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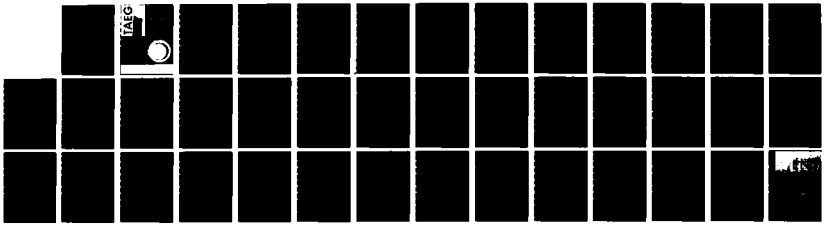

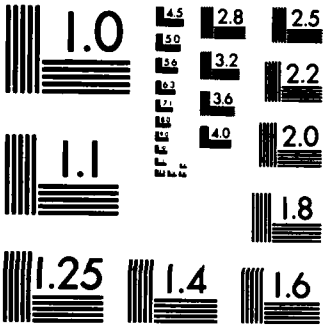

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TRAINING ANALYSIS AND EVALUATION GROUP

TECHNICAL MEMORANDUM 83-7

SURVEY OF THE EXTENT OF INDIVIDUALIZED INSTRUCTION IN NAVY "A" AND "C" SCHOOL COURSES

SEPTEMBER 1983

FOCUS ON THE TRAINED PERSON

TRAINING ANALYSIS AND EVALUATION GROUP
ORLANDO, FLORIDA 32813

Technical Memorandum 83-7

SURVEY OF THE EXTENT OF INDIVIDUALIZED INSTRUCTION IN NAVY "A" AND "C" SCHOOL COURSES

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A sample of Navy courses is categorized in terms of computer aided instruction, computer managed instruction, and programmed instruction. The hours spent in various types of courses on direct student-instructor contact, with hands-on material, and in programmed instruction are reported. The data show that the 'official' classification of method of instruction of courses does not correspond with the way personnel involved with the courses view the courses.

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SECTION I

INTRODUCTION

The confusion surrounding the description and usage of individualized instruction (II) in Navy technical training is of some concern in the Naval Education and Training Command (NAVEDTRACOM). It is difficult to evaluate the effectiveness/efficiency of II since few Navy courses could be classified as "pure" (or strictly) II. They do not satisfy the several criteria which characterize II; namely, release of time constraints, choice of media, and instruction adapted to skill levels and characteristics of the learners. Further complication is added by the perceptions of many Navy personnel that programmed instruction (PI), computer managed instruction (CMI), and computer aided instruction (CAI) are merely forms of "self-pacing." In fact, the latter term is often substituted for II. Actually, self-pacing is only one of several sound instructional elements required for II. Consequently, there is a need to differentiate between conventional instruction (CI) and II in terms of instructional strategy, instructional delivery, and instructional media and to assess the effectiveness/efficiency of CI and II strategies in various kinds of Navy training.

Several TAEG studies have examined various issues subsumed under II. An early study (Zajkowski, Heidt, Corey, Mew, and Micheli, 1979) assessed II in Navy technical training but was limited to enlisted preparatory and to class "A" schools. Among the study conclusions were the following:

1. Generally, II is as effective as conventional instruction and frequently reduces training time.

2. The use of various aspects of II, in particular CMI, CAI, and PI, is extensive in the military and is increasing in technical training.

3. The Navy is at the forefront of the attempt to increase the efficiency of technical training through the use of II.

The report also recommended actions designed to improve the implementation of II in the Navy. Subsequently, the Chief of Naval Education and Training (CNET) tasked TAEG[1] to undertake three of the actions recommended in that report. These were:

- an analysis of the relative effectiveness/efficiency of II for different kinds of training tasks and ability levels of trainees
- an assessment of the relative cost benefits of II versus CI
- a comprehensive survey of the types and extent of II in use throughout the Navy.

Three TAEG technical reports (Corey, 1981; Hall and Freda, 1982; and Freda, Hall, and Ford, 1982) summarize the outcomes of the first two of

[1]CNET ltr Code N-53 of 11 Feb 1980

these taskings. Two themes emerged from these studies. The first was that individualized instruction is just as effective as conventional instruction for operational jobs. The second was that the individualized curricula appeared to be more efficient than the conventional for the courses examined, and the curricula were more efficiently managed by the computer than by instructors. Another common observation in these reports was that there were various meanings attached to the concept of II, and that II apparently incorporates a variety of instructional practices in Navy training. Based on this finding, the TAEG was tasked[2] to identify and document the range of instructional activities in courses defined as "individualized" by the NAVEDTRACOM. The ensuing report (Evans and Braby, 1983) indicated that II in its pure form rarely occurs in Navy training and that effectiveness in courses is mediated more by the extent to which good instructional practices are used than by which instructional strategy is employed (II vs CI).

This present report continues from the previous studies. It presents a survey of the types and extent of II being used in a representative sample of Navy courses.

PURPOSE

This study categorized a sample of Navy courses in terms of computer aided instruction, computer managed instruction, and programmed instruction, and reported the hours spent in various types of courses on direct student-instructor contact, with hands-on material, and in programmed instruction.

DEFINITIONS

The following definitions, used in this report, are consistent with those promulgated by CNET (CNETINST 1500.12).

Individualized Instruction (II). An instructional strategy in which all learning activities are designed to accommodate individual differences in background, skill level, aptitudes, and cognitive styles. Individualized Instruction is characterized by the following attributes:

- releasing of time constraints
- choice of instructional media
- instruction adjusted to skill levels and learner characteristics; it often employs programmed instruction.

Conventional Instruction (CI). An instructional strategy in which learning activities are directed toward a normative model of the target population characteristics and usually delivered in a group environment. It is characterized by:

- predetermined group pacing
- preselected nonvariant media
- predetermined nonvariant instruction.

These characteristics, once established, are employed with all members of the group.

[2]CNET ltr Code 022 to CNTECHTRA of 5 Apr 1982

Programmed Instruction (PI). An instructional format which presents individualized materials in a sequence of small units each of which requires an immediate response from the trainee and which also provides the trainee with immediate knowledge of results.

Programmed Instruction Text. An instructional delivery system which employs programmed instruction.

Computer Managed Instruction (CMI). An instructional management system in which a computer is employed to prescribe a series of instructional materials for individual trainees. Usually associated with II, it may include the capability for record keeping, testing, counseling, and selecting various media for the delivery of instruction.

Computer Aided Instruction (CAI). An instructional delivery system in which a computer system is used to provide instruction and where there is an ongoing interchange of stimulus and reaction between the computer and trainee. When a CMI capability coexists within the host computer system, the computer system serves both a media and management function.

Instructor Managed Instruction (IMI). An instructional management system in which the instructor prescribes a series of instructional materials for individual trainees. It is usually associated with the delivery of II and may include the capability for record keeping, testing, counseling, and selecting various media for the delivery of instruction.

ORGANIZATION OF THE REPORT

In addition to this introductory section, the report contains three other sections and three appendices. Section II describes the sample selection, the data collection instrument, and the procedure for data collection. Section III presents the results of the study. Section IV contains a discussion of the study findings. Appendix A contains the data collection instrument used for the study. Appendix B is a list of the sample of courses examined in the study and their Navy Integrated Training Resources and Administration System (NITRAS) descriptions. Appendix C contains examples of questionnaire responses for courses examined in the study.

SECTION II

METHOD

SAMPLE SELECTION

A 25 percent random stratified sample (N = 623) was selected from 2,491 "A" and "C" School courses. The sampling unit was the NITRAS Course Data Processing (CDP) number.

The 2,491 A and C courses were stratified using Type of Course by Method of Instruction by DOD Skill Code. For the DOD Skill Code only the first digit of the code was used but officer and enlisted codes were kept distinct. Thus, 17 Skill Codes, 4 Methods of Instruction, and 14 Type of Course categories were identified. All empty categories were discarded. Categories with four or more occurrences were separated from those with three or less. Samples of 25 percent of each category with four or more occurrences were drawn randomly. The number to sample from each category was decided as follows:

- divide the number in the category by 4
- if the result is an integer, randomly select that number of courses from the category; if the number has a decimal, then round up or down to the nearest integer if the decimal is .75 or .25, respectively; if the decimal is .5, then round up half the time and down half the time, again randomly
- take all categories with three or fewer occurrences and combine them into one category; from that category randomly select 25 percent of the total occurrences, applying the rounding rules stated above.

