

ICA 2

→ Assumptions / Conditions

- (1) Records stay sorted : by department, the Course # then Section #
- (2) Perform the Operations Sequentially
- (3) Records must be kept in ascending order.
- (4) The Index File Can be extended
- (5) The data File Can be extended
- (6) The same Classroom can be reused for many Course Sections.

Index File

ART 123

ISYE 200

SOCI 300

Course #

Header Record

ART 123

ART 123

ISYE 200

ISYE 200

ISYE 200

SOCI 300

SOCI 300

Course #

Header Record

ART 123

ISYE 200

ISYE 200

ISYE 200

SOCI 300

SOCI 300

(1) Delete ART123

Index File

Course #

ART 123

Header Rec'd

ISYE 200

ART 123

OMIS 351

OMIS 351

SOCI 300

ISYE 200

ISYE 200

ISYE 200

SOCI 300

SOCI 300

(2) Insert OMIS 351

Course #

Course #

Index File

Header Rec'd

ART 123

ART 123

ISYE 200

OMIS 351

OMIS 351

ISYE 200

SOCI 300

ISYE 200

ISYE 200

ISYE 200

SOCI 300

SOCI 300

Index File

Header Rec'd

ISYE 200

OMIS 351

SOCI 300

OMIS 351

ISYE 200

ISYE 200

ISYE 200

SOCI 300

SOCI 300

(3) Delete ART 123

Index File		Course #	Section #	Classroom
ISYE 200		Header Record		
ISYE 350	→	ISYE 350	P1	EB201
OMIS 351	→	OMIS 351	P1	BH101
SOCI 300	→	ISYE 200	P1	EB209
	→	ISYE 200	P2	EB311
	→	ISYE 200	P3	EB221
	→	SOCI 300	P1	DS301
	→	SOCI 300	P2	DS321
	→			
	→			
	→			