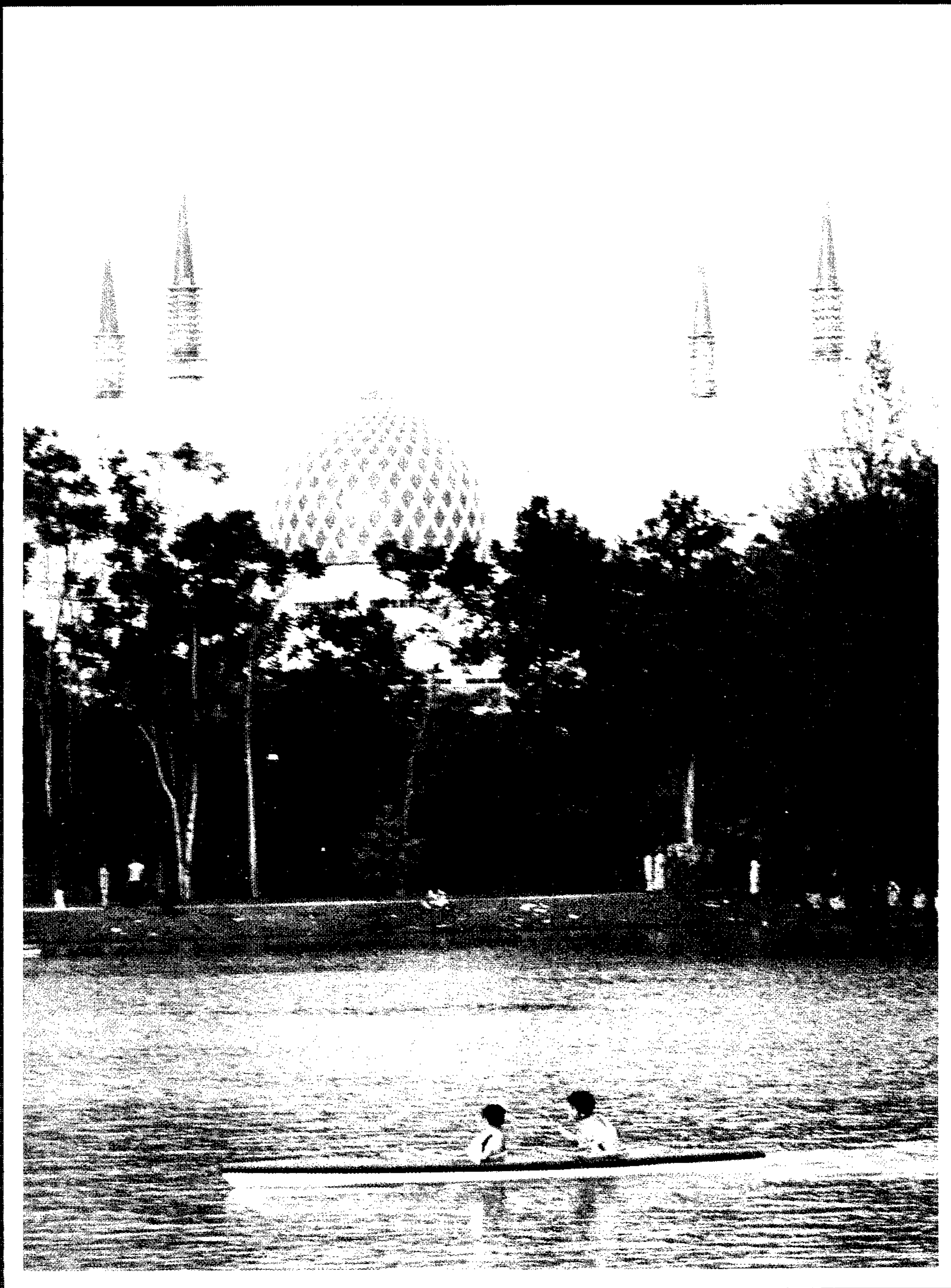


مليسيا



The ITM/MUCIA Program in Malaysia

***Cooperation
in Higher Education***

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Support for publication of this report has been provided from the
general operating funds of the Indiana University Foundation and
the Midwest Universities Consortium for International Activities.

