   ╰─────────╯            ╰─────────╯              │  List    │
         │                     │                   └──────────┘
         │                     │                         │
   ╭─────────╮   ┌──────────┐  │                         ▼
   │ Curr.   │──▶│  Merge   │◀─┘                  ┌──────────────┐
   │ Sem.    │   │   all    │                     │ Tent. Grad.  │
   ╰─────────╯   │ Courses  │                     │   Control    │
                 └──────────┘                     │    List      │
                       │                          └──────────────┘
                       ▼                                 │
                  ╭─────────╮                            │
                  │ Tent.   │                            │
                  │ Grads.  │                            │
                  ╰─────────╯                            │
                       │                                 │
   ╭─────────╮         ▼                                 │
   │ Curric  │   ┌──────────┐                            │
   │ Disk    │──▶│ Curric.  │                            │
   ╰─────────╯   │  Check   │                            │
                 └──────────┘                            │
                       │                                 │
                       ▼                                 ▼
                ┌──────────────┐              ╭──────────────────╮
                │ Graduation   │─────────────▶│  Records Office   │
                │ Checkout     │              ╰──────────────────╯
                │ Report       │
                └──────────────┘
```

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2. Data Elements for the Grade History File.

The Grade History File contains complete records for all students that have been active at Montgomery College since Spring, 1972. The file contains partial records for those students that have attended Montgomery College since Fall, 1968.

The Grade History File is a variable length tape file. Relatively static data such as Student Name, Social Security Number and Academic Status is maintained in the fixed length portion of the record. Data pertaining to Advanced Standings, Courses Attempted and Completed, Waivers and Substitutions, Exemptions, Complete Withdrawals, Graduates and Special Notes is maintained as trailer records in the variable length portion of the record.

Field Title	Length	Field Description
I. D. Number	10	Social Security Number. This is the key field. It is taken from the Application tape when a new record is created. A transaction for a record not on the Grade History File will create a Grade History record if a matching I.D. Number is found on the Application Tape. It can not be changed. It can only be deleted. When deleted, the complete record is removed from the file. A notation is generated on a control report for each deletion.
Student Name	21	This field is also taken from the Application tape when a record is created. It can not be changed or deleted. It is used for control purposes only. When generating reports, the Name field in the Application Tape is copied and used.
Campus	1	This field is also taken from the Application tape when a record is created. It can not be changed or deleted. It is used for control purposes only. When generating reports, the Campus field in the Application tape is copied and used.

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Birth Date	6	This field is also taken from the Application tape when a record is created. It can not be changed or deleted. It is used for control purposes only. When generating reports, the Birth Date field in the Application tape is copied and used.
Date Processed	6	This is a computer generated field. It may be used as a control to extract specific records for printing.
Second Record	1	This is a computer generated field. It is set when more than 60 trailer records, exist for a given student.
Current Quality Point Average	3	This is a computer generated field. It is re-computed when any type of transaction is processed.
Current Hours Attempted	3	This is a computer generated field. It is re-computed when any type of transaction is processed.
Current Hours Earned	3	This is a computer generated field. It is re-computed when any type of transaction is processed.
Current Quality Points	3	This is a computer generated field. It is re-computed when any type of transaction is processed.
Cumulative Quality Point Average	3	This is a computer generated field. It is re-computed when any type of transaction is processed.
Cumulative Hours Attempted	3	This is a computer generated field. It is re-computed when any type of transaction is processed.

| Cumulative Hours Earned | 3 | This is a computer generated field. It is re-computed when any type of transaction is processed. |
| Cumulative Quality Points | 3 | This is a computer generated field. It is re-computed when any type of transaction is processed. |

NOTE: The above mentioned current and cumulative fields represent the status of the students records as of the end of the last semester attended. The normal update run is at the end of each semester when final grades are recorded. If supplemental grade runs are made, the above mentioned fields are updated accordingly.

When a graduation record (certificate or A.A.) is processed, all of the current and cumulative fields are set to zero. This is done to insure action on the part of the Records Office to insure against a student receiving more than one degree without attending the required courses in the new curriculum.

| Academic Status | 1 | This is a computer generated field. It is re-computed when any type of transaction is processed. The codes and descriptions are as follows: |

$\emptyset$ = Clear
1 = Honors-Dean's List
2 = Probation Removed
3 = Missing Grade
4 = Academic Probation
5 = Suspension
6 = Incomplete Grade
7 = Academic Restriction

NOTE: If a missing or incomplete grade is found, the Academic Status will be set and current and cumulative figures will be set to spaces.

| Last Year/Semester Attended | 3 | This is a computer generated field. It is re-computed when any type of transaction is processed. It reflects the year and semester of the last significant transaction (advanced standing, course record, withdrawal, graduation). |
| Verified Record | 1 | This is a computer generated field. It will contain a "V" or a blank. If this field contains a "V", it signifies that one or more transactions has been processed against this record and or that the student re-enrolled since spring, '72, and the record has been verified. If it is blank, it signifies that no transactions |

Cumulative Hours Earned Not Including Missing/Incomplete Grades	3	This is a computer generated field. It is re-computed when any type of transaction is processed. It contains the total number of hours earned by the student not including courses with missing or incomplete grades. This field is used as a registration priority for early registration process.
Number of Trailers	2	This is a computer generated field. It contains the number of trailer records associated with the record. The maximum number of trailer records will be 60.

NOTE: Trailer records are placed in each record using the following sequence:
Course Year
Course Semester
Catalog Number.

TRANSFER COLLEGE TRAILER

Record Code	1	Record code is "∅".
Course Year	2	From ∅∅ to ∅9. Unique for each transfer college. Maximum of 9 colleges.
Course Semester	1	Zero
Years Attended From and To	8	Starting and ending years attended transfer college.
College Name	24	College Name
MCHE College Code	2	Numeric code for Maryland Colleges.

TRANSFER COURSE TRAILER

Record Code	1	Record code is "1".
Course Year	2	Same as code "∅" course year
Semester Year	1	Same as code "∅" course year
Catalog Number	6	Montgomery College catalog number of the accepted transfer course.
Course Title	24	This is a computer generated field. It is the Montgomery College course title taken from the Master Course Disk File.
Semester Hours	2	Number of hours accepted for this course.

| Transfer Grade | 2 | Transfer grade accepted for this course. This field may be blank if the college is accepting a group of courses and calling them electives. |
| C.L.E.P. Indicator | 1 | College Level Examination Program Course. A "%" will indicate a C.L.E.P. course that has been accepted by Montgomery College. |

NORMAL COURSE TRAILER

Record Code	1	Record code is "2".
Course Year	2	Year course was taken.
Course Semester	1	Semester course was taken.

        0 = Summer
        4 = Fall
        5 = Spring

Campus	1	Campus on which course was taken.
Catalog Number	6	Montgomery College catalog number.
Course Title	24	This is a computer generated field. It is the Montgomery College course title taken from the Master Course Disk File according to the course catalog number.
Semester Hours	2	This is a computer generated field. It is taken from the Master Course Disk file.
Grade	2	The grade given for the course.
Repeated Course Code	1	Some courses may not be repeated if the grade in the first course was "C", "B", or "A". The computer generated code is as follows:

        # = included in Q.P.A.
        * = not included in Q.P.A.

| Credit By Exam | 1 | If an examination is given for a course, a non-computable grade of "P" (pass) may be given. It will be noted as follows: |

        % = included in Q.P.A.
        + = not included in Q.P.A.

WAIVER/SUBSTITUTION TRAILER

Record Code	1	Record code is "3"
Course Year	2	User designated year
Course Semester	1	User designated semester

Waived Catalog	6	Catalog Number of course waived from curriculum requirement.
Waived Semester Hours	2	Hours for course waived from curriculum requirement.
Substituted Catalog Number	6	Catalog Number of course substituted in curriculum.
Substituted Semester Hours	2	Hours for course substituted in curriculum.

EXEMPTION TRAILER

Record Code	1	Record Code is "4".
Course Year	2	User designated year.