The result was a list of 623 courses that represented the 2,491 A and C courses without sampling bias.

DATA COLLECTION INSTRUMENT

A questionnaire approach was selected in order to collect information on a large number of courses. A draft of the questionnaire was reviewed by each Assistant Chief of Staff (ACOS) and other staff members at Chief of Naval Technical Training (CNTECHTRA) and by instructors and the Curriculum and Instructional Standards Officer at Service School Command, Orlando. Based on inputs from these reviews, the questionnaire was put in final form. The questionnaire sent to each course in the sample is shown in appendix A.

PROCEDURE

The questionnaire was mailed to the address for each Course Data Processing (CDP) number in the sample with the request that an instructor of the course or someone knowledgeable about how the course is conducted

complete the form. The questions asked for the number of hours spent in particular activities or in using particular materials or equipment. Upon completion, the questionnaire was returned to the TAEG for data analysis.

DATA PROCESSING AND ANALYSIS

The raw questionnaire data were entered into a computer file and were processed and analyzed using the statistical software package SPSS (Nie, Hull, Jenkins, Steinbrener, and Bent, 1975; Hull and Nie, 1981). The specific procedures used included FREQUENCIES, CROSSTABS, and BREAKDOWN.

SECTION III

RESULTS

Of the 623 questionnaires mailed out, 499 (80.1 percent) were returned. Some of the returned questionnaires were for discontinued courses or courses that had not started yet, resulting in 445 (71.4 percent) usable questionnaires. The distribution of the types of courses in the final sample is shown in table 1.

TABLE 1. TYPES OF COURSES IN THE SAMPLE

TYPE OF COURSE	SAMPLE	
	NUMBER	PERCENT*
C7 E-5 and above	5	1.1
C5 Enlisted Medical	1	0.2
C3 Enlisted Communications	6	1.3
C2 Officer	20	4.5
C1 Enlisted	342	76.9
	374	84.0
A3 Enlisted Communications	5	1.1
A2 Officer	7	1.6
A1 Enlisted	33	7.4
AP Enlisted Preparatory	21	4.7
AA Apprenticeship	5	1.1
	71	15.9
TOTAL	445	99.9

*The percent column total is 99.9 due to rounding error.

The NITRAS classifies courses as "self-paced," "CMI," "self-paced and CMI," or "group-paced." Table 2 shows how the courses in the sample were classified by NITRAS and how they were described by the questionnaire respondents. NITRAS classified 7 percent (3.4 percent, 0.2 percent, and 3.4 percent, respectively, for SP, CMI or SP and CMI) of the courses as having "some II." (See appendix B for NITRAS descriptions of each course included in the sample.) However, the questionnaire results showed that 18.2 percent of the courses were reported to have some form of individualized instruction (II). That is, 2.6 times more courses were reported as having some form of II than the NITRAS classification of having some II. Also, of the 31 courses that NITRAS does classify as having some II, 8 courses (25.8 percent) were reported by the questionnaire respondents as having no II at all. Of the 414 courses in the present sample classified by NITRAS as

group-paced, 58 (14 percent) were reported by the questionnaire respondents as having some self-pacing. Clearly, the classification of a course by method of instruction in NITRAS does not always agree with the perceptions of individuals who teach the course.

TABLE 2. CROSS TABULATION OF NITRAS AND QUESTIONNAIRE CATEGORIES

	NITRAS CATEGORIES				
QUESTIONNAIRE CATEGORIES	SELF-PACED	CMI	SELF-PACED AND CMI	GROUP PACED	BOTH (SP & GP)
NO II	5	0	3	356	364 (81.8%)
SOME II	10	1	12	58	81 (18.2%)
	15 (3.4%)	1 (0.2%)	15 (3.4%)	414 (93%)	445 (100%)

The mean responses, in terms of time utilized (in hours), to each item in the questionnaire are shown in table 3, broken down by NITRAS-classified method of instruction. (See appendix C for examples of responses to the questionnaire items for courses examined.[3]) The column labeled SP in this table refers to all three types of courses (self-paced, CMI, and both self-paced and CMI) classified by NITRAS as self-paced. The column labeled GP refers to NITRAS-classified group-paced courses, and the column labeled BOTH reports the means for all courses in the sample. Clearly, courses classified as self-paced report more hours of self-paced instruction, and those classified as group-paced report more hours of group-paced instruction. However, neither NITRAS classification necessarily represents a pure type; self-paced courses do report some group-paced instruction, and vice versa.

Self-paced courses use computer-managed instruction, computer-assisted instruction and programmed instruction texts to a greater extent than group-paced courses. Also, these instructional media are used more in theory portions of self-paced courses than in laboratory portions of self-paced courses. In general, the use of instructional media is greater in SP courses than in GP courses.

[3]Four examples from 445 usable questionnaires are shown in appendix C. A summary of questionnaire responses for each course examined in the study is available from TAEG upon request.

TABLE 3. MEANS OF RESPONSES TO QUESTIONNAIRE

	THEORY PORTION OF COURSE						LAB PORTION OF COURSE						TOTAL COURSE		
	Self-Paced Instruction			Group Instruction			Self-Paced Instruction			Group Instruction					
	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH
	(In Mean Hours)														
1. How many hours are there in each portion of the course?	67	3	8	39	139	132	68	5	9	27	117	111	201	264	260
2. How many hours are spent on self-paced or individualized instruction managed by an instructor?	45	2	5	2	9	8	55	3	7	20	15	15	123	29	35
3. How many hours are spent in computer managed instruction (CMI)?	32	4	6	0	0	0	13	0.2	1	13	0.2	1	45	4	7
4. How many hours are spent in computer assisted instruction (CAI)?	6	0	0.4	0	0	0	3	0.3	0.5	0	0.3	0.3	10	0.6	1
5. How many hours are spent with programmed instruction texts?	57	0.5	4	2	2	2	26	0.1	2	0.8	1	1	86	4	10
6. How many hours are there of direct individual student contact with an instructor?	33	1	3	19	62	59	28	3	5	9	55	52	90	121	119

TABLE 3. MEANS OF RESPONSES TO QUESTIONNAIRE (continued)

	THEORY PORTION OF COURSE						LAB PORTION OF COURSE						TOTAL COURSE		
	Self-Paced Instruction			Group Instruction			Self-Paced Instruction			Group Instruction					
	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH	SP	GP	BOTH
	(In Mean Hours)														
7. How many hours are spent using instructional media such as programmed texts, workbooks, audiovisual equipment, or computer assisted instruction?	57	1	5	6	43	40	47	2	5	18	14	14	127	59	64
8. How many hours are spent using hands-on material such as lab equipment or simulators?	10	0	0.7	1	6	7	77	5	10	31	111	105	120	122	121

Group-paced courses report more hours of direct individual student contact with an instructor in both the theory and laboratory portions of a course. Also, the lab portions of group-paced courses show more hours using hands-on equipment than do the lab portions of self-paced courses. The use of hands-on equipment is concentrated in lab portions for both types of instruction.

The percent of time spent on various instructional activities is shown in table 4. Courses designated SP reported, on the average, that 63 percent of the theory portion of the course was self-paced. The lab portions of SP courses were 72 percent self-paced and 28 percent group-paced. The percent of time spent on other activities can be determined by inspection of the table. Generally, courses designated GP reported very low percentages of self-pacing and computer managed instruction. Both types of courses report about the same percent of time spent on direct individual student contact with an instructor. SP courses report a much higher percentage of time spent using various instructional media.

The percent of total class time spent using various instructional media broken down by method of instruction is shown in table 5. These percentages are only for those courses that reported some time spent using a particular method of instruction in a given part of the course (e.g., self-paced lab). As might be expected, GP courses show a low rate of usage of all these instructional media except for hands-on equipment in group-paced labs. CAI is used to some extent but only in those courses that are classified as both CMI and self-paced. Programmed instruction texts are used in all three types of self-paced instruction. The use of hands-on equipment is fairly widespread in the laboratory portions of all types of instruction.