May 1987

Contents

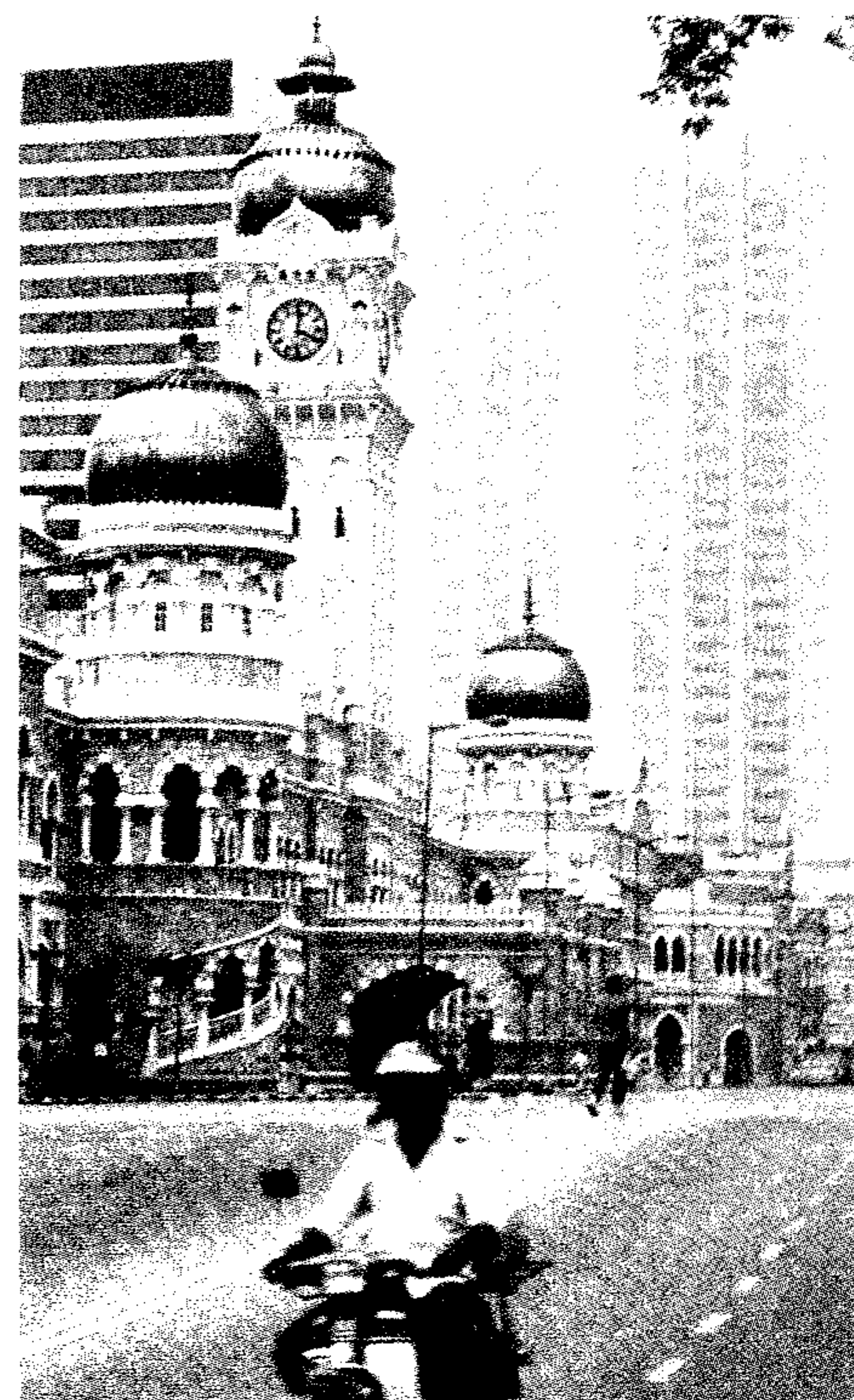
Foreword

Part I: An Overview

The Goals	
Education and Development	
The Costs of Overseas Education	
Declining Success Rates	
The "Twinning Concept"	
Genesis of the ITM/MUCIA Cooperative Program	
The Search for Solutions	
Discussions with ITM	
Four Requirements for a U.S. Program in Malaysia	
Finalizing the Plans	
II. The Program's Design	

Part II: The ITM/MUCIA Cooperative Program

III. The Administration of the Program	
Contract Administration	
The Provost	
Faculty Governance	
IV. The ITM/MUCIA Center: Shah Alam	
The Challenge	
From Deserted Facility to Campus	
Layout of the ITM/MUCIA Center	
The Institut Teknologi MARA	
Shah Alam and Environs	
V. The First Academic Year	
February through June 1985	
The First Semester	
The Second Semester	
Summer 1986	
VI. The Selection and Preparation of Students	
Government Scholars	
Selecting Students	
Admissions to the Bridge	
English Language Remediation	
The Learning Skills Program	
The Office of Student Services	
VII. The Students	
The Student Population	
Academic Performance	
Faculty Observations	
Student Activities	
VIII. The Faculty	
Faculty Recruitment	
Review and Selection of Faculty	
Profile of the Faculty	
The Bridge Program	
Living and Working Environment	
Faculty Orientation	