Course Semester	1	User designated semester.
Catalog Number	6	Catalog Number of exempted course.
Course Title	24	This is a computer generated field. It is taken from the Master Course Disk File according to the catalog number.
Semester Hours	2	This is a computer generated field, unless the course is an elective. The hours are then accepted from the transaction.

VARIABLE MESSAGE TRAILER

Record Code	1	Record Code is "5".
Course Year	2	User designated year.
Course Semester	1	User designated semester.
Catalog Number	6	ZZ9999.
Variable Message	24	Message may contain up to 24 characters.

GRADUATION TRAILER

Record Code	1	Record Code is "6".
Course Year	2	User designated year
Course Semester	1	User designated semester

Catalog Number	6	339999.
Graduation Date	6	Month, day and year of graduation. Entered by user.
Honors Code	1	This is a computer generated field. It will be blank or "H". If the cumulative quality point average is 3.40 or greater, an "H" will be generated.
Cumulative Quality Point Average	3	This is a computer generated field. It is re-computed when a Graduation trailer is processed. The contents of the fixed field Cumulative Quality Point Average are moved into this field and the sending field is blanked out. Courses following the Graduation trailer will generate a new Cumulative Quality Point Average.
Cumulative Hours Attempted	3	Same as Cumulative Quality Point Average Field.
Cumulative Hours Earned	3	Same as Cumulative Quality Point Average Field.
Cumulative Quality Points	3	Same as Cumulative Quality Point Average Field.
Degree Code	1	User designated field. The degree codes are as follows: A = Associate of Arts C = Certificate
Certificate Title	4	User designated field. The certificate codes are as follows: CHIL = Child Care COMP = Computer Operator CORR = Corrections DENT = Dental Assisting FIRE = Fire Science INST = Instructional Aide MEDI = Medical Assistant SECR = Secretarial
Degree Curriculum	2	User designated field. Represents the curriculum number for the curriculum in which the degree was earned.

WITHDRAWAL TRAILER

Record Code	1	Record code is "7".

Course Year	2	User designated year.
Course Semester	1	User designated semester.
Catalog Number	6	339999.
Withdrawal Date	6	Month, Day and Year of withdrawal. Entered by user.
Withdrawal Code	1	User designated field. The codes are as follows: A = Academic V = Voluntary

3. Data Elements for the Curriculum File.

The Curriculum File contains the specific course requirements for each curriculum offered by Montgomery College for the current academic year. In the future, this file will contain the curriculum requirements for a five year period.

The Curriculum File is a fixed length Index Sequential Disk file.

Field Title	Length	Field Description
Delete Code	1	$\emptyset$ = active, 9 = deleted
Curriculum Code	2	A two digit code identifying the curriculum. These codes are compatable with the Admissions file curriculum codes.
Update Code	2	The code number $\emptyset\emptyset$ designates the most current curriculum.
Sequence Number	3	This is a computer generated field. It is an assending number starting at zero. Zero represents a header record that contain the total number of hours required in the curriculum.
Curriculum Catalog Number	6	The Montgomery College catalog number of the course required in the curriculum.
First Old Catalog Number	6	This is a computer generated field. The catalog number is validated against the Master Course Disk file. At that point a search is made checking for courses that the current course has replaced. If old courses are found, they are placed in the First Old Catalog Number and the Second Old Catalog Number.

Second Old Catalog Number	6	See the First Old Catalog Number Field description.
Semester Hours	2	This is a computer generated field. It is taken from the Master Course Disk file.
Logical Code	1	This code describes the relationship between this record and the following record. If the code is blank, no relationship exists. If the code is "A" both this course and the next course are required. If the code is "O", either this course or the next course are dequired.
Program Completion Index (P.C.I.) Code	1	Code describing a career program course within a career curriculum for Institutional Research classification. Blank or "X".
Semester Sequence	1	The Curriculum File records are copied from the catalog in semester sequence. This code represents the semester (A = first, B = second, C = third, D = fourth).
Course Sequence	2	This number represents the sequence of the course within a semester.
Curriculum Started	3	The first two digits are the year and the last digit is the semester.
Curriculum Ended	3	The first two digits are the year and the last digit is the semester.
Total Hours	3	This field represents the total required hours in the curriculum. It is only used when the Sequence Number field is equal to zero.

4. Data Elements for the Master Course File.

The Master Course File contains complete records for all courses that have been offered at Montgomery College since Fall, 1947.

Field Title	Length	Field Description
Delete Code	1	$\emptyset$ = active, 9 = deleted
Catalog Number	6	The current Montgomery College catalog number.
Update Code	2	This is a computer generated field. A code designating the most current Catalog Number. $\emptyset\emptyset$ represents the most current, $\emptyset 1$ next current, etc.
Course Title	24	The current Montgomery College catalog course title.
Department Number	8	This field contains four 2 digit fields. Each field represents a campus. The contents of that field represent the department on that campus that offeres the course.
Semester Hours	3	The number of credit hours given for this course. This field has one decimal place to to allow for ½ credit courses.
State Load Hours	3	The number of load hours for this course as reported to the State. This field has one decimal place to allow for ½ credit courses.
Available From	3	The year and semester when the course was first offered.
Available to	3	The year and semester when the course was last offered. Current courses have the code of "995".
Last Offered	3	The year and semester when the course was actually last offered. The Available To field usually extends to the end of the academic year (Spring).

| Old Catalog Number | 6 | This field points to the course that this course replaced. It will be blank if no course has been replaced. |

| New Catalog Number | 6 | This field points to the course that replaced this course. If no new course is offered, this field will be blank. |

| Occupation Code | 1 | Code describing type of course for Institutional Research classification. Blank = transfer, "2" = career |

| H.E.G.I.S. Code | 4 | Code describing type of course for State Board for community colleges. |

| Course Type | 1 | Code describing the method used to present the course. |

0 = Normal course/grade
1 = Discussion/grade
2 = Lecture/grade
3 = Discussion & Lecture/grade
4 = Lecture & Lab/grade
5 = Lecture/no grade
6 = Lab/no grade
7 = Discussion/no grade
8 = Discussion & Lecture/no grade

The code is carried in the record. The record contains nine separate data areas. Each area contains the following data for its type:

Contact Hours
Equivalent Hours
Credit Division Hours

One or more areas may be used for any given course.

| Contact Hours | 3 | This is a three digit field that occurs ten times. It has one decimal place to allow for ½ hour periods. It is primarily used for Faculty Load purposes. It is the sum of the credit division hours and contact hours divided by 2. |

| Credit Division | 3 | This is a three digit field that occurs ten times. It has one decimal place to allow for ½ hour periods. This is used for lab and discussion type courses which have no credit hours for the student record. This is also established for faculty load and unit cost analysis proposals. |

NOTE: Every course will have a type "∅" entry for the total number of Contact, Equivalent and Credit Division Hours (EN1∅1 ∅3.∅ ∅3.∅ ∅3.∅). The total of all other combinations used must equal the type "O" figures:

```
BI1∅1  ∅  ∅6.∅  ∅5.∅   ∅4.∅
       2  ∅2.∅  ∅1.5   ∅1.∅
       6  ∅4.∅  ∅3.5   ∅3.∅
```

E   Reports

During each semester, reports will be generated that show the changes
that have been made to students records and the results of those
changes.

These reports are as follows:

    Permanent Record Card
    Grade Mailers
    Advisor Report
    Official Final Grades
    Graduation Checkout

1.   Permanent Record Card - SGØ11

    There is a one (1) part report that is printed whenever a change is
    made to the students record. The change may be an Advanced Standing,
    Grade Change or Correction, Complete Withdrawal, Graduate Notation,
    Special Notation, Supplemental Grade or Final Grade.

    The report is printed in student name alphabetical sequence by
    campus. It is then bursted and sent·to the reporting campus
    records office.