TABLE 4. PERCENT OF TIME SPENT ON VARIOUS ACTIVITIES IN LAB AND THEORY PORTIONS OF CLASS

QUESTIONNAIRE CLASS ACTIVITIES*	NITRAS METHOD OF INSTRUCTION					
	SP			GP		
	THEORY	LAB	COMBINED	THEORY	LAB	COMBINED
Self-Paced Instruction	63	72	67	2	4	3
Group-Paced Instruction	37	28	33	98	96	97
Self-Paced Instruction Managed by an Instructor	44	79	61	8	15	11
CMI	30	27	22	3	.3	2
Hours of Direct Individual Student Contact With Instructor	49	39	44	44	48	46
Instructional Media	59	68	63	31	13	23

*These are from items in the questionnaire (appendix A)

TABLE 5. PERCENT OF TIME USING VARIOUS MEDIA BY METHOD OF INSTRUCTION

NITRAS CATEGORIES	INSTRUCTIONAL MEDIA											
	CAI				PI				HANDS-ON			
	SP THEORY	GP THEORY	SP LAB	GP LAB	SP THEORY	GP THEORY	SP LAB	GP LAB	SP THEORY	GP THEORY	SP LAB	GP LAB
Self-paced	0	0	0	0	32	0	18	1	7	0	38	35
CMI	0	0	0	0	100	0	0	0	8	0	100	0
SP & CMI	14	0	14	0	75	0	32	0	12	7	70	13
Group-Paced	0	0	0.2	1	3	3	0.5	1	0	4	4	83

SECTION IV

CONCLUSIONS

The classification of a course as "individualized instruction" is often "in the eyes of the beholder." The data clearly show that the perceptions of persons responding to the questionnaire differ from the NITRAS classification of the courses.

There is, however, internal consistency in the NITRAS. According to our questionnaire, NITRAS-classified SP courses have more self-paced instruction, while NITRAS-classified GP courses have more group-paced instruction. This was true for both theory and lab portions of the courses.

While the NITRAS classifications of method of instruction are generally accurate, they do not necessarily represent pure types. Courses designated as group-paced are primarily group-paced but some may have significant portions of self-paced instruction. Conversely, courses designated as self-paced are mostly self-paced, but are by no means entirely self-paced. In general, the NITRAS classifications represent only the predominant method and do not exclude other methods of instruction. However, in some cases the NITRAS classification is completely at odds with the reported method of instruction.

Many courses labeled by NITRAS as SP, CMI, a combination of SP and CMI, or GP actually were "mixed"; i.e., both SP and GP. This is probably due to "a pragmatic philosophy within these courses of using instructional practices which match learning tasks and that a single instructional strategy will probably not be suitable for all tasks within a given course" (Evans and Braby, 1983, p. 32).

According to the definition of II presented earlier, II is characterized by (1) release of time constraints, (2) choice of instructional media, and (3) instruction adjusted to skill levels and learner characteristics. However, the study results suggest (as well as actual practice in the NAVEDTRACOM) that the NITRAS categories of SP, CMI, and a combination of SP and CMI depend mainly on self-pacing as the distinguishing characteristic of II.

Some differences exist in instructional techniques between group and self-paced instruction that may not be due entirely to pacing. For example, group-paced courses show more direct individual student-instructor contact while self-paced courses show more use of various instructional media. Differences in instructional technique that are not tied to pacing could confuse attempts to determine the effectiveness of one method of instruction compared to another.

In summary, the present study shows that the NAVEDTRACOM classification of courses (by NITRAS) does not correspond with the way personnel involved with the courses view the courses. This is in large measure due to the fact that the complexity of the courses cannot be adequately described in the simple "pure" terms of the NITRAS. Some courses are "mixed": that is, have

some elements of self-pacing and group-pacing. In addition, the NITRAS categorization of II depends mainly on the feature of self-pacing. To more adequately describe training courses, it is recommended that the complete definition of II (not merely release of time constraints) be applied.

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APPENDIX A

DATA COLLECTION INSTRUMENT

CDP_____

Name of Course_____

Name of Person Providing Information_____

Rating/Rate/Rank_____

Title_____

AV Phone Number_____

Please fill in the following blank spaces with the applicable number of hours.

	THEORY PORTION OF COURSE		LAB PORTION OF COURSE		TOTAL
	Self-Paced Instruction	Group Instruction	Self-Paced Instruction	Group Instruction	COURSE
1. How many hours are there in each portion of the course?	___	___	___	___	___
2. How many hours are spent on self-paced or individualized instruction managed by an instructor?	___	___	___	___	___
3. How many hours are spent in computer managed instruction (CMI)?	___	___	___	___	___
4. How many hours are spent in computer assisted instruction (CAI)?	___	___	___	___	___
5. How many hours are spent with programmed instruction texts?	___	___	___	___	___
6. How many hours are there of direct individual student contact with an instructor?	___	___	___	___	___

	THEORY PORTION OF COURSE		LAB PORTION OF COURSE		TOTAL
	Self-Paced Instruction	Group Instruction	Self-Paced Instruction	Group Instruction	COURSE
7. How many hours are spent using instructional media such as programmed texts, workbooks, audiovisual equipment, or computer assisted instruction?	___	___	___	___	___
8. How many hours are spent using hands-on material such as lab equipment or simulators?	___	___	___	___	___

APPENDIX B

LIST OF COURSES EXAMINED AND THEIR NITRAS DESCRIPTIONS

COURSE CHART LISTING

START DTC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
0580A	G115	A1	L	0	GMM A
G314	3003	A1	L	1	SCAT MOD 1
00783	G346	A1	L	1	SCAT MOD 4
00783	G344	A1	L	1	SCAT MOD 6
0580A	G03X	A1	L	1	CTA FOREIGN
00790	G343	A1	L	1	SCAT MODS 3 6
G30R2	G02C	A1	L	1	EW A 3M/TEST
G30R7	G04A	A1	L	1	CTSU PMT
0580A	G420	A1	L	1	CTA ALT COMM
0580A	G425	A1	L	1	CTA COMM TN
0580A	G435	A1	L	1	CT COM EQUIP TUN
0580A	G428	A1	L	1	CTA ALT RADAR
0580A	G437	A1	L	1	CTA RADAR CTSS
0580A	G437	A1	L	1	CT RAD EQUIP TUN
0580A	G376	A1	L	1	FTG A2
G0731	G003	A1	L	1	TM BASIC TECH
42851	G015	A1	L	1	SURF ST CLASS A
42851	G103	A1	L	1	SQQ23 PAIR OPBAS
42851	G401	A1	L	1	BQQ2 BAS OPR
42851	G00N	A1	L	1	SURF STA FOREIGN
0581A	G381	A1	B	2	RM A SHORE
42087	G540	A1	L	2	OS A
G2071	G487	A1	L	4	FA A
G2079	G115	A1	P	4	IFT A-1
0581A	G107	A1	L	5	DP A
30147	G453	A1	P	5	RP A
0581A	G073	A1	L	6	ICA
0580A	G484	A1	P	6	BT CL A 600 PSI
0580A	1664	A1	L	6	GS A MECHANICAL
0580A	G046	A1	P	6	IMA
G5071	G236	A1	L	7	DU A
G5071	G290	A1	L	7	UT A
G5071	G251	A1	L	7	ED A
0581A	G125	A1	L	8	MS A
G3093	G246	A1	L	1	AFTA AX A1
G3093	G240	A1	B	1	AVA AQ A1
G3093	G521	A1	P	1	TD A1
35970	G472	A1	P	4	AG A1
G3093	G501	A1	B	6	AD A1
G3115	G578	A1	L	6	H2 AD ENTRY LEVE
G3115	G021	A1	L	6	CAC AD ENTRY LEV
G3115	G571	A1	L	6	S3 AD ENTRY LEVE
G3115	G576	A1	L	6	H3 AD ENTRY LEVE
G3093	G517	A1	L	6	AMH A1
G3093	G450	A1	L	6	ASM (A1) MERGED
G3093	G506	A1	L	6	AD A1
G2603	G041	A1	L	6	MN A
0581A	G565	A1	L	2	SNEP RM A SCHOOL
0581A	G566	A1	L	5	SNEP SK SHORE
31945	4094	A2	L	13	NAVAL INTEL OFF