- X. Curriculum
 - Quality Control
 - Course Requirements
 - Maintaining Student Records
- XI. Placement
 - Placement of Malaysian Students in U.S.
 - The ITM/MUCIA Placement Services Office
 - Matching Student to Institution
 - Prospects for Placement

Part III: Conclusions

- XII. Conclusions and Prospects for the Future

Appendix

- A. Midwest Universities Consortium for International Activities, Inc.
- B. Course Offerings and Major Plans of Study
 - Course Listing
 - Pre-Business Program
 - Pre-Computer Science Program
 - Pre-Engineering Program
- C. Student Enrollment by Intake and Major
- D. The ITM/MUCIA Project Staff
 - MUCIA Staff in Shah Alam
 - ITM Support Staff in Shah Alam
 - Office of International Programs, IU
 - School of Continuing Studies, IU
- E. The ITM/MUCIA Faculty
 - The Degree Program
 - The Bridge Program



Foreword

This report describes a new initiative in international education—the ITM/MUCIA Cooperative Program in Malaysia at Shah Alam near Malaysia's capitol, Kuala Lumpur. It is a joint effort between Indiana University (IU) and the Midwest Universities Consortium for International Activities (MUCIA) in the U.S. and the Institut Teknologi MARA (ITM) and the Malaysian Ministry of Education in Malaysia. The ITM/MUCIA Program promises significant advantages for Malaysian educators and students as well as a new opportunity for cooperation between Malaysia and U.S. institutions of higher education.

Born of the Malaysian Government's educational goals, the program brings the first two years of an American undergraduate program to students in Malaysia. The academic program is drawn from Indiana University's curriculum. Courses are taught primarily by faculty from MUCIA's universities with the assistance of other faculty recruited throughout the U.S.

The organization of the project demonstrates both the strengths and complexities of a large-scale international cooperative venture. On the Malaysian side, the Institut Teknologi MARA provides support services needed to carry out the program. This is accomplished under the leadership of the Head of the Kolej Pengajian Persediaan (College of Preparatory Studies—KPP) at ITM. In collaboration with the Jabatan Perkhidmatan Awam (Public Services Department) and other Malaysian Government agencies sponsoring students for education overseas, the leadership and staff of ITM have developed a vision of the program that drives its implementation.

That vision sees qualified Malaysian students enrolling in a program of higher education offered in Malaysia but conducted with the same standards, quality, and techniques that are promoted within the U.S. higher education community. Once students complete the first two years of the undergraduate curriculum in Malaysia, they become eligible for placement at appropriate universities in the U.S. In this model, the work of any necessary English language remediation, the difficulties of academic and social adjustment, and the expenses of relocation and overseas training are reduced while the capacity to enhance Malaysian students' academic preparation remains unimpaired.

When the idea of the program was first proposed we realized that it would require marshalling much of Indiana University's experience in overseas project work. We also understood that it would require us to design a set of new goals and relationships, drawing upon MUCIA's experience in constructing budgets and project schedules as well as the consortium's pool of university faculty. At Indiana University, the School of Continuing Studies is the primary source of experience in delivery of curriculum, registration, enrollment, credit, and in maintaining quality control of off-campus academic programs, while the Indiana University Office of International Programs provides the project management resources needed to administer this enterprise on behalf of MUCIA and in collaboration with our Malaysian partners.

Start-up time was short: The project agreement received final approval in January of 1985 with the first classes to begin in late June. Not every element of the program could be put

in place by June nor were the initial tasks involved free of complications. From the beginning, however, everyone involved with this project demonstrated remarkable flexibility and adaptability. Without patience and the ability to devise effective solutions to unexpected difficulties, this cooperative program could not have progressed as far as it now has.

The challenge to the Malaysians and Americans involved was to create a complete US educational facility within the space of six to nine months. Housing, books, materials, laboratories, offices, and staff all had to be found to support the work of U.S. based faculty who began arriving six months after project approval. The Government of Malaysia has succeeded, in large measure due to the support of the Ministry of Education, the efforts of the KPP staff and colleagues at ITM, and the Jabatan Perkhidmatan Awam.

The ITM/MUCIA Cooperative Program is now almost two years old, and the first group of students has nearly completed its third academic semester. By January 1987, the program will have 1,434 students enrolled and 120 faculty on site. The first students to complete the program (a group of approximately 300) will finish in August and transfer, with the program's assistance, to colleges and universities in the U.S. The means by which this has been accomplished are described in the report that follows.

Many challenges remain. The program must sustain its academic quality, expand the range of student experiences on campus, and stimulate students to thoughtfully examine how they may adapt to American educational and social patterns without forsaking Malaysian values and identity. In the end, the most significant remaining challenge belongs to the ITM/MUCIA students who will enter upper division programs in the U.S. Their success will be the most important measure of the program's success.