    When the campus Records Office receives the report, each Permanent
    Record Card must be checked against the files for an existing
    Permanent Record Card. If no matching card is found, notify the
    campus at which the student last attended and request a transfer
    of records. If a matching card is found, scan and compare both
    cards for errors. If none are found, insert the new card into the
    file and destroy the old card. If an error is found, research and
    correct the error and submit the corrections for processing.

01/06/74

DATE ENTERED
08 28 72   09 14 54   M   CITY HIGH WHEATON, MD

DEPT			GRADE		QUAL PTS
		FALL 1972			
BA 101	INTRO TO BUSINESS	3			
EN 100	TECH OF READ + WRTG I	1			
HE 100	PRIN HEALTHIER LIVING	1			
MA 112	INTRO COLLEGE MATH I	3			
SD 100	FUNDAMENTALS OF SPEECH	3			
SF 100	SEMINAR FRESHMEN	1			
		SPRING 1973			
EC 103	ECONOMIC DEVELOPMENT	3	A		
EN 102	TECH OF READ + WRTG II	3	C		
HA 201	AMER HIST 1492-1865	3	B		
PE 017	PERSONAL DEVELOPMENT	1	B		
		FALL 1973			
AC 201	PRINC OF ACCOUNTING I	4	A		
BI 101	GENERAL BIOLOGY I		R		
EC 201	PRINC OF ECONOMICS I	3	B		
EN 200	INTRO TO WORLD LIT I	3	B		
MA 208	ELEM CALCULUS I	1	A		

BOWLING
QUALITY POINT AVERAGE
CURRENT SEMESTER 3.45   11   11   38
CUMULATIVE 3.08   38   38   117

HONORS - DEANS LIST

GRADE		QUAL PTS
I INCOMPLETE		NONE
X IN PROGRESS		NONE
P AUDIT		NONE
S SATISFACTORY		NONE
U UNSATISFACTORY		NONE
F PASS		NONE

= CREDIT BY EXAMINATION INCLUDED IN CUMULATIVE AVERAGE
= CREDIT BY EXAMINATION NOT INCLUDED IN CUMULATIVE AVERAGE

C = OFF CAMPUS

23

Grade Mailers - SGØ11

This is a two (2) part report which is generated usually for Final and Supplemental Grades only. Generation at other times is up to the discretion of each campus records office.

The report is printed in student name alphabetical sequence by campus. Students who are deliquent for one reason or another are printed in a separate group following the main group by campus. After the carbons are removed, the report is bursted and sent out to the reporting campus records office.

The first copy of this report is used as a worksheet by the Records Office. It is placed in the students folder along with other personal data. The second copy of this report is mailed to the student in the form of a mailer. The grade Mailers have the return address of the reporting campus, which directs undeliverable Grade Mailers back to the correct campus.

3. Advisor Report - SC010

    This is a one 1) part report and is usually printed for Final and
    Supplemental Grades only. Generation at other times is up to the
    discretion of each campus records office.

    The report is printed in student name alphabetical sequence by
    advisor department by campus. It is then sent to the reporting
    campus records office.

PAGE 1

CAMPUS ADVISOR

STUDENT PERSONNEL

COURSE NO	COURSE TITLE	HOURS ATT SEM GRD PTS			
	Courses transferred from				
	UNIV OF MARYLAND				
	1966-1967				
EN 101	TECH OF RONG + WRTG 1	3		A	
EN ELE	GENERAL ELECTIVES	2		B	
MA ELE	MATH, ELECTIVES	3		A	
PS 101	AMERICAN GOVERNMENT	3		B	
SS ELE	SOCIAL SCIEN. ELECTIVES	3		B	
	TOTAL SEM. HRS. ACCEPTED	16			
	FALL 1973				
PY 201	GEN PSYCHOLOGY	3	3	A	12
SO 101	INTRO SOCIOLOGY	3	3	B	9
	QUALITY POINT AVERAGE - TOTALS				
	CURRENT SEMESTER 3.50	6	6		21
	CUMULATIVE 3.50	6	6		21
	HONORS - DEAN'S LIST				

Final Final Grades - SS156

This is a two sequence report that is only printed when processing Final Grades. The first sequence uses a two 2) part form and the second sequence uses a one (1) part form.

The first sequence is printed in student name alphabetical sequence by catalog course) number by campus. The report is bursted and two copies are sent to the instructor. If the grades are correct, he signs the original and returns it to the records office, keeping the carbon copy for his own records. If the grades are not correct, he makes the corrections, signs the original and returns it to the records office and keeps the carbon copy for his own record.

The second sequence is printed in student name alphabetical sequence or instructor name alphabetical sequence by campus. The report is bursted and sent to the records office. This copy is used first of all as a control copy for receiving the instructors signed copies of the grade report. If an instructor does not return his set of the grade report, the control copy is placed in the grade book until a duplicate official set can be rerun and signed. The second sequence copy is also used for supplemental grade processing. Grade changes are made to both the official and control grade reports. The control copies with changes are selected and sent to Data Systems for processing at the end of each supplemental grade period. By using the control copies, the official reports remains in the records office, eliminating the possibility of damage or loss in transit.

MONTGOMERY COLLEGE
OFFICIAL FINAL GRADES

COURSE NUMBER	SECT.	SEM. HRS.	INSTRUCTOR

ID NUMBER	NAME OF STUDENT	GRADE	REMARKS

SUMMARY OF GRADES

	A	B	C	D	F	I	R	W	S		X	MSSG	
TOTAL													

SEE SEPARATE SHEET FOR INSTRUCTIONS

5   Graduation Checkout - SG012

This is a one (1) part report and is usually printed for Graduation
Checkout only. Generation at other times is up to the discretion
of each campus records office.

This report combines data from the Current Semester Section File
and the Grade History File. Students are selected for this report
if the combined total of Cumulative Earned Hours, Advanced Standing
Hours and Current Load Hours equal or exceed 60. The report is
printed on student name alphabetical sequence by campus. It is
sent directly to the reporting campus records office.

STUDENT NAME   NUMBER   O 1F   -O ELEMENTARY
ADDRESS   MATHEMATICS
                          0252   G   CUMULATIVE AVERAGE TO DATE - 2.82
        AT - 7/74   CUMULATIVE EARNED HOURS - 060
                                        ADVANCE STANDING HOURS - 0
                                          CURRENT EARNED HOURS - 17

                          TAKEN   IN PROGRESS

	3	3
	3	3
		1
X		
4	4	
3	3	X
3	3	
3	3	
3	1	X
4	3	
4	4	
2	2	
3	3	
4	4	
3	1	
3	3	
4	4	
3	3	X
3	3	X
4	4	X
1	1	
3	3	X
2	2	

ALL DEGREE REQUIREMENTS HAVE BEEN SATISIFIED

                                        R EN202   3
                                        P HS202   3
                                        P MA131   4
                                        P PE011   1
                                        R PY215   3
                                        P SO101   3

A.   Input Forms, Controls and File Maintenance

The editing criteria listed with each item will be checked by the
computer or the Data Systems control clerk. Whenever possible, error
corrections will be made over the telephone between the Data Systems
control clerk and the Records Office personnel.

1.   When students are given credit for courses taken at another
     educational institution, the course that was taken and the
     Montgomery College equivalent are to be entered on the Evalua-
     tion of Transfer Courses Form. This is a three copy form and
     the distribution of the form after completion is as follows:

          White Copy   -   Student
          Yellow Copy   -   Data Systems
          Pink Copy   -   Student Folder

     The items on the form to be completed by the Records Office are
     described in the following paragraphs:

     a.   I.D. Number: Student's Social Security Number. The Computer
          Programs will verify this number against the Application Tape
          Record and if the Student I.D. Number does not appear on the
          Application Tape, this transaction will be rejected to be
          processed.

     b.   Name: Student's name, used for identification and reference
          purposes. On the Grade History File, the name is picked up
          from the Application Tape. If the student changes his name,
          only one name change is required to reflect the change on all
          reports.

     c.   M.C. Curriculum: The student's major, used for reference pur-
          poses. Data Systems does not use this data.