COURSE CAREER LISTINGS

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
62661	6018	A2	L	14	COMM OFF FOREIGN
0617A	6439	A2	L	14	ADVANCED NUC PWR
0610A	0220	A2	L	14	SH SALV DIV OFF
62740	0257	A2	L	15	MIL JUST/LAWYER
62741	0230	A2	L	18	BQC - CORE
62741	6497	A2	L	18	BQC ASST END USE
63082	9795	A2	L	12	EAG PIPREP
63082	9923	A2	L	12	EAG MARINE EWO
63093	602N	A2	L	14	AMO A2 MOD
63082	6161	A3	P	1	CTM A
63082	6302	A3	P	2	CTT A PREP
30921	6321	A3	L	2	CTI A2 RUSSIAN
30921	6329	A3	L	2	CTI A2 COMMON BL
30921	6122	A3	L	2	CTI A2 HEBREW
63082	601F	A3	L	2	CTO A PHASE II
42083	603L	AA	L	7	AA TRAINING STUD
42084	6302	AA	L	7	AA TRAINING
42085	603R	AA	L	7	SA TRAINING STUD
42085	603S	AA	L	7	FA TRAINING STUD
42084	6308	AA	L	7	FA TRAINING
0580A	5242	AF	L	0	E E/R
00750	6546	AF	L	0	SS ENL BAS TM
31914	6481	AF	L	0	SUB NUCENL INDOC
0581A	601P	AF	B	1	BE/E-AT
65931	601T	AF	B	1	BE/E-AQ
0580A	601X	AF	B	1	BE/E-AX
0581A	602T	AF	B	1	BE/E-AE
65931	602K	AF	B	1	BE/E-ASE
63093	6230	AF	B	1	BE/E-AT
63093	6234	AF	B	1	BE/E - AV NONNAV
0580A	6248	AF	B	1	BE/E-FTG
0580A	6256	AF	B	1	BE/E ET NF
0581A	6269	AF	C	1	BE/E-DS
0581A	6273	AF	B	1	BE/E-EM
0581A	6277	AF	B	1	BE/E-STS
65931	6306	AF	B	1	BE/E-EW
65931	6310	AF	B	1	BE/E-FTG
65931	6314	AF	B	1	BE/E GMT ASROC
0581A	6352	AF	B	1	BE/E-RM(SS) GYO
0581A	6360	AF	B	1	BE/E-EW CTM
0581A	6365	AF	B	1	BE/E NON A SCHL
0580A	6369	AF	B	1	BE/E-GMT ASROC
65931	6403	AF	B	1	BE/E ET ALT
65931	6407	AF	B	1	BE/E-ET RAD ALT
0581A	6411	AF	B	1	BE/E-ET RAD 4YO
0580A	6415	AF	B	1	BE/E ET OTH
0581A	6446	AF	B	1	BE/E-ET (SU) EW
65931	6543	AF	B	1	BE/E-GSM
65931	6550	AF	B	1	BE/E TM ADVANCE
0581A	6561	AF	L	1	JOBS ELECT

COURSE SAMPLE LISTING

START UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
0581A	G5G3	AP	L	5	JOBS AD CLERICAL
0580A	G2G2	AP	B	G	PROP ENG GAS MM
0581A	G04R	AP	L	G	JOBS GAS TUR ENG
07G3A	G01L	AP	C	9	ART RTC GL
G3093	G213	AP	C	0	AFUN AMH
G3093	G217	AP	B	0	AFUN ASM
G3093	G221	AP	B	0	AFUN AX
G3093	G226	AP	B	0	AFUN AO
G3094	G231	AP	P	9	AVFUN ABH
0581A	G470	AP	L	0	SEAMAN C/C
0580A	G01G	AP	L	4	PE SCH INDOC
G3093	G297	AP	P	4	NST MP
0581A	G4G4	AP	L	9	SAUDI FST TWO
0580A	3405	C1	L	0	INST BASIC
G8437	8499	C1	L	0	INST BASIC
0580A	3720	C1	L	0	IND INST TECH
0753A	4062	C1	L	0	RECRUIT CO CDR
0581A	26GP	C1	L	1	2M REPAIR PROGRA
G1797	3244	C1	L	1	AN/SRC-20/21
G1797	3453	C1	L	1	AN/UCC-1 MAINT
G1797	3052	C1	L	1	AN/URT-23 MAINT
00750	3191	C1	L	1	COMM EQP CMB MA
G3322	533X	C1	L	1	WRR-7 CMB MA
0581A	544U	C1	L	1	CUDIXS MAINT
0581A	4114	C1	L	1	AN/SYQ-7V2 MAINT
G3154	8080	C1	L	1	WRT-4 CMB MA
G3290	4409	C1	L	1	LHA MM&TG MAINT
G3154	02GD	C1	L	1	SUB DIG COMM EQ
G3154	8G53	C1	L	1	RCVR CMB MA
G3154	8G5A	C1	L	1	ANT/COUP CMB MA
G3290	4202	C1	L	1	RF MAINT 1427
G8437	03E5	C1	L	1	TRI ECS O/M LVL2
G1797	8755	C1	L	1	AN/USC-34 MAINT
G8437	038U	C1	L	1	TRI ECS RPL LVL1
G8437	038Y	C1	L	1	TRI ECS SUPP DM
G8437	039X	C1	L	1	TRI ECS CMT INTM
G8437	0 [illegible]G	C1	L	1	TRI ECS ANT SS M
0581A	3507	C1	L	1	AN/URN-20 MAINT
G1797	0293	C1	L	1	AN/APX-72 MAINT
G3154	341U	C1	L	1	BRD-7 CMB MA
G3154	[illegible]	C1	L	1	TYPE 18 CMB MA
G3154	017T	C1	L	1	DPS-15 CMB MA
G3094	01GC	C1	L	1	SLQ-32 TACOPS
G3094	017A	C1	L	1	SLQ-17 EQUIP OPS
G3094	015R	C1	L	1	WLR-1 PMS
G3094	01GF	C1	L	1	SLQ-32 ECM
G3094	412R	C1	L	1	AN/SLQ-22V MAINT
G3094	41AM	C1	L	1	ULQ-6C MAINT
G1797	42AG	C1	L	1	AN/URN-25 MAINT
G3094	020A	C1	L	1	TACI/OUTF:UYK 20

COURSE SAMPLE LISTING

START UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
00750	023U	C1	L	1	BLD 1 TDFS CMDMA
35412	400W	C1	L	1	AN/TSC 54 MAI
64610	472X	C1	L	1	TER SSR MOD8 DIF
61707	7827	C1	L	1	RRSM
64610	4809	C1	L	1	SPG 51C/DTG
0581A	340G	C1	L	1	AN/SPS 20E
61707	3505	C1	L	1	AN/SPS 55 MAINT
63290	4398	C1	L	1	SPG 55B MOD 8
0581A	408G	C1	L	1	AN/SPS 49 MAINT
0581A	4581	C1	L	1	AN/SPS 65 MAINT
63290	8640	C1	L	1	3DRDRMTSPS52A
39029	035D	C1	L	1	AN/SPY 1A RDR
61690	027E	C1	L	1	CTO 76MM MK 75
42087	8616	C1	L	1	GMT 5/54 42 9/10
63154	4777	C1	L	1	FCS 112/2 MAINT
0583A	4610	C1	L	1	COMP MK 47 MOD 8
42087	2967	C1	L	1	FCS MK37 MAINT
0583A	3017	C1	L	1	ASROC LAUN 16
63290	1483A	C1	L	1	GMLS MK 29 MOD 0
63290	1381	C1	L	1	BAS PT DET MOI
65031	3677	C1	L	1	SUBROC MK 28 IM
63290	472Y	C1	L	1	TER MK 76 / 8
63290	3488	C1	L	1	TARMK74 4/5/8TCS
64610	4638	C1	L	1	FT 88
64610	463Y	C1	L	1	POL ILT
63154	3288	C1	L	1	FTTCS 14B-0 TIED
00750	5655	C1	L	1	FCS83-1 PLATFORM
00750	5660	C1	L	1	FCS 83-1 DCC M/I
00750	5658	C1	L	1	FCS83-1 MULTI EQ
64610	409K	C1	L	1	FT83T
64610	409H	C1	L	1	MTTRI
63290	469R	C1	L	1	CGN38 CSMMC PH 2
63290	4695	C1	L	1	CSMMC TTA 1 PH2
63437	409P	C1	L	1	TRIDENT FTR RTFI
63437	411N	C1	L	1	MTRF 7/4 AD TWRY
63437	411R	C1	L	1	LCG 13/0 GRDCMTN
63154	4310	C1	L	1	MT 3017 CONVTRNG
63290	4584	C1	L	1	MK 23 TAS
64610	018W	C1	L	1	FT POL TRTRK PRF
65031	3663	C1	L	1	TORP MK 14 IM
65031	3671	C1	L	1	TORP MK 48 IM
65031	036M	C1	L	1	TORP MK46 MOD5IM
62003	3574	C1	L	1	SQQ 14 MAINT
00750	5167	C1	L	1	SSSA
42851	347J	C1	L	1	SQQ 26AXR MAINT
42851	5079	C1	L	1	UWFCS MK 111 MAT
42851	7787	C1	L	1	SQS35/SQA10 MAT
42851	304X	C1	L	1	SQQ23 PAIR MAINT
63401	4387	C1	L	1	SONAR SQR15 OPTR
42851	4410	C1	L	1	DSG15 CMB MA