We know that the education we provide in Shah Alam is designed to further Malaysian goals for national development. Malaysia's leaders are determined, while pursuing these goals, to preserve indigenous religious and cultural values and to incorporate them into the economic and social life of the country. Like many nations that gained freedom from foreign domination in the mid-20th century, Malaysia discovered that models of development drawn from its own heritage are often more appropriate for Malaysians than those drawn from the West. We recognize our obligation to work within the Malaysian framework for national development.

This program would never have succeeded without the professionalism and vision of our Malaysian partners, and we have been personally and professionally enriched by these cooperative efforts. We have made good friends and learned much. Malaysia has provided American institutions represented in the ITM/MUCIA Program with one of the most innovative developments of the decade in international education.

*James Weigand, Dean
School of Continuing Studies
Indiana University
February 15, 1987*

*John V. Lombardi
MUCIA Project Director
Indiana University
February 15, 1987*

The Goals

Manpower statistics, training goals and development plans are ultimately an expression of peoples' struggles to improve their lives. Two such people are Siti and Ahmad (pseudonyms).

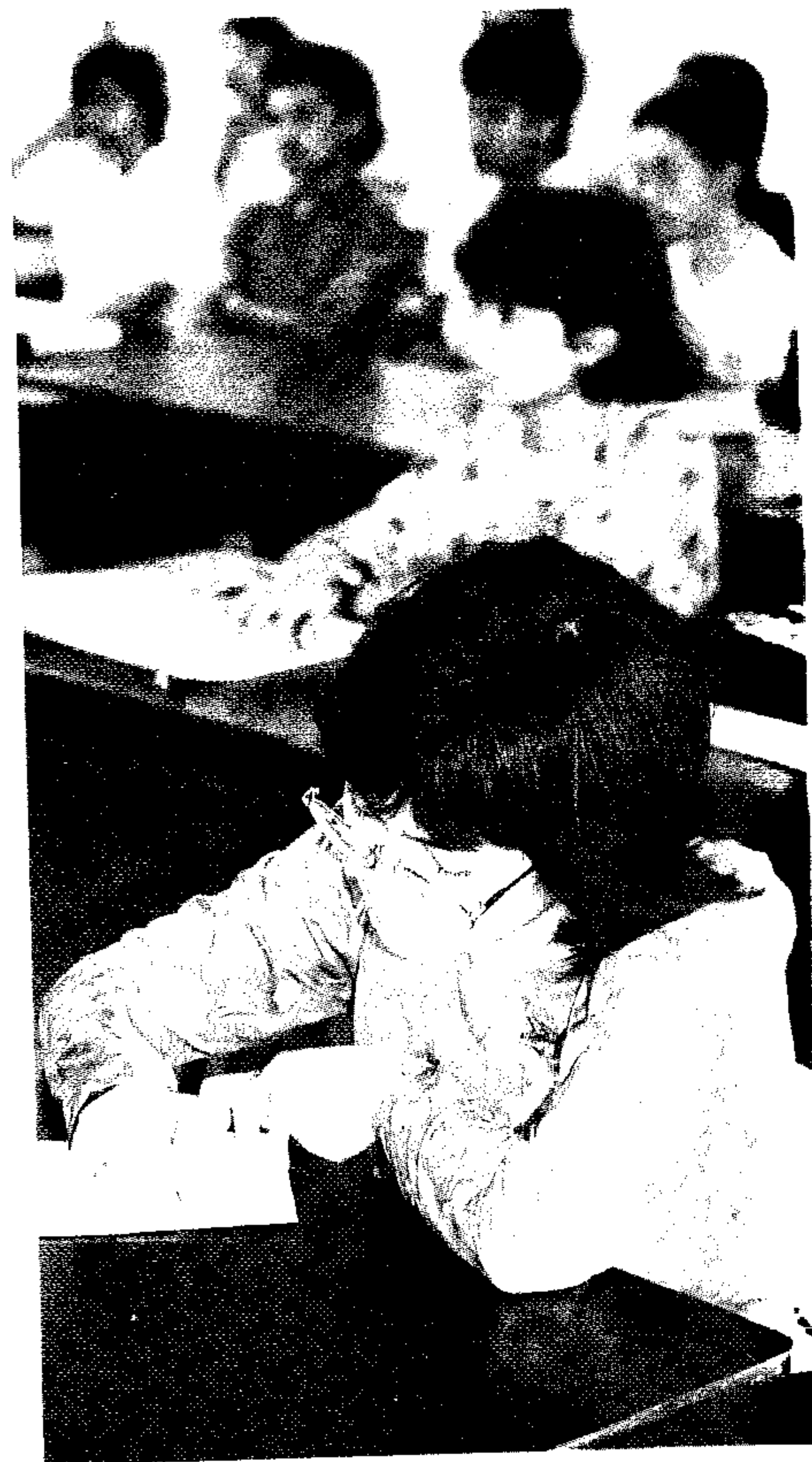
Siti

When Siti Abdul Mohammad completed three years of course work at the Institut Teknologi MARA (ITM) in Malaysia in 1983, she transferred to a competitive midwestern institution in the United States, full of expectation at entering her Junior year of studies in Business. Upon her arrival, however, she met a number of unexpected obstacles. First, after receiving the results of the school's English language test, she learned that she would have to take additional work in remedial English. She had studied English at ITM, but most of her academic instruction had been in Bahasa Malaysia, and she had not acquired all of the language skills she needed to succeed in an American classroom. Already discouraged, she also learned from an academic advisor, that some of her ITM courses would not transfer academic credit. She would have to delay her entry into the Junior level Business program to take some freshmen level pre-requisites that had not been offered at ITM. She had expected to be away from home no more than two years to finish her degree and already missed her family; now, it would take her three years to finish the degree.

Ahmad

Ahmad Mohamad Sulaiman sat with his friends in the Student Union in late August 1986, and reflected on his progress at a U.S. school. He entered the university in January 1981, as a 17 year-old, newly graduated from secondary school and full of anxiety about leaving his rural home in Malaysia. At home, people showed respect for one another; young people deferred to authority and everyone strove to achieve harmonious relations with others through formality, tactfulness, and cooperative behavior. Thus, Ahmad's first taste of American campus life had come as a shock.