     d.   Transfer College Information:

          1.   Type: Always use '1' on this form.

          2.   College Code: This is used to indicate the number of the
               transferred college when a student has attended more than
               one college prior to MC. Enter '∅' if this is the student's
               first transferred college, '1' if it is the second transferred
               college and so on. Look up the Permanent Record Card or
               Student Folder if you do not recognize what number you should
               fill in here. On the Permanent Record Card, the form number
               is printed besides the College name and you should always
               use the next consecutive number here if there is already some
               transferred College filed before.

3. Attended: The year attended from and to at the transfer college should be entered here. If less than one year is attended or have multiple year attended, fill the year under 'to' item and leave 'from' blank.

4. Credits Accepted From: Enter transfer(ed) college name, note a maximum of thirty characters are allowed for the name. Abbreviate the name to characters when the college name exceeds the maximum.

5. Code: A 'Ø' is preprinted for Data Systems use only.

e. Course Information

1. Course Number: Enter transfer college course number. This is used for reference purposes only.

2. Course Title: Enter transfer college course title. This is used for reference purposes only.

3. Semester Hours: Enter transfer college course semester hours. This is used for reference purpose only.

4. Grade: Enter transfer college course grade. Only A, B, C or P grade will be accepted by the program. However, this is not the required item of data. Leave it blank whenever necessary.

5. Type: Always fill in '1'.

6. Catalog Number: The accepted equivalent MC Course Number. The computer program will verify the course number against the Master Course File to insure the correct course number.

7. Semester Hours: If the transfer college course semester hours is equal to or greater than the MC Course Semester Hours (the latest catalog), enter MC Course Semester Hours. When transfer college course semester hours is less than MC Semester. Hours enter transfer college course semester hours. It is at the discretion of the Records Office when the transfer course semester hours is greater than MC Semester Hours to accept the difference as an elective course (use proper electives abbreviation as an addition line with the differences as semester hours) or to ignore the differences of the hours. The computer program is verifying the semester hours here against the course master record and only accepts this transaction if the hours is less than or equal to a code '1' is preprinted for Data Systems use.

f. After completion of all above information, add up the total semester hours accepted by MC and enter this on the line 'Total Semester Hours' under Semester Hours Column. This is used for control purpose to verify all the proper courses and semester

hours are processed. When this total hours does not agree with the total of the course semester hours, the computer program will reject all transactions on this form.

g. Enter Date, Campus and sign by Registrar or his designated person.

h. Special Notes:

1.

Catalog	Description	Catalog	Description
AC ELE	Accounting	HU ELE	Humanities
AR ELE	Art	LG ELE	Language
BI ELE	Biology	LI ELE	Literature
CH ELE	Chemistry	MA ELE	Math
CJ ELE	Criminal Justice	PE ELE	Physical Education
CS ELE	Computer Science	PY ELE	Psychology
FS ELE	Fire Science	SI ELE	Science
GN ELE	General	SS ELE	Social Science
HE ELE	Health	TD ELE	Tech. Drafting
HS ELE	History	VT ELE	Visual Tech.

2. If electives are entered, the semester hour must not be greater than nine (9) for each elective.

3. Duplicate electives are acceptable. No other duplicate catalog number for a given transfer college will be accepted.

OFFICE OF THE CAMPUS REGISTRAR

ID NUMBER 1 10 NAME

MC CURRICULUM

TYPE	COLL CODE	ATTENDED FROM	ATTENDED TO	COLLEGE ATTENDED		CODE
17	18	19 22	23 26	27 50		80
1						0

			SEM HRS	MONTGOMERY COLLEGE					
COURSE NUMBER	COURSE TITLE		SEM HRS	TYPE	COLL CODE	CATALOG NUMBER	SEM HRS	GRADE	CLEP	CODE

COURSE NUMBER	COURSE TITLE	SEM HRS	TYPE	COLL CODE	CATALOG NUMBER	SEM HRS	GRADE	CLEP	CODE
			17	18	19 24	25 26	27 28	29	80
			1						1
			1						1
			1						1
			1						1
			1						1
			1						1
			1						1
			1						1
			1						1
			1						1
			1						1

TYPE	COLL CODE		SEM HRS	CODE
17	18		75 76	80
4		TOTAL TRANSFER HOURS FOR THIS COLLEGE		1

DATE _____ CAMPUS _____ REGISTRAR _____

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2. Correction of Transfer Courses

After students have been given credit for courses taken at another institution Evaluation of Transfer Credit), it may be necessary to change, delete or add more courses accepted for the college which was previously entered on the Evaluation of Transfer Course Form. This may be accomplished through the use of the Correction of Transfer Courses Form. Before filling out the form, be sure you have the students Permanent Record Card. Enter the students I.D. Number and name from the P.R. Card. This will significantly decrease the possibility of changing the wrong students record.

a. Transfer College Information: This area is used for changing the transfer college name or deleting the college. When the transfer college is requested for deletion, all the corresponding courses are deleted from the record at the same time. If for some reason, the year attended was incorrect, you must file a deletion of this college via this form and file an 'Evaluation of Transfer Courses' form to add the college and courses back for the corrected years attended.

   1. Type - Enter '2' for change, '3' for delete

   2. College Code - Enter the college code from the Permanent Record Card (it is printed on left side of the transfer college name).

   3. Attended - 'To' column must be filled. Use the years attended printed on the P.R. Card. 'From' column may be blank.

   4. College Attended - If you are changing the college name, enter the new name here. Abbreviate the name if it exceeds the maximum characters allowed in the system (24 characters). If you are deleting the college, it is not required to fill in the college name. However, for your own reference purpose, it is better to fill in the name.

   5. Code - '0' code is preprinted for Data Systems use.

b. Transfer Course Information:

   1. Type - Enter '1' for add, '2' for change, '3' for delete

   2. College Code - Enter the college code from P.R. Card for the college you are correcting.

   3. Course Title - This field is not a required field by Data Systems. You may use this area to enter transfer college and title for reference purposes.

   4. Catalog Number - MC Catalog Number.

5. Sem. Hrs. - See 'Sem Hrs' instruction for ' Evaluation
    of Transfer Courses'`form.

6. Grade - See 'Grade' instruction for 'Evaluation of Transfer
    Courses' form.

7. After all transactions are entered on the form, make the
    corrections on the P.R. Card. Add up the total number
    of semester hours now on the P.R. Card and enter that total
    in TOTAL TRANSFER HOURS FOR THIS STUDENT. This total must
    include ALL transfer courses. The computer program is
    verifying these hours against the total hours in record after
    updating and if they are not alike, all transactions on this
    form will be rejected.

I D. NUMBER (1-10) _____   NAME _____

Use this area to change (Type 2) a college name or to remove (Type 3) a college
name and all corresponding courses ONLY.

TYPE	COLL. CODE	ATTENDED		COLLEGE ATTENDED	CODE
		FROM	TO		
17	18	19-22	23-26	27-50	- 80

Use this area to change (Type 2) a transfer course grade or to remove (Type 3)
specific transfer courses.

TYPE	COLL. CODE	COURSE TITLE	CATALOG NUMBER	SEM HRS	GRADE	CLEP	CODE
17	18		19-24	25-26	27-28	29	80
							1
							1
							1
							1
							1
							1
							1
							1
							1
							1
							1

TYPE	COLL CODE		SEM. HRS.	CODE
17	18		75-76	80
3		NEW TOTAL TRANSFER HOURS FOR THIS STUDENT		1

DATE	CAMPUS	REGISTRAR	
		38	11/74

3. Grade History Corrections

This form is used to correct courses, grades or repeat flags for the courses taken at MC. However, since the first supplemental grade run usually involves a large volume of transactions, Data Systems will accept the 'Official Final Grade Report' as the correction form. The 2nd and 3rd supplemental grades are still required to be filled in on this form.

Please hold all forms for the Bi-weekly processing run. Individual field descriptions are as follows

a. I.D. Number - Student's Social Security Number. If room follows, student's last name may be entered for your reference. Required for all entries.