COURSE SAMPLE LISTING

START TOC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
04613	4053	C1	L	1	OSP ST
08437	040H	C1	L	1	DQQG O/M/C LEV-2
08437	040N	C1	L	1	DQQG INTTR O/M 1
08437	040S	C1	L	1	DQQG GRP A TEPT
00750	3E2Y	C1	L	1	FC 113 C/E CM
42851	4417	C1	L	1	BLR14 CMB MA
00750	7805	C1	L	1	DQR21 CMB MA
00750	4078	C1	L	1	MK 81 ANAL MAINT
42851	4577	C1	L	1	DQQ5/SA BAS MA
42851	4241	C1	L	1	WQC 2/2A OPR/MAI
03401	8364	C1	L	1	SOSUS ADP MAINT
08437	040Y	C1	L	1	TRT DWS LEVEL 3
03200	1155	C1	L	1	TERMINAL MAINT
03200	8360	C1	L	1	BASIC UYA-4V
03200	1288	C1	L	1	RD-203 MAINT
03200	1414	C1	L	1	RD-231 MAINT
03200	3004	C1	L	1	TAR CMPTR 152-1
03200	4107	C1	L	1	UYA5/G MAINT
03200	3431	C1	L	1	UYK7 SSN688 TIPT
03200	4399	C1	L	1	U-1700 MAINT
03200	4408	C1	L	1	LHA ITAWDS MAINT
03200	401W	C1	L	1	UYK7 FFG7 P PE
03200	401X	C1	L	1	UYA-4 DISPLAY
41672	41GT	C1	L	1	OU-83
41672	01GT	C1	L	1	UYH-2 DMS
08437	041E	C1	L	1	TRT CCS LEVEL 3
08437	041R	C1	L	1	OJ 172 ADV MAINT
08437	041P	C1	L	1	OJ 326 STD MAINT
08437	0411	C1	L	1	OJ172 MAINT INTR
08437	041X	C1	L	1	MSDC TRT ADV M
04613	0132	C1	L	1	SYR 1 MAINT TRNG
83063	0347	C1	L	1	ALGIS COMP FUND
03200	3423	C1	L	1	CRYP KWT 37 MAI
57063	5116	C1	L	1	TTY 28 ASR MAINT
03200	3419	C1	L	1	STEAMVALVE MAI
35412	4725	C1	L	1	CRYP KW-7C MAINT
35063	4070	C1	L	1	CRYP KY-7 MAI
03154	5063	C1	L	1	UGC 20R/2S CMB M
03200	470N	C1	L	1	CRYP KG40 TAM
35063	406R	C1	L	1	CRYP KW-7 MAI
35412	417W	C1	L	1	CRYP KY-28 MAINT
00750	3403	C1	L	1	NAVTEC TP1 G37CL
04613	7787	C1	L	1	AIDS
04613	4727	C1	L	1	NTM C
04613	4052	C1	L	1	OSP NA
03322	5201	C1	L	1	CNC PROCESSOR 2
03154	8103	C1	L	1	LORAN WPN 3/4 AT
03154	2735	C1	L	1	MARDAN T/M 1
08437	0211	C1	L	1	LSGM/NAVAIDS CON
04613	0231	C1	L	1	NTM REFL

COURSE CONTROL LISTING

START DTG	CDP	COURSE TYPE	MODE	SKILL CODE	COURSE TITLE
G3322	4236	C1	L	1	DRFT CNC CONV
G3322	4288	C1	L	1	DRFT SING CONV
G8437	042M	C1	L	1	SING C 7 CALIB
G3322	4234	C1	L	1	DRFT ATDS CONV 1
G8437	042R	C1	L	1	DRN-3D MAINT
G8437	0428	C1	L	1	DRN/SONAR CONV
G8437	042W	C1	L	1	PROCESSOR 1
G8437	042Y	C1	L	1	I/O CONTROLLER
G8437	043A	C1	L	1	MTU MAINTENANCE
G8437	0472	C1	L	1	NAV SYS LAB
00750	8815	C1	L	1	SINS 3 G CMD MA
0580A	4705	C1	L	1	TTA CCTV DFFT
0580A	8730	C1	L	1	TCC CCTV MAINT
0581A	3009	C1	L	2	COMSYS TECH
00750	5078	C1	L	2	SND ANAL VTB RED
00750	540P	C1	L	2	BRD 7/WY/BRQUAOF
G3372	8870	C1	L	2	WLR 1G CMD MA
G3154	5054	C1	L	2	WLR G CMD MA
G3154	4533	C1	L	2	ESM TECH G37 CL
G3154	4535	C1	L	2	ESM TECH G38 CL
00750	027Y	C1	L	2	WLQ4(NEW)CMDMA
31041	4015	C1	L	2	DSTATP
35412	400X	C1	L	2	DCS SATCOM OPR
G4105	8743	C1	L	4	DMSP OPERATOR
G2040	1036	C1	L	4	EOD REFR NAVY
G3018	5234	C1	L	4	BUDS ING
G4118	419W	C1	L	4	SFQC PHASE 2 MLD
G4118	4200	C1	L	4	SFQC PHASE 2 DML
5540C	2110	C1	L	4	DIVER SECOND
00750	3023	C1	L	4	SCUBA DIVER
4244C	2302	C1	L	4	SATDIVER
0618A	4037	C1	L	4	MUSIC NAVRES
G3 3	0924	C1	L	4	DC REP PARTY LDR
0581A	3054	C1	L	5	PN DC1
G2750	3050	C1	L	5	COURT REPORTER
00254	4709	C1	P	5	ASSEMBLY PROGRAM
0581A	3151	C1	L	5	SK INDEP DUTY
G1737	3523	C1	L	5	SUADPS 207
G4107	4016	C1	L	5	ADV INFO SPEC
3541C	4721	C1	L	6	DIAL CUN EX TECH
G1737	7301	C1	L	6	PLOTTER NC2MOD1A
G3154	4183J	C1	L	6	IC PACKAGE
G1737	4815	C1	L	6	PLOTTER PT 512/5
0581A	4074	C1	L	6	IVCS(STC 1)MAINT
00750	0502	C1	L	6	CAMS MK3
G3322	5218	C1	L	6	INT AN SYS CMD M
0580A	0210	C1	L	6	MK 6 DRE MAINT
G3007	5746	C1	L	6	NWAM
G3013	0203	C1	L	6	NWAWM
G1737	403M	C1	L	6	BT MN PROP MNT

COURSE CAREER LISTING

START DTC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
01690	41[illegible]	C1	L	6	GENREG ABC MAINT
0581A	32[illegible]	C1	L	6	APS MAINT
01690	4315	C1	P	6	GR ABC CONS OPR
02603	4103	C1	L	6	HAG ABC CONS OPR
57063	4454	C1	B	6	HAG ABC CONS OPR
0581A	47[illegible]	C1	L	6	LHA CSC MAINT
01797	0[illegible]E	C1	L	6	VALVE MAI
01797	0[illegible]H	C1	L	6	AUX TURB MAINT
01797	0[illegible]S	C1	L	6	AIR COMP MAINT
01797	047H	C1	L	6	FDB MAINT
01797	047M	C1	L	6	ME / LO PUR MAIN
0581A	R3Q8	C1	L	6	LHA ADV APS OPER
0580A	03[illegible]V	C1	L	6	SESEC
0580A	3104	C1	L	6	EN/GM SG7/G45
00750	3211	C1	L	6	SSN/SSBN AUX PKG
31954	015K	C1	L	6	CL1G O2 GEN O/M
0580A	482G	C1	L	6	1182 PROP TECH
03154	8123	C1	L	6	7L1G OXGEN O/M
0580A	4622	C1	L	6	SSTG SO1 MAINT
03154	8126	C1	L	6	38ND81/RDTECMGMA
0580A	415N	C1	L	6	FFG-7 FSMM PTI 1
0580A	415I	C1	L	6	FFG-7 CCS OPS
0613A	415T	C1	L	6	FFG HOT PLT MAIN
0580A	2976	C1	L	6	DDA 16V149 SSDGM
0580A	030X	C1	L	6	FFG-7 AUXELECSYS
02987	1308	C1	L	6	NPTU REACTOR
02985	1316	C1	L	6	NPTU MECHANICAL
02986	1324	C1	L	6	NPTU LAB
01797	4893	C1	L	6	EL MOTOR REWIND
01797	015W	C1	L	6	ELECT CONT DEV
0580A	3513	C1	L	6	GYRO TECH ELEC
00750	5441	C1	L	6	GYRO MK19 CMB MA
0580A	3643	C1	L	6	TYPE 18 PERI REP
02137	5306	C1	L	6	DSRV OPERATOR
0580A	013R	C1	L	6	FFG 7 DEG MAINT
00133	337L	C1	L	7	BASIC WELDING
00133	337M	C1	L	7	NNC WELDING
0581A	320H	C1	L	7	NDT UTSTLDR INSP
0581A	351G	C1	L	7	PRCSION GRND/BAL
03302	511A	C1	L	7	MACH TOOL OP
03003	3503	C1	L	7	EA- CONST INSP
0581A	3101	C1	L	7	AIR COND REFRIG
0581A	4975	C1	L	7	CEN ACR OP MAINT
02117	4021	C1	L	7	CE-CABLE SPLICE
0613A	017M	C1	L	7	ED/BLAST/RECERT
01797	438	C1	L	8	MS MANAGEMENT
0581A	4[illegible]	C1	L	8	SHIP'S STORE MGT
32[illegible]4	015N	C1	L	8	PS
01797	3483	C1	L	8	LAUNDRY/DC SUPRV
0581A	4[illegible]	C1	L	8	BARBER SHPBD