In the U.S. some students bragged about not doing required readings and work while others argued with the statements of professors during class. Students were expected to assert themselves in aggressive and competitive ways that he found impossible to emulate. He knew that his reticence put him at a disadvantage in some classes but he could not adjust to the American style. His self-confidence suffered, and he felt threatened by the difficulty in observing religious obligations. In his social relationships, he associated with fellow Malaysian students and with members of the Malaysian Students Association. Outside of the classroom, virtually all of his interaction was in a Malay language and cultural environment. During his first year and a half, language difficulties and personal adjustments slowed his academic progress. By his twentieth birthday, however, he began to feel more secure about operating in both the American and Malaysian cultural environments. He would complete the B.A. degree in Computer Science in one more year—after eleven semesters of work.



Siti and Ahmad are both Bumiputra, the ethnic group that forms a majority of Malaysia's diverse population. Siti and Ahmad are on scholarships from the Government of Malaysia; both are determined to succeed and are doing so in the face of difficult adjustments. They are among the 15,000 Bumiputra students who are currently studying in the U.S. The success of students like Siti and Ahmad is an important part of Malaysia's effort at balanced national development and at tapping previously unexploited reserves of talent among the Bumiputra population of the country.

Through the ITM/MUCIA Cooperative Program, students like Siti and Ahmad can now obtain the first two years of their undergraduate studies in Malaysia. They learn from American faculty in accredited courses offered by Indiana University (IU). The program, a cooperative venture between the Institut Teknologi MARA, Indiana University, and the Midwest Universities Consortium for International Activities, offers courses in pre-business, pre-engineering, and pre-computer science. Students who successfully complete the program will transfer to upper-division programs in the U.S. with much improved prospects for completing the final two years of their studies in a timely manner.

Education and Development

Malaysia is a multi-ethnic country (see chart). More than 50% of the 16 million people of Malaysia are Bumiputra (ethnic Malay), 35% Malaysian Chinese, and 10% Malaysian Indian. Until recently, Malaysia had a rapidly expanding economy, but Bumiputra have not benefited proportionally from the economic growth and rising personal incomes. By the time Independence was achieved in August 1957, a detrimental link between ethnicity, occupation, and social class was firmly established. As late as 1971, for example, Bumiputra owned just 4.3% of the corporate equity in the country while other Malaysians owned 34%; the remainder being controlled by multi-national corporations. The concentration of Bumiputra in the poorer sectors of the

economy can be explained by many factors, but educational barriers are among the most commonly mentioned obstacles to improvement in their social and economic status. A belief in the importance of removing educational barriers underlies the government policy of upgrading educational opportunities for Bumiputra.