b. Type of transaction - Enter '1' for add a course, '2' for change grade or repeat code, '3' for delete the course. Required for all entries

c. Catalog Number - Catalog Number of course to be added, changed or deleted. Required for all entries. Include the campus in the Catalog Number. The Master Course File contains the semesters and years in which courses are considered active. The Catalog Number, Semester and Year will be combined and checked for validity against the Master Course File. If no match can be found, it will be treated as an error. If you are doubtful as to the semester and year in which a course has been offered, consult your Master Course File listing.

d. Semester Hours - Semester hours of course to be added, changed or deleted. Required for all entries.

e. Semester - Semester of course to be added, changed or deleted. SUMMER, FALL, SPRING). Required for all entries.

f. Year - Year of course to be added, changed or deleted. Calendar Year Required for all entries.

g. Grade - Required for all addes and changes. Valid grades are A, B,C,D,F,W,WF,WF,S,U,R,I,X,P. No missing grade is accepted.

h. Repeat - Repeat Code. Enter an 'r' for a repeated course not to be included in Cumulative Quality Point Average. Enter a '#' for a repeated course to be included in Cumulative Quality Point Average. To remove the repeat code from a course, enter a 'N'. When deleting a repeated course (latest course taken), an entry must be made for the course that was repeated (prior course taken) removing the repeated course notation. However, according to academic regulations, all courses repeated after Fall, 1971 are automatically treated as repeated courses. The program will create the repeat code automatically and in these cases, the 'N' will be ignored.

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- Old Grade - Old Grade field is to be used when changing a grade in a course where more than one course with the same catalog number exists in the same year and semester or when deleting a course. Valid only for change or delete. Whenever grades are changed, the Old Grade field will be checked first. If this field contains a grade, the computer will then go to the exact semester, year, course and grade to be changed and correct it with the contents of the Grade Field. If this field does not contain a grade, the computer will then go to the specified field, semester, year and catalog number. If identical courses exists in the specified semester and year, the computer will not make the grade change. You will be notified of the duplication of courses. If no duplicated courses exist, the grade will be corrected with the contents of the Grade field. When deleting a repeated course (latest course taken), an entry must be made for the course that was repeated (prior course taken) removing the repeated course notation.

- New Cum. Avg. - New Cumulative Quality Point Average. After all transactions are processed for an individual student, a new Current Semester and Cumulative Quality Point Average may be computed by hand and entered here. The computer generated Cumulative Average will be checked with the Registrar's Cumulative Average. If a variance occurs, the transactions will not be posted to the student's record. If no cumulative average is supplied, no variance check will be made. If more than one entry (add, change, delete) is made for one student, the New Cum. Avg. need only be entered once. This is used for control purposes to insure that the correct data is processed.

k. New Ern. Hrs. - New Earned Hours. While generating a new Quality Point Average, the computer will also generate a new Total Earned Hours. The computer generated Total Earned Hours will be checked with the Registrar's Total Earned Hours. If a variance occurs, the transactions will not be posted to the student's record. If no total earned hours is supplied, no variance check will be made. If more than one entry is made for one student, this field need only be entered once (with any entry).

l. Enter page number on the top of the form, Fill in the date, campus and sign your name down at the bottom.

It should be noted that the entry of the New Cumulative and New Earned Hours are optional to the Records Office. If these fields are not entered, there will no longer exist a capability to check for erroneously entered I.D. Numbers. Data Systems cannot, therefore, be responsible for erroneous posting of Grade History Changes.

MONTGOMERY COLLEGE

GRADE HISTORY CORRECTIONS

I D NUMBER NAME 1-10	T Y P E 17	CATALOG NUMBER 18 - 25	SEM HRS. 26-27	SEMESTER 28-33	YEAR 34-35	GRADE 36-37	REPEAT 38	OLD GRADE 39-40	CODE 79-80	T Y P E 17	NEW CUM AVG 41-43	NEW ERN HRS 44-46	NEW CODE 80
									A 2				2
									B 2	4			2
									C 2	4			2
									D 2	4			2
									E 2	4			2
									F 2	4			2
									G 2	4			2
									H 2	4			2
									I 2	4			2
									J 2	4			2
									K 2	4			2

ADD = 1   CHANGE = 2
DELETE = 3

DATE _____   CAMPUS _____   REGISTRAR _____

11/74

4. Supplemental Grades

    At the end of each semester, Official Final Grade Reports are printed
    for all courses that have been offered. These reports are printed in
    two separate sequences:

    1. Instructor Name
    2. Course Number

    The Instructor Name Reports are two-part forms (white and pink). The
    white report is signed by the instructor and returned. The Course
    Number Reports are one-part forms (green). These reports stay in the
    Records Office.

    Approximately thirty (30) days from the end of each semester, supplemental
    grade reports are printed for those students who have made up Incom-
    plete Grades or have had a grade change for one reason or another.
    The Records Office will send these grade corrections and only the sheet
    with corrections to Data Systems on the green Final Grade Reports.
    All grade changes must be entered in the column next to the 'GRADE'
    column. Please use red ink for grade changes.

    The Grade History File does not carry the section number of the course
    in which the student was enrolled. If a student was given an 'F' in
    EN101, Section 5 and is now given a 'B' in EN101, Section 1, the only
    change required is the grade change from 'F' to 'B'.

    Two more supplemental grade runs will be made at intervals of thirty
    (30) days each. All grade changes after the initial supplemented run
    must be entered on Grade History Correction Forms. These forms must
    be marked "Supplemental Grades" for separate processing since the
    Advisor Report and Grade Mailers must also be printed.

MONTGOMERY COLLEGE
OFFICIAL FINAL GRADES

COURSE NUMBER	SECT.	SEM HRS	INSTRUCTOR

ID NUMBER	NAME OF STUDENT	GRADE	REMARKS

INSTRUCTOR'S SIGNATURE _____

SUMMARY OF GRADES

	A	B	C	D	F	I	R	W	S	U	X	MISSING	TOTAL
TOTAL													

SEE SEPARATE SHEET FOR INSTRUCTIONS

5. Credit by Examination

Starting at the end of the Fall 1972 semester, Data Systems will receive from the Registrar's Office, on each campus, Application for Credit by Examination forms. As these forms are received, they are to be processed through the Grade History System. Permanent Record Cards and Grade Mailers will be printed and returned to the respe▓▓e campus.

The data input forms will be the Grade History Correction forms. The following fields will be coded:

I.D. Number	= 2-10
Type (1)	= 17
Catalog Number	= 18-25
Semester Hours	= 26
Semester	= 27-32
Year	= 33-34
Grade (A,B,C or P)	= 36
Type of Exam	= 37 ("%" if A,B or C, "+" if P)
Page & Batch	= 77-79
Card Code (2)	= 80

These forms may be processed with normal Grade History updates.

● Credit by Examination Courese may be deleted from the Grade History File by punching a three (3) in the type field and processing the transaction with normal Grade History updates.

MONTGOMERY COLLEGE	APPLICATION FOR CREDIT BY EXAMINATION

INSTRUCTIONS: STUDENT FILLS OUT FIRST TWO LINES ONLY. REASONS FOR DISAPPROVAL WILL BE PLACED UNDER REMARKS.
INSTRUCTOR NOTES UNDER "REMARKS" PROPOSED TIME, DATE, AND PLACE OF EXAMINATION.
USE BALL POINT PEN.

STUDENT'S SOCIAL SECURITY NUMBER	STUDENT'S NAME		
	LAST	FIRST	

CATALOG NUMBER	COURSE TITLE		CREDIT HOURS

INSTRUCTOR'S APPROVAL	DATE	DEPARTMENT CHAIRMAN'S APPROVAL	DATE

REMARKS _____

CASHIER (FEE PAID)	SECTION BELOW WILL BE COMPLETED AFTER EXAMINATION		
	STUDENT'S SIGNATURE (SIGN IN PRESENCE OF INSTRUCTOR)	INSTRUCTOR'S SIGNATURE	GRADE
CASH RECEIPT NUMBER		SIGNATURE OF REGISTRAR/ DIRECTOR OF ADMISSIONS AND RECORDS	

DISTRIBUTION: WHITE, CASHIER, GOLD, DATA SYSTEMS, PINK, STUDENT, BLUE, INSTRUCTOR, YELLOW, STUDENT'S FILE
MC FORM 6 216 (6/15/72)

6. Course Waiver/Substitution or Exemption

    This form is to be used to record Course Waiver/Substitution or
    Exemptions of required courses in a student's curriculum. Courses
    may be Waived/Substituted when a student changes curriculums.-
    Courses may be Exempted when a student reaches a specified age or
    returns from military service. This data may be added to the
    student's file or deleted from the student's file. It may not be
    changed on the student's file. Before filling out the form, be sure
    you have the student Permanent Record Card. Enter the student's
    I.D. Number, name and curriculum from the P. R. Card. This will
    significantly decrease the possibility of changing the wrong students
    record.

    a. Type - Enter "1" for add or "3" for delete,

    b. Catalog Number - The Catalog number of the course to be Waived
        or Exempted. It will be checked against the Master Course Disk
        File for validity.

    c. Course Title - Enter the title for your own information.

    d. Semester Hours - The Semester Hours of the course to be Waived
        or Exempted.

    e. Course Title - Enter the title for your own information.

    f. Semester Hours - The Semester Hours of the course to be sub-
        stituted.

    g. Code - Enter "3" for Waiver/Substitution or "4" for Exemption.

    h. Date - Enter the semester and year in which you are entering this
        transaction. This is most important in case you need to return
        and delete this transaction.

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MONTGOMERY COLLEGE

COURSE WAIVER SUBSTITUTION OR EXEMPTION

TO OFFICE OF THE REGISTRAR   FROM

ID NUMBER (1 10)   NAME   CURRICULUM   DATE   AGE OF

THIS FORM IS TO BE USED FOR COURSE WAIVER, SUBSTITUTION OR EXEMPTION OF REQUIRED COURSES IN A CURRICULUM. IF WISHING TO
COMPLETE THE CHECK OF REQUIRED AND ELECTIVE SUBJECTS FOR GRADUATION, BOTH COPIES OF THIS FORM MUST BE RETURNED TO THE OFFICE
OF THE REGISTRAR. PLEASE USE BALL POINT PEN

WAIVER EXEMPTION COURSE / SUBSTITUTED COURSE

TYPE	CATALOG NUMBER	TITLE	SEM HRS	CATALOG NUMBER	TITLE	SEM HRS	CODE
17	18 23		24 25	26 31		32 33	80

CODE

WAIVER/SUBSTITUTION - 3
EXEMPTION - 4

TYPE

ADD - 1
DELETE - 3

ADVISOR'S SIGNATURE
(REQUIRED)

ADVISOR'S NOTES

White Copy Student Folder —   Yellow Copy Data Systems

SEMESTER (69 /4)   YEAR (/5 76)

MC Form 9 723 (11 25/74) 2M

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7. Retroactive Graduate/Complete Withdrawal

This form is used to add graduation or withdrawal records to the student's Grade History record. Before filling out the form, be sure you have the student's Permanent Record Card. Enter the I.D. Number and Name from the P.R. Card. This will significantly decrease the possibility of changing the wrong student's record.

a. Type - Enter "1" for add, "2" for change, "3" for delete.

b. Effective Date - Enter the Month, Day and Year (MM/DD/YY) of the effective date of the graduation or withdrawal.

c. Withdrawal Code - Enter "A" for academic, "V" for voluntary if withdrawal; otherwise leave blank.

d. Degree Code - Enter "A" for Associate of Arts, "C" for Certificate if graduate; otherwise leave blank.

e. Semester and Year - Enter the semester (Spring, Summer or Fall) and year of the graduation or withdrawal.

f. Certificate Title - Enter the title of the certificate program or the code number of the curriculum.

> Child Care Aide
> Computer Operator
> Corrections
> Dental Assisting
> Fire Science
> Instructional Aide
> Medical Assistant
> Secretarial

g. Code - Enter "6" for graduate, "7" for withdrawal.

In the past, Data Systems has prepared listings of students who have withdrawn during the first few weeks of classes and students who are tentative graduates for verification by the Records Office. These listings may be used as input forms replacing the Graduate/Withdrawal forms.

I.D. NUMBER 1-10	TYPE 17	EFFECTIVE DATE 18-23	C/W CODE 24	DEGREE CODE 24	SEMESTER 27-32	YEAR 33-34	CERTIFICATE TITLE OR CURRICULUM NUMBER 35-51	STUDENT NAME 52-72	CODE 79-80
	17	18-23	24	24	27-32	33-34	35-51	52-72	79-80
									A
									B
									C
									D
									E
									F
									G
									H
									I
									J
									K
									L
									M
									N

Add = 1   Voluntary = V   Assoc. of Arts = A
Change = 2   Academic = A   Certificate = C
Delete = 3

Graduate = 6
C/W = 7

DATE   CAMPUS   REGISTRAR

Record of Transcript Sent

The form is used to record the fact that a student has requested and received his free transcript of credit. When the transcript is sent out, a notation is made on the Permanent Record Card and an entry is made on the Record of Transcript Sent form. A code letter "X" will be printed in the upper right hand corner of the Permanent Record Card for each student who has been noted as receiving a transcript. The code will be printed each time a Permanent Record Card is generated.

a. I.D. Number and Name - Enter the students I.D. Number and Name from the Permanent Record Card.

b. Date - Enter the Month, Day and Year (MM/DD/YY) on which the transcript was sent.

Montgomery College	RECORD OF TRANSCRIPTS SENT		Page _____ of _____			
I. D. NUMBER	NAME	FIELD	CODE	ENTRIES	DATE	CODE
1 - 10	11 - 19	20 - 21	22	72 - 73	74 - 79	80
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X
		33	X	01		X

CAMPUS   REGISTRAR

6/72

B. Processing Schedule

Due to the wide variety of transactions processed by the system, the Grade History file will be updated weekly. The records office should control the Flow of transactions as follows:

    Course Waiver/Substitution and Course Exemption Forms will be submitted one week

    All other forms will be submitted the following week.

Processing should be separated since Waiver/Substitution and Exemption Forms do not require new Permanent Record Cards and Grade Mailers.

The Curriculum File and the Master Course File will be updated whenever required (usually once each semester and at the beginning of the academic year).

    1. Weekly

        a. All Grade History input received by 3 00 P.M on Monday will be scheduled for processing that week.
        b. All keypunching for data received by 3:00 P M on Monday will be completed by 4:00 P.M. Wednesday.
        c. First computer check of Grade History input (edit update) will be scheduled for Wednesday night processing.
        d. Data Systems control clerk checks and corrects errors if possible on Thursday and re-runs edit update.
        e. Actual update process is scheduled for Thursday night processing. This will produce error list, P.R. Cards and Grade Mailers.
        f. Reports are distributed Friday morning.

    2. End of Semester

        End of semester processing will usually be restricted to final grades. The exception to this will be in the spring semester when Graduate data forms must be processed along with final grades. The final grade process will usually take ten (10) days from the day that the final grade forms are delivered to Data Systems.

        Supplemental Grade Processing runs will be scheduled thirty (30) and sixty (60) days after the end of each semester. These runs will be independent of normal weekly processing.

File Maintenance

Master Course Disk File Maintenance

The Master Course File contains information for all courses that have been offered at Montgomery College since Fall, 194_. The file is used for Grade History, Final Grades, Registration, Add Drop and Faculty Load processing. It is important that this file be as accurate and up-to-date as possible. File maintenance situations usually occur when preparing for semester registrations, new courses, or existing course changes, or when preparing for Faculty Load reports, changing credit, contact or equivalent hours. Changes will be made to the Master Course Card Deck which is in turn loaded into the disk for access by the various systems.

The Master Course Card Deck is kept in Catalog Number Sequence. The most recent courses are first, followed by older courses with the same catalog numbers. Each catalog number will have at least one card, code _, which will contain the following data:

    Catalog Number
    Beginning Semester and Year
    Ending Semester and Year
    Course Title
    Campus Departments
    Credit Hours
    State Load Hours
    Last Semester Offered
    Previous Catalog Number
    New Catalog Number
    Occupational Code
    Normal Course Contact, Equivalent and Credit Division Hours.

Each catalog number may have one or two additional cards, code 2 and code 3, which will contain the Contact, Equivalent and Credit Division Hours for the different ways in which the course is offered:

    Discussion Credit
    Lecture Credit
    Discussion & Lecture Credit
    Lecture & Lab Credit
    Lecture No Credit
    Lab No Credit
    Discussion No Credit
    Lab & Discussion No Credit

Whenever possible, Data Systems should be notified when a new course is approved. When this is not possible, an error will occur when building the semester schedule file. In this event, the campus records office must be notified. They will be able to supply the data necessary to prepare a Code 1 card. Data for the different hours (contact, equivalent and credit division must come from the campus academic deans office.

The Beginning, Ending and Last Semester Offered semester and year must be coded as follows:

    Summer = 0
    Fall   = 4
    Spring = 5.

The codes for the 1974-75 academic year would be as follows:

    Summer = 743
    Fall   = 744
    Spring = 745.

A course that was opened in the fall of 1970 and is still open would be coded as follows

    Offered From - 704
    Offered To   - 995

All courses that are currently open will have an Offered To semester and year of 995.

After coding the Catalog Number, Description and Starting and Ending year and semester, assign the appropriate Department Code. This can be done by determining the appropriate department (Math, English, etc.) and checking the department name against the "SDP" Table File. This file will have the corresponding department number.

The Occupational Code will be assigned by Institutional Research. Contact them for the appropriate code (Transfer = 1, Career = 2).

When a large number of changes must be made, they may be made directly on the Master Course Listing. Individual changes may be coded on Course Correction Forms and sent to Data Systems.

MEMORANDUM   DATE: _____

TO: Data Systems

FROM:

SUBJECT: Master Course Disk File Maintenance

Please ADD   the following course
        CHANGE
        DELETE

Catalog Number	Year/Semester Avail. From		Year/Semester Avail. To	Course Title (24 Char.)
2-7	8-9	10	11-12 13	14-37

Rock. Dept.	T.P. Dept.	Course Credit	State Credit	Old Catalog Number	New Catalog Number	HEGIS Code	Occup. Code
38-39	40-41	46-48	49-51	53-58	60-65	66-69	70

Type of Course Offering	Code	Contact Hours	Equivalent Hours	Credit Division Hours
Total Combined Offerings	0			
Discussion/Grade	1			
Lecture/Grade	2			
Dist. & Lect./Grade	3			
Lecture & Lab/Grade	4			
Lecture/No Grade	5			
Lab/No Grade	6			
Discussion/No Grade	7			
Lab & Disc./No Grade	8			

All requests MUST have the Catalog Number, Dates Available and Course Title fields filled in.

When entering Contact Hours, Equivalent Hours, and Credit Division Hours, the sum of codes 1 through 8 must equal code 0. If the course has no special offering (code 1 through 8), enter the hours following code 0.

02/75

2. Curriculum Disk File Maintenance

Each year a new Montgomery College Catalog is printed. This catalog is the official college document listing all curriculums and courses offered at the college for the specified academic year. Data files used by Admission, Registration and Final Grade Procedures must reflect the current curriculums and active courses. These files are the Curriculum Table File (Admissions), Master Course Disk File (Registration and Final Grades) and the Curriculum Disk File (Final Grades). This procedure will deal with the correction and maintenance of the Curriculum Disk File.

When the newly published copy of the catalog is received, match the curriculum title for each curriculum listed on the Curriculum Table File (GU031 Printout) against the catalog curriculums. Write the curriculum number found on the Curriculum Table File printout next to the curriculum title in the catalog. When finished, check back through the catalog for curriculums without numbers. These are new curriculums. Assign a number and identifiable abbreviation to the new curriculum and add them onto the Curriculum Table File. Keep note of these new curriculums, as they must be edited closely when added to the Curriculum Disk File.

After checking for new curriculums, a check must be made of all existing curriculums for additions or deletions of courses within each curriculum. Using the "Dump of Curriculum Check-out Disk" listing, find the matching curriculum code number and begin to check each course. The courses are listed as closely as possibly to the sequence found in the catalog (alphabetic within semester). In some instances, electives were added together to save space when printing the "Course Remaining" area of the Final Grade Reports.

The course by course check must be done very carefully. Each catalog number and semester hour must be checked against each other. If a course has been deleted from a curriculum, draw a line through the catalog number and semester hour on the computer listing. If a course has been added to a curriculum, add the catalog number and semester hour onto the computer listing. Check the Master Course Disk File to make sure that the new course and hours are valid. If they are not, contact the appropriate campus registrar or records office. If the catalog numbers are the same, but the semester hours have been changed, check the Master Course Disk File again. If the hours in the new catalog are not valid, contact the appropriate campus registrar or records office.

As you check through the curriculums, you will see that options are available to the students in selecting which courses they wish to attend. A student may select one of two or two of three or a specified number of hours in a given area (Humanities, Science, Social Science, or Language). These options are handled in the Curriculum File and should be coded as they are found in the catalog. Using the Cartography Curriculum (Transfer) as an example, we will find a variety of options

available to the student. The options of AS101 or GL101 will be coded as follows:

AS101	4 0	(or)
GL101	4	

The grouping of electives, at the bottom of each semester, will be combined and coded as follows:

HUELE	6 0	(or)
SSELE	6 0	(or)
LGELE	6 0	(or)
SIELE	8	

Refer to the Grade History Elective Abbreviations for the proper codes. The option of selecting GE101 or GE102 and GE201 as the first option or selecting GE161 and GE162 as the second option will be coded as follows:

GE101	3 A	(and)
GE201	3 0	(or)
GE102	3 A	(and)
GE201	3 0	(or)
GE161	3 A	(and)
GE162	3	

The three Physical Education electives (PE 10 to 55) will be combined and coded as follows:

PEELE	3

After checking and coding a curriculum, add up the minimum semester hours required and compare the total with the total hours printed at the top of the computer listing. If they do not agree, change the hours on the top of the listing to agree with the total from the catalog. After all curriculums have been checked and corrected, return the listing to Data Systems. The Curriculum Disk Card File will be changed to agree with the corrected listing and a new Curriculum Disk File will be created. A new "Dump of Curriculum Check-out Disk" listing will be printed and saved for any questions that may arise concerning the contents of the Curriculum Disk File.

The new Curriculum Disk File must be ready for Fall final grades of each academic year.

GRADE HISTORY ELECTIVE ABBREVIATIONS

ACELE	Accounting
ARELE	Art
BIELE	Biology
CHELE	Chemistry
CJELE	Criminal Justice
CSELE	Computer Science
FSELE	Fire Science
GNELE	General
HEELE	Health
HSELE	History
HUELE	Humanities
LGELE	Language
LIELE	Literature
MAELE	Math
MUELE	Music
PEELE	Physical Education
PYELE	Psychology
SIELE	Science
SSELE	Social Science
TCELE	Technical
TDELE	Technical Drafting
TYELE	Typewriting
VTELE	Visual Technology

D. Error Messages and Correction Procedure

1. Grade History Transaction Edit - SG007

   Any errors found while editing Grade History Update records will be
   noted on the printer. The records printed will have no effect on
   the Grade History tape. They are not processed.

   SG007-Transaction Error Messages

*******	Whenever an error is found in a data field, aserisks will be printed under the field in error and the transaction will not be processed. Check the write-up for the transaction to determine the proper contents of the field.
"" RECORD ON TAPE	I.D. Number Change. The old I.D. Number (1-10) has not been found on the Grade History Tape. The I.D. Number may be incorrect, the change may have already been made or the student may not have any data on the file. Search the Grade History Tape (SG009) using the New I.D. Number to see if the change has already
TRAILER=SPACES	This is an I.D. Number change system error. Notify the analyst immediately.

2. Grade History Update - SG008

   Any inconsistancies found while processing Grade History Update
   Records will be noted on the printer. The records printed will
   have no effect on the Grade History tape. They are not processed.
   The only exceptions are the "POSSIBLE DUPLICATE SUMMARY" messages.
   The data contained in the Advanced Standing Summary transaction
   is held for the summary check.

   SG008 - Transaction Error Messages

RECORD CODE ERROR	Record codes are 0, 1, 2, 3, 4, 5, 6, 7 & 9
TYPE CODE INVALID	Type codes are 1 (ADD), 2 (CHANGE), 3 (DELETE), 4 & 5 (SUMMARY)
NO MASTER RECORD	Attempted to add with no Grade History record and no Application Record.
NO MASTER 2-3	Attempted to change or delete with no Grade History record and no Application Record.
DUPLICATE ADD	Code 0 - Year and Semester match on file.
DUPLICATE ADD	Code 1 - Year, Semester and Catalog match on file (excluding "ELE").

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DUPLICATE ADD	Code 3 - Year, Semester and Catalog match on file.
DUPLICATE ADD	Code 4 - Year, Semester and Catalog match on file.
DUPLICATE ADD	Code 5 - Year, Semester, Catalog and message match on file.
DUPLICATE ADD	Code 6 - Year, Semester, Catalog and Record code match on file.
DUPLICATE ADD	Code 7 - Year, Semester, Catalog and Record code match on file.
UNMATCHED CHANGE	Code 0 - No match on Year, Semester, and Year Attended College.
UNMATCHED CHANGE	Code 1 - No match on Year, Semester, and Catalog.
UNMATCHED CHANGE	Code 2 - No match on Year, Semester, and Catalog.
UNMATCHED CHANGE	Code 3 - No match on Year, Semester and Catalog.
UNMATCHED CHANGE	Code 4 - Invalid Condition
UNMATCHED CHANGE	Code 5 - Invalid Condition
UNMATCHED CHANGE	Code 6 - No match on Year, Semester and Catalog.
UNMATCHED CHANGE	Code 7 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 0 - No match on Year, Semester and Year Attended College.
UNMATCHED DELETE	Code 1 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 2 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 3 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 4 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 5 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 6 - No match on Year, Semester and Catalog.
UNMATCHED DELETE	Code 7 - No match on Year, Semester and Catalog.
DELETE-BAD GRADE MATCH	Code 2 - No match on Year, Semester, Catalog and Grade.

type 4 card or the New Advanced Standings Hours from the type 5 card. The contents of the record after the transactions were processed is printed, but the record is written out as it was before the transactions.

3. Report Extract - SGØØ5

Any errors found while generating Grade History reports (P.R. Cards, Grade Mailers or Advisor Reports) will be noted on the printer. Records that are noted as errors may not be processed depending upon the type of error.

SGØØ5 - Transaction Error Messages

INVALID CURRICULUM
CODE
The curriculum code in the Application File record contains blanks, zeros or alphabetic data. This record will continue to be processed but an error will also be noted in SGØ1Ø.

INVALID COUNSELOR
CODE
The Counselor (Coordinator) Code in the Application File record contains blanks or zeros. This record will continue to be processed but the Counselor Field will contain spaces.

INVALID ADVISOR
CODE
The Advisor code in the Application File record was not numeric or did not find a match in the Advisor Table. This record will continue to be processed but will not appear on the Advisor Report.

NO HISTORY
RECORD
This error may only occur when running the "ALL" or "Current Semester" option. An Application File record has no matching Grade History record. This is not necessarily an error condition when running the "ALL" option, since some applicants do not attend and generate Grade History records. It is definitely an error condition when running the "Current Semester" option, since all current students must have a Grade History record. No report is generated for this record. Check for errors in previous jobs or I.D. Number changes.

NO MASTER RECORD
This error may only occur when running the "Data Processed" option. A Grade History record has no matching Application File record. No report is generated for this record. Check for I.D. Number changes or Graduate removal.

4. Report Print - SG010

Any errors found while printing the Grade History reports will be noted on the printer. Records that are noted as errors may not be printed depending upon the type of error.

SG010 - Transaction Error Messages

INVALID CURRI-   No Curriculum Disk record could be found that
CULUM CODE   matched the Curriculum Code in the Grade History
                    record. The Curriculum Checkout area of the report
                    will contain blanks.

LINE COUNT ERROR   This is a program malfunction. The record was not
                    printed. Notify the analyst immediately.

COURSE EXCEED 60   The maximum records that the Grade History system
                    will handle for any one student is sixty (60). If
                    this number is exceeded, the records office must
                    prepare a P.R. Card by hand containing the earliest
                    courses and remove those courses from the Grade
                    History record. A notation record must be entered
                    into the Grade History record noting a "Supplemental"
                    record maintained by the records office. This
                    record was not printed.

Systems Controls

the controls which ensure proper processing and storage of Grade History data are both manual and computer initiated. These controls fall into two basic groups, what the Records Office should do and what Data Systems should do to both ensure accurate processing and protection of existing Grade History data on Data Systems files.

1. Records Office Responsibilities

    All forms that are submitted by the Records office must have page numbers coded in the area designated (upper right hand corner). The records office should maintain a log consisting of the number of transaction batches sent to Data Systems, the date sent and the number of pages in the batch.

    Whenever possible, a new Cumulative Quality Point Average and Total Earned Hours should be computed when entering corrections to a students grade history record. With a pre-computed value to check against, the control specialist will be able to easily identify the more difficult types of data preparation errors (I.D. number error or grade change error).

    Even though processing is done on a weekly schedule, Course Waiver/ Substitution or Exemption forms should be batched and sent to Data Systems every other week ONLY! These transactions do not generate Permanent Record Cards. If they can be processed without other types of transactions, considerable computer time and paper can be saved.

2. Data Systems Responsibilities

    All Grade History input is received by the Data Systems Senior Clerk, dated, and checked into the keypunching section. Upon completion of keypunching, the batch is given to the control specialist for computer scheduling.

    Each batch is scheduled for an edit as soon as possible. The edit will identify errors which must be corrected before the actual update can be made. One or more edit runs may be made before the actual update. The control specialist will make the appropriate entry on the Operations Control Sheet when submitting a batch for computer processing.

    In some instances, the control specialist may not be able to identify and correct an error. In these cases the error list will be returned to the Records Office along with the printout generated by the valid transactions.

    Data Systems will be responsible for any damage done to the data-files due to erroneous computer programming or machine malfunction. Programming errors will be corrected as rapidly as possible depending upon the seriousness of the error. Machine malfunctions resulting in an aborted

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update or report printing will be rescheduled as soon as the machine
problem is solved. The current data file and the four previous data
files are saved as a security precaution. The second previous file is
stored in a location away from the Data Center. In the event of a
disaster at the Data Center, no more than two weeks-worth of transactions
will have to be re-processed.

MONTGOMERY COLLEGE DATA SYSTEMS OPERATIONS CONTROL SHEET

Procedure: GRADE HISTORY   #1165

TO: COMPUTER OPERATOR

Special instructions to process this run.

Process only the steps checked by Data Control.

After steps have been completed, initial "Completed".

RUN	COMPLETED	STEPS TO BE RUN
		Steps 1 - 5 (Edit)
		Steps 1 - 5 (Update)
		Steps 1 - 12 (Complete Run)
		Steps 1 - 15 (Complete Run & Adv. Rpt.)

Please return procedure and this Control Sheet
to Data Control.

List any problems separately on "Operations
Deficiency Report" sheet and give it to
Supervisor.

_____
Data Control Specialist

___/___/___
      Date