COURSE SAMPLE LISTING

START UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
63115	2336	C1	L	1	MIN COMPON REP
63115	2574	C1	L	1	MIN COMPON REP
63115	4736	C1	L	1	MIN COMPON REP
63115	414D	C1	L	1	MOD RPR INST TRA
63115	414H	C1	L	1	MOD RPR INST TRA
63115	4198	C1	L	1	AN/APS-115 SEA
63115	300P	C1	L	1	ARR69 RADIO RECV
63115	7623	C1	L	1	ARC 131 REC TRAN
63115	301C	C1	L	1	ARA50 UHF/ADF IN
63115	7776	C1	L	1	AN/ARC-52 RADIO
63115	4196	C1	L	1	RT648/698 TRANSC
63115	7506	C1	L	1	APN-154 RDR BEAC
63115	7614	C1	L	1	APN-130 RDR NAV
63115	4158	C1	L	1	APN141 RDR ALT
63115	4170	C1	L	1	ARN52 TACAN
63115	7629	C1	L	1	ARN52 TACAN
63115	4816	C1	L	1	APN-171 RDR ALT
63115	350J	C1	L	1	ASN41 NAV COMP
63115	4161	C1	L	1	APN 153/V/NAV
63115	7961	C1	L	1	APN 171/V/ ALT
63115	5970	C1	L	1	ASQ-10 MAG DETEC
63115	4163	C1	L	1	AN/APX-76A IFF
63115	7930	C1	L	1	AN/APX-76A IFF
63115	4164	C1	L	1	APX-72 RADAR
63115	7616	C1	L	1	APX-72 RADAR
63115	7975	C1	L	1	AN/ALQ76 INT MAI
63115	3552	C1	L	1	ALQ100 CNTMRS
63115	302H	C1	L	1	ARA63 RECV-DEC
63115	4785	C1	L	1	KY 532B/533B IFF
63115	350K	C1	L	1	RT542/A RT INT
63115	4175	C1	L	1	INS NAV SYS INT
63115	414A	C1	L	1	AN/ALQ-126 INTER
63115	342A	C1	L	1	ANARN84 TAC REC
63115	402Y	C1	L	1	ANARN84 TAC REC
63115	305R	C1	L	1	ALR45 CNTMEA REC
63115	316D	C1	L	1	ASQ PULSE DECOD
63115	321B	C1	L	1	ALR50 RDR INT
63115	035X	C1	L	1	INERTIAL PLAT IN
63115	027V	C1	L	1	ANARC114 RDO SET
63115	2835	C1	L	1	ASQ81/V MAG ANOL
63115	4300	C1	L	1	ANAQM18/ANAQM20
63115	3740	C1	L	1	AN/AYK2 NAV COMP
63115	413Y	C1	L	1	AN/AKT 22V TELEM
63115	4172	C1	L	1	ASA27A COMPT INT
63115	344A	C1	L	1	E2C DET/DIS SYS
63115	4122	C1	L	1	APA125A IND INT
63115	4124	C1	L	1	APX7 RAD REC SYS
63115	400F	C1	L	1	ASA16 SYS MAI/I
63115	302X	C1	L	1	ASA50 INT MAI
63115	400P	C1	L	1	P3AB WEP SYS ORG

COURSE SAMPLE LISTINGS

START DTC	CDF	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
83115	4210	C1	L	1	AQA-7/V/ 4/5 INT
83115	400R	C1	L	1	P3C AV SYS TECH
83115	400T	C1	L	1	ARC161 IF INT
83115	400V	C1	L	1	P3C COMM/NAV
83115	4002	C1	L	1	ASN20V FLT REC
83115	4244	C1	L	1	P3C UPDATE 1 ORG
83115	344R	C1	L	1	S3A APS116 RDR
83115	408R	C1	L	1	IP 1214/AA INTER
83115	3825	C1	L	1	AQABCL/KAQD L/W
83115	304N	C1	L	1	A7E COMM NAV ID
83115	7410	C1	L	1	APN190 DOP RDR
83115	7914	C1	L	1	A/AD ATT HEADING
83115	4701	C1	L	1	APQ 120 RDR SET
83115	48CP	C1	L	1	A7C/E WEP SYS SP
83115	7904	C1	L	1	F4J CNI/ECM ORG
83115	4026	C1	L	1	RF4B ASQ-88 CNI
83115	4930	C1	L	1	F14A ELECTON SYS
83115	350R	C1	L	1	AQE WEP SYS TECH
83115	4820	C1	L	1	ALQ99/ALM109C
83115	303Y	C1	L	1	ALM117 DIG TEST
83115	344N	C1	L	1	USH17 RECORDER
83115	414M	C1	L	1	EA-6B I CAP COMM
83115	8427	C1	L	1	AN/ALM-117 DIGIT
83115	8431	C1	L	1	CV2435 AYAG CONV
83093	4115	C1	L	1	SPN-35A
83093	4080	C1	L	1	TPN-30
83093	409R	C1	L	1	SPN-44
83093	4075	C1	L	1	MATC COMM REP
83093	4596	C1	L	1	TPX-42 CATCCDAIR
83093	022X	C1	L	1	TPN-63 PAR
83115	8445	C1	L	1	AN/APS-125 RADAR
83115	300H	C1	L	1	APM225 MOD ANA
83115	350C	C1	L	1	APM375 MINI-SACE
83115	4720	C1	L	1	ASM401 MINI-SACE
83115	40CP	C1	L	1	APQ116 RDR SET
83115	7911	C1	L	1	APQ120 RDR INT
83115	4370	C1	L	1	AWG10A MCS INT
83115	41GT	C1	L	1	AN/AWG-10A IN MT
83115	415V	C1	L	1	F-4J AN/AWG-10A
83115	8349	C1	L	1	ANAWG10A MISSLE
83115	8886	C1	L	1	AN/AWG-10A CONTL
83115	7503	C1	L	1	F4 MISSILE CONT
83115	340R	C1	L	1	ANAWM23 AWG9
83115	3380	C1	L	1	AWM23 CONT DISP
83115	339P	C1	L	1	AWM23 COMP TEST
83115	3755	C1	L	1	SH-3 AN/AQS-13
83115	305N	C1	L	1	ASM175 TEST CON
83115	4180	C1	L	1	E2B/C INFLT MON
83115	4187	C1	L	1	E2B DATA/PRO ORG
83115	5828	C1	L	1	AN/ASQ-155 CMPTR

[illegible]

STAFF DIR	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
G3115	4876	C1	L	1	AN/AJM 42/V7
G3115	2595	C1	L	1	USM247 OPERATOR
G3115	460X	C1	L	1	USM247 ONLINE MA
G3115	4547	C1	L	1	ANUSM429/V7 OPER
G3115	022M	C1	L	1	ANUSM247 ANALYST
G3115	4111	C1	L	1	USM403 DATS/OPRS
G3115	5854	C1	L	1	AVA 1 VI DIS/TY7
G3115	4632	C1	L	1	AWM95 INT MAINT
G3115	7537	C1	L	1	RF4 CAMERA INT
G3096	3584	C1	P	4	MOPIC
G3096	401L	C1	P	4	PHOTO LAB TECH
G3115	4088	C1	L	5	GSE MAT MANAGER
32793	3330	C1	L	5	MARMAR C1
G3093	3611	C1	L	5	DAC C1
G3115	3759	C1	L	6	CH46E ELEC SYS
G3115	7541	C1	L	6	RF4 AC MECH MAI
G3115	031M	C1	L	6	J 79 GE 8/10
G3115	7403	C1	L	6	T58 ENGS INT/CLR
G3115	7396	C1	L	6	TF30P8/408 INT
G3115	4637	C1	L	6	T400 CP 400 ENG
G3115	4295	C1	L	6	T58GE16 INTERMED
G3115	312W	C1	L	6	CH46 HELO MECH
G3115	260W	C1	L	6	CH53A/D P/P ORG
G3115	2482	C1	L	6	P3 T56A10/14 ORG
G3115	8698	C1	L	6	WR27 APU INTER
G3115	3972	C1	L	6	AGA/E/RAGD P/P
G3115	7408	C1	L	6	A/E POWER PLANTS
G3115	7484	C1	L	6	E8 P/P SYS ORG
G3115	31 8N	C1	L	6	AV8A F402 ENGINE
G3115	5860	C1	L	6	TF30P414 ENG CLR
G3094	7766	C1	P	6	NP/TIT/
G3115	4700	C1	L	6	AGN54/V7 PWR INT
G3115	3233	C1	L	6	AGN31/8/02 INER
G3115	2477	C1	L	6	AJE3A BM/REL INT
G3115	273V	C1	L	6	GSE CS&I INT MAI
G3115	3762	C1	L	6	SH 3 AF/HYD SY
G3115	5295	C1	L	6	SH3 AUTO STAB EQ
G3115	3777	C1	L	6	H 53 AFC ORG MAI
G3115	3761	C1	L	6	H 53 RTR/REL SYS
G3115	400A	C1	L	6	C2A HYD/AF ORG
G3115	5831	C1	L	6	P3 PB20N A/PILOT
G3115	7340	C1	L	6	P3 INTEG ELEC
G3115	2453	C1	L	6	C2E/S ELEC SYS
G3115	7096	C1	L	6	A4 AJB3/3A ORG
G3115	34 EN	C1	L	6	A4 ELEC/INST ORG
G3115	3895	C1	L	6	AG A/F AND HYDS
G3115	7453	C1	L	6	AG ELEC SYS ORG
G3115	3787	C1	L	6	AGW207 IO AFC INT
G3115	4963	C1	L	6	A/F PER ENVIR
G3115	4672	C1	L	6	A/F HYD/PNEU SYS

COURSE SAMPLE LISTING

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
63115	7446	C1	L	6	F4B/J A/F HYD
63115	7808	C1	L	6	F/RF4B/J ADC INT
63115	7689	C1	L	6	ASA32 AFCG INT
63115	7433	C1	L	6	F4 DATA LINK SYS
63115	3897	C1	L	6	F4 ELEC SYS.ORG
63115	7493	C1	L	6	AJB7/ASN70
63115	5887	C1	L	6	RF8G ELEC ORG
63115	328P	C1	L	6	T2 HYD FLIGHT CT
63115	2394	C1	L	6	T2B/C F/I SYS
63115	4444	C1	L	6	F14A ADV ELEC
63115	4445	C1	L	6	F14A AF HYD SYS
35570	4976	C1	L	6	NDI TECHNICIAN
63115	471H	C1	L	6	P3 AIR COND/PRES
63094	3802	C1	L	6	ALRE C13
63115	023W	C1	L	6	20MM POINT SYS
63115	7700	C1	L	6	A-4 ARMAMENT
63115	7444	C1	L	6	F4 ARM/WPN CONT
63096	3580	C1	P	6	PHER
63115	8849	C1	L	9	H3 ASN123 INTERM
63115	8590	C1	L	9	A18 MAINT TRNG
42149	011R	C1	L	0	5"54 MK45 OP&M
42087	8903	C1	L	1	ASCOMM MAINT TEC
42087	5984	C1	L	1	RSPE
61690	4531	C1	L	1	HWS MAINTENANCE
42352	0128	C1	L	1	FFG7COMSYS TT II
62603	5380	C1	P	2	INTER MORSE CODE
62401	808K	C1	L	2	SONAR RNG PRED
42252	402W	C1	L	2	ASAC BASIC
42087	4476	C1	L	2	ASAC NTDS
42087	4612	C1	L	5	ASWMOD DATA PROC
42087	1124	C1	L	5	NTDS OPER PROG
62603	3119	C1	L	6	MSWEEP ELECT
62603	3109	C1	L	6	LN PACKARD DIES
61707	8829	C1	L	7	MARCORPCRYOOPER
61690	3068	C1	L	1	RDR SPG 55A MAI
[illegible]	3489	C1		1	FIELD CALIBRATN
42867	2925	C1	L	2	AIC SUPERVISOR
42087	5309	C1	L	2	NAVWAR OP SPEC/C
42252	3663	C1	L	2	CIC WATCH SUPER
42087	8089	C1	L	2	NTDS INPUT CORE
42252	010M	C1	L	2	CG NTDS INPUT
[illegible]	010M	C1	L	2	LAMPS III MSNCON
[illegible]	0158	C1	L	6	PUET
[illegible]	4703	C1	L	6	GYRO MK 27
[illegible]	034R	C1	L	0	SNEP RAMADAN
[illegible]	[illegible]	C1	L	6	CM SCOT COURSES
[illegible]	[illegible]	C1	L	6	SEA CADET TRNG
[illegible]	[illegible]	[illegible]	L	8	BRIEFS/TRNG
[illegible]	233M	C1	L	9	NAVREG/DRILLS WO
[illegible]	[illegible]	C2	L	12	SUAC

COURSE SAMPLE LISTING

STAFF UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
42087	032K	C2	L	12	FFG 7 WEPS OFF
63154	0177	C2	L	12	SWS/POLARISWEPOFF
64619	0373	C2	L	12	TARTAR OFF ADV
64619	4198	C2	L	12	SWS COM C4 WEPS
64619	419F	C2	L	12	SWS WEPS OFF C4
39029	034W	C2	L	12	AEGIS C/S OFF
64619	4285	C2	L	12	SWS NAV OFF CONV
63415	0345	C2	L	13	IMAGERY INTERP
0760A	0205	C2	L	14	CB OPS SPT/FINIS
62661	0194	C2	L	14	COMM OFF FLT
62985	130R	C2	L	14	NPPO-OFFICER
0580A	8415	C2	L	14	FOOW CERT
63190	020X	C2	L	14	FFG7 ENG OFF
63190	8492	C2	L	14	SWO DH CMBT SYS
0610A	0217	C2	L	14	NEOC CROSS TRA
64165	8742	C2	L	15	DMSP INT/ANAL
63018	205L	C2	L	15	CB CIVACT TM ODT
64165	9623	C2	L	17	DISASTERPREP OFF
62741	413R	C2	L	18	UADPS-SP
63236	0163	C2	L	18	TRANS MGMT
63094	4404	C2	L	12	ADOI WEST
63221	4413	C2	L	17	CINEMATOGRAPHY
42087	1224	C2	L	12	NTDS DATA UTIL
42087	9281	C2	L	12	STAFF CWO
42087	9579	C2	L	12	CIC OFFICER INT
42852	9585	C2	L	12	RES CICWO INTERM
42087	2711	C2	P	12	NON-NATO CIC WO
63013	9364	C2	L	12	NU WPN EMP PLANN
62603	0151	C2	L	14	M/S ENG OFF
42851	9363	C2	L	12	JR FORTIGNOFFASW
42852	9382	C2	L	12	TAO
42852	010G	C2	L	12	NTDS USER CORE
42087	808R	C2	L	12	CV NTDS UTIL
63013	011U	C2	L	12	CTTC
63013	537L	C2	L	11	NWPN SPEC BRIEF
30320	3484	C3	L	1	CTM GSQ 76 MAT
30157	3652	C3	L	1	STRAWMAT MAINT
30321	4321	C3	L	1	CTM STREAMLINER
30321	4011	C3	L	1	SPEC PRINTER II
30321	8787	C3	L	1	AN/UYA-7 MAINT
32695	2056	C3	L	2	CTT INT ELINT
63082	031C	C3	L	2	CCSOC PH II
32695	4482	C3	L	2	CTI INT HEBREW
00849	213G	C3	L	5	CTR GYK/UYK3 PRO
63018	3596	C5	L	4	SPEC OPER TECH
65931	3670	C7	P	1	TORP MK 46 TEQ
32695	4402	C7	L	2	CT SR MIL SUPVR
00702	0283	C7	L	2	CW ADVANCED OPR
42145	273K	C7	L	5	3M SYS COORD
65971	460A	C7	L	6	CM-J

COURSE SAMPLE LISTING

START UIC	CDP	COURSE TYPE	MODE	SKILL CODE	SHORT TITLE
65971	541X	C7	L	7	DU J
65971	4CCX	C7	L	7	CO J
63053	4511	C7	L	1	TD C7
63053	4515	C7	L	G	AME C7
63111	024C	C7	L	1	HARPOON FAM OFT
63111	024G	C7	L	1	RSNF MK XII AIMS
63111	024L	C7	L	1	RSNF OMEGA OPS
63111	024Q	C7	L	1	RSNF WSN 2 MA II
63111	024U	C7	L	1	RSNF MK19 LEV II
63111	024Y	C7	L	1	MK309 FCS LEV I
63111	025C	C7	L	1	UQN 4 SSS LEV II
63111	025G	C7	L	1	RSNF WQC2A MA II
63111	025L	C7	L	1	RSNF MK75 LEV II
63111	025Q	C7	L	1	RSNF SPS55 MA II
63111	025U	C7	L	1	RSNF START (MOD)
63111	4208	C7	L	1	AN/SLQ32 FAM/OPS
63111	4204	C7	L	1	RSNF CAS LEV II
63111	4272	C7	L	1	RSNF MK92 LEV II
63111	427G	C7	L	1	CIWS MAINT LEV I
63111	8G17	C7	L	G	RSNF PET INDOC
63111	8G21	C7	L	G	RSNF CNTL PROP
63111	8G25	C7	L	G	RSNF MTU DIESEL
63111	8G29	C7	L	G	RSNF CNTL SYS O

APPENDIX C

FOUR EXAMPLES OF QUESTIONNAIRE RESPONSES FOR COURSES EXAMINED[4]

[4]A summary of questionnaire responses for each course examined in the study is available from TAEG upon request.

RECORD NUMBER --> 005
CDP --> 5440
TYPE OF INSTRUCTION --> L
TYPE OF COURSE --> C1
SKILL CODE --> 101

	THEORY		LAB		
	SELF-PACED	GROUP	SELF-PACED	GROUP	TOTAL
1	0000	0327	0000	0713	1040
2	0000	0070	0000	0100	0170
3	0000	0000	0000	0000	0000
4	0000	0000	0000	0000	0000
5	0000	0000	0000	0000	0000
6	0000	0070	0000	0100	0170
7	0000	0000	0000	0000	0000
8	0000	0050	0000	0663	0713

RECORD NUMBER --> 006
CDP --> 6262
TYPE OF INSTRUCTION --> B
TYPE OF COURSE --> AP
SKILL CODE --> 651

	THEORY		LAB		
	SELF-PACED	GROUP	SELF-PACED	GROUP	TOTAL
1	0113	0000	0011	0006	0130
2	0113	0000	0011	0006	0130
3	0113	0000	0011	0006	0130
4	0006	0000	0001	0000	0007
5	0059	0000	0000	0000	0059
6	0113	0000	0011	0000	0124
7	0113	0000	0011	0006	0130
8	0000	0000	0011	0006	0017

RECORD NUMBER --> 007
CDP --> 6213
TYPE OF INSTRUCTION --> C
TYPE OF COURSE --> AP
SKILL CODE --> 000

	THEORY		LAB		
	SELF-PACED	GROUP	SELF-PACED	GROUP	TOTAL
1	0049	0000	0005	0001	0055
2	0000	0000	0005	0001	0006
3	0049	0000	0000	0000	0049
4	0000	0000	0000	0000	0000
5	0049	0000	0000	0000	0049
6	0000	0000	0000	0000	0000
7	0049	0000	0005	0000	0054
8	0004	0000	0005	0000	0009

RECORD NUMBER --> 008
CDP --> 6221
TYPE OF INSTRUCTION --> B
TYPE OF COURSE --> AP
SKILL CODE --> 000

	THEORY		LAB		
	SELF-PACED	GROUP	SELF-PACED	GROUP	TOTAL
1	0000	0049	0000	0005	0054
2	0000	0004	0000	0005	0009
3	0000	0000	0000	0000	0000
4	0000	0000	0000	0000	0000
5	0049	0000	0000	0000	0049
6	0000	0000	0000	0000	0000
7	0049	0000	0005	0000	0054
8	0004	0000	0005	0000	0009

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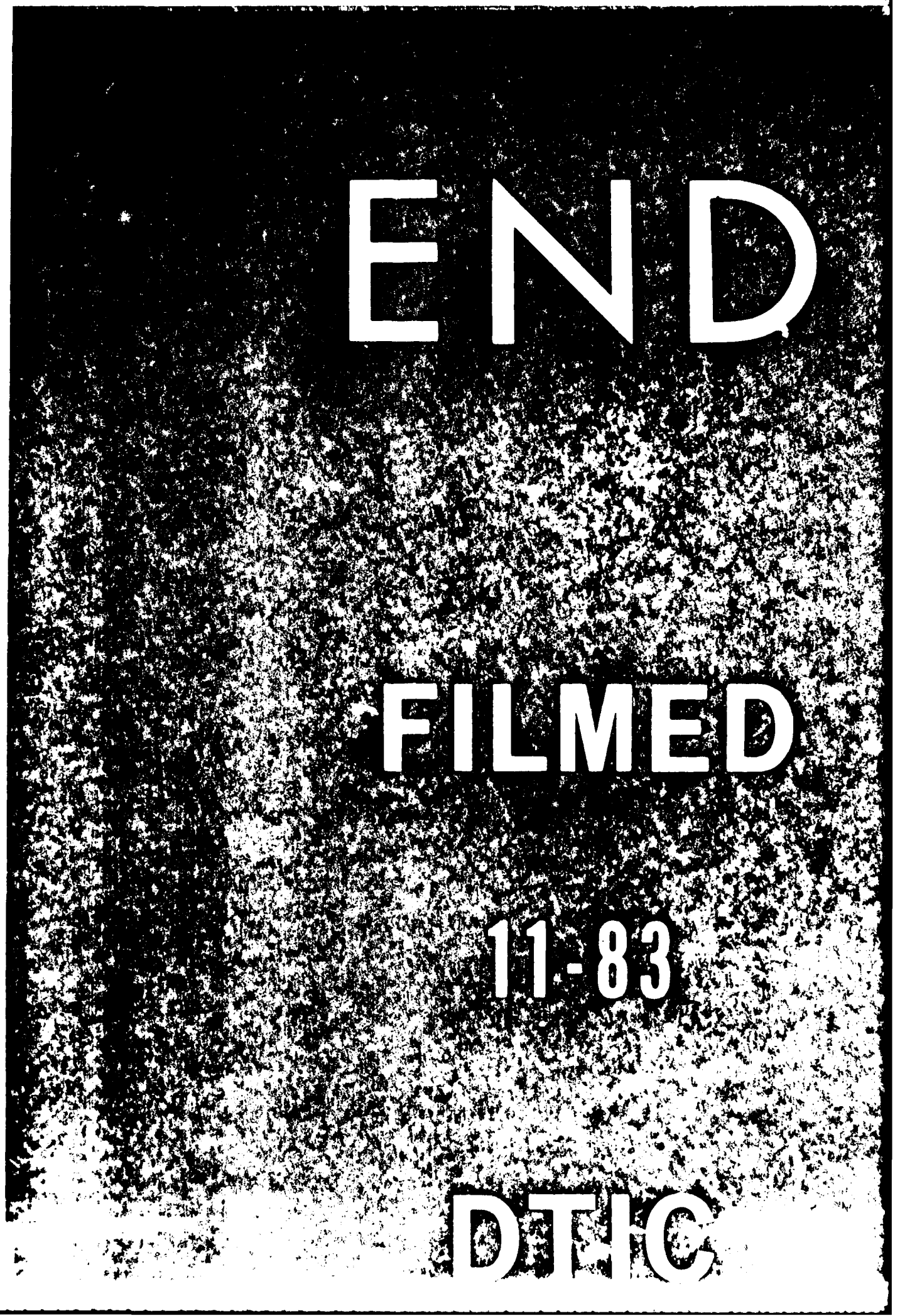
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