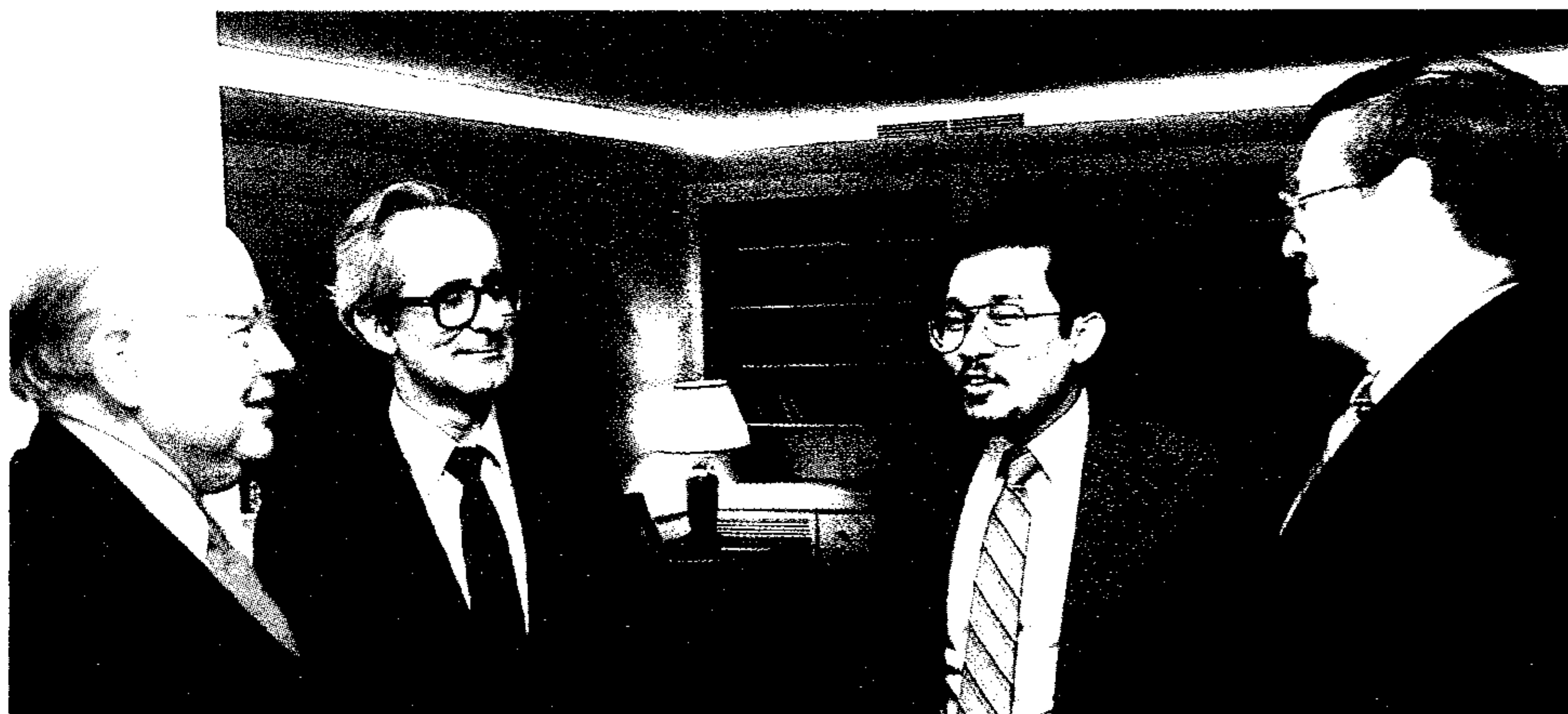
The inequitable distribution of opportunity and wealth among the ethnic communities of Malaysia created by unbalanced growth poses a threat to the country's stability. Moreover, industrialization requires a

rapid expansion of available technical expertise. Thus, Malaysia's multi-ethnic Parliamentary leadership began rethinking its national development plans. In 1971, with all major political parties participating, the National Consultative Council recommended that future development plans set as a goal the equitable participation in the economy by all members of Malaysian society. The result was the New Economic Policy (NEP), embodied in the Second Malaysia Plan, 1971-75, and enacted into law by Parliament.

The New Economic Policy

A major goal of the NEP is to achieve a 30% Bumiputra ownership of the commercial and industrial sectors by 1990 with Malaysian Chinese and Indians controlling 40%. In education, the NEP established programs for Bumiputra designed to enhance scientific, technical, and vocational skills. These programs included the establishment of the Institut Teknologi MARA and an extensive scholarship program for Bumiputra. Since 1971, Malays have made significant progress but are still well short of the goals set for 1990.





(Left to right:) Dr. John Ryan, President of Indiana University; Dr. John Lombardi, MUCIA Project Director; Encik Anwar Ibrahim, Minister of Education; Dr. James Weigand, Dean of IU's School of Continuing Studies.

Higher education plays a central role in the achievement of the national development goals articulated in the NEP. Although the 1970's expansion of educational opportunity was one of Malaysia's success stories; some problems remain. In 1985, 13,200 of the 92,000 primary school teachers in the country were undertrained, and there were an additional 2,300 graduate teachers needed in the upper secondary and post-secondary levels. Particular shortages of experienced teachers exist in the areas of physics, chemistry, mathematics, and English. There are now a total of only 22,400 post-secondary students attending certificate, diploma or degree level programs in Malaysia ("New Straits Times", March 23, 1986). This enrollment is far short of the number of students who are qualified for these forms of post-secondary education.

The Fifth Malaysia Plan (1986-1991) calls for expansion of the elementary, secondary and post-secondary system in Malaysia to meet these educational needs as well as the demand for technically skilled workers in the private sector. However, for the foreseeable future, it would appear that Malaysia will have to continue to send many of its young people overseas if the nation's manpower goals are to be met.

The Costs of Overseas Education

Because there are 30,000 Malaysians eligible for university level

"... any program for development ... would have to include the commitment to eradicate mass poverty, the respect for human dignity, and the encouragement of people's participation at all levels towards self-reliance and national resilience ..."

Anwar Ibrahim
Minister of Education
Sojourn 1986 (1)

admission each year and only 7,000 openings available in Malaysia, many students must be sent overseas for further study at considerable expense to the government. Beginning in 1978, the number of Malaysians going abroad to study increased at an average rate of nine per cent per year. The largest number went to the U.S., with nearly 15,000 Bumiputra students, as previously noted, on government scholarships at U.S. universities in 1985. The number of overseas students in Great Britain and Australia, as well as the U.S., resulted in an outflow annually of M\$ 1.2 billion. The government spends an



average US\$ 13,000 per student annually for housing, living expenses, tuition, insurance, and other costs to sponsor a student in the U.S. With the drop in world prices for oil and other Malaysian exports, the Government is compelled to search for ways of reducing the costs without abandoning its commitment to develop Malaysia's human resources.

Declining Success Rates

In the late 1970's and early 1980's, a problem with academic "success rates" also began to surface. A 1983 survey of campus Foreign Student Advisors conducted by the National Association

of Foreign Student Affairs (NAFSA) and its *ad hoc* Study Group on Malaysian Students, for example, revealed an erosion of the academic success rate of Malaysian students at U.S. institutions over the previous two or three years. This same trend was noticed by the Jabatan Perkhidmatan Awam (JPA – Public Services Department)—one of the primary scholarship agencies in Malaysia. Many of the students experiencing academic difficulties in the U.S. came from inadequately staffed and equipped secondary schools in rural Malaysia where the medium of instruction was Bahasa Malaysia and in which English, though a required subject, was seldom spoken outside of class.

In addition to insufficient English language preparation, recent cohorts of Bumiputra students have experienced more psychological and social problems than their predecessors during absences in the U.S. Most Bumiputra who go directly to the U.S. from secondary school are 17 years old and not well equipped to adjust to a foreign culture. For many of these students, the U.S. appears to be an intimidating, impersonal, and dangerous place to live. As a result, Bumiputra students in the U.S. tend to socialize together to such an extent that many rarely use English outside of the classroom. Malaysian educators feel that homesickness and disorientation among these young students hinders their academic performance and leaves them unable to evaluate the new beliefs and ideas that they sometimes encounter. If the students could transfer at age 19 or 20, after attending a U.S. style campus in Malaysia, they would be better prepared to handle the cultural adjustments and would not have to be absent from home so long.

The "Twinning Concept"

As noted earlier, the Government of Malaysia is searching for ways to reduce the high costs engendered by sending so many students abroad. In late 1982, Malaysia's Prime Minister, Datuk Seri Dr. Mahathir Mohamad, proposed in-country training for students prior to their departures overseas. This idea was taken up by



Dato Ahmad Sarji, Deputy Director General of the Jabatan Perkhidmatan Awam (JPA) which sponsors most of the Malaysian students in the U.S., Australia and Great Britain. Instead of having students take English language training overseas during their first year abroad, Dato Sarji approached ITM about conducting these pre-university language studies in Malaysia before their departure. The idea was then expanded to include the first two years of an American university curriculum in Malaysia with American professors and came to be known as the "twinning concept". This would reduce costs and allow students to mature and adjust to American classroom expectations before transferring abroad. In addition, it was hoped that such an arrangement would shorten the time that students must spend abroad. Out of this concept, grew the ITM/MUCIA Cooperative Program in Malaysia.

"If the students could transfer at age 19 or 20, after attending a U.S. style campus in Malaysia, they would be better prepared to handle the cultural adjustments and would not have to be absent from home so long."

Genesis of the ITM/MUCIA Cooperative Program

The Search for Solutions

The dilemma facing the Malaysian Government is how to maintain large numbers of students in high quality academic programs while reducing the drain of foreign exchange to cover overseas educational costs. One possible alternative would be to expand the size and number of universities in Malaysia. The Fifth Malaysia Plan is taking measured steps in this direction. As more Malaysians return with the qualifications to fill faculty positions, Malaysian universities and technical schools will be expanded to enroll larger numbers of students. However, Malaysian leaders recognize that a too rapid expansion of higher education in Malaysia carries the risk of diminished quality in its programs and graduates (cf. *New Straits—Times*, October 15, 1986) and have opted, instead, for a gradual increase in university and technical programs. In the meantime, many thousands of Malaysian students will be unable to gain entry into institutions of higher education unless they go abroad.

A second alternative is to give Malaysian students access to an "overseas education" in Malaysia for at least two years before sending them abroad. This is the crux of the "twinning concept." Its precursor in Malaysia is a longstanding "joint degree" program between ITM and Ohio University (OU). Students who completed the three-year diploma programs at ITM spend an additional two years in the OU Bachelors degree in Business program to obtain their BA degree locally.

Another implementation of the twinning concept, employed at two other institutions in Malaysia, is to adopt curricula from the U.S. while keeping full control of staffing and instruction in Malaysian hands. The government sponsored Maktab Sains MARA (also known as MARA Community College) in Kuantan enrolls 1,500 students in a curriculum patterned after Lincolnland

"The dilemma facing the Malaysian Government is how to maintain large numbers of students in high quality academic programs while reducing the drain of foreign exchange to cover overseas educational costs."

Community College in Illinois. In the private sector, the Kolej Damansara Utama (KDU) adopted the curriculum of Broward Community College in Florida.

Building upon these early efforts, the government defined the needs of special preparatory programs for U.S.-bound students as envisioned in the "twinning concept": (1) a general orientation to life and study in an American campus and community environment; (2) intensive English instruction; and (3) academic coursework in appropriate lower division courses accredited by U.S. colleges and universities. The accreditation and transferability of coursework done in Malaysia was and is a matter of much concern for the Government. Over the years many students had not received more than partial credit at U.S. institutions for work done at ITM in spite of the high quality of ITM's diploma courses. When students must take three or four years to finish a two-year upper division program, the per student cost of study in the U.S. is obviously raised. Discussions on possible U.S.-Malaysia linkages began in October 1982, during a visit to Malaysia of Dean Kenneth Rogers of Indiana University to ITM and the five national universities of Malaysia. At ITM, these discussions were held with



Mr. Nik Abdul Rashid Abdul Majid, Director; Dr. Mohamed Thalha, Head of the Center for Planning, Research and Consultancy, and other ranking ITM administrators.

Four requirements for a U.S. program in Malaysia

Over the following year attention at I.U. turned to defining the necessary characteristics of joint U.S.-Malaysian higher education programs. Four requirements emerged for the establishment of a successful large-scale U.S. program in Malaysia. First, such a program would require the cooperative efforts of a group of universities, with previous experience in overseas technical and educational programs, working together in an established consortium. The complexities of delivering an academic program to large numbers of students overseas requires institutional commitments at the highest levels from each university within a consortium. Without the support of university presidents and other chief academic officers, no association of universities formed to participate in the Malaysian undertaking could ensure the continuing support and cooperation of its participating schools.

Second, the academic work done in Malaysia would have to be from a single, accredited university, e.g. one

"The complexities of delivering an academic program to large numbers of students overseas requires institutional commitments at the highest levels from each university within a consortium."

member of a consortium, whose transcripts are widely accepted by other universities in the U.S. These credits would have to be issued on the regular transcripts of the university in order to affirm that its faculty guaranteed the academic quality of the coursework done in the university's name; any other arrangement would jeopardize the transferability of coursework. Credits would not be recognized or accepted for transfer by most universities in the U.S., for example, from any overseas program that created and issued its own transcripts—even though it might have faculty from accredited U.S. universities. Such an arrangement would be viewed in the U.S. as a separate program without sufficient academic controls from an accredited university to underwrite the program's quality.

Third, since the university offering the academic program in Malaysia would validate coursework, it would have to establish measures to ensure the continuing quality of its academic standards, coursework, and faculty. This would be achieved by an academic program whose syllabi and faculty were controlled by regular academic departments within the university. Thus, syllabi prepared for Malaysian students would be

comparable in content and standards to the same courses offered in the U.S. Since the academic department would also review all faculty applicants for the program, it would ensure that only qualified faculty were hired.

Finally, the university administering the program would undertake the placement of students completing its curriculum in Malaysia. It would handle the process of compiling and submitting student dossiers for placement at appropriate universities. This would be done so as to distribute students throughout the U.S. to avoid the concentration of large numbers of students in a few universities.

Discussions with ITM

Because of the size of the programs being contemplated, no one university would be in a position to enter into a strictly bilateral relationship with ITM. Accordingly, Dean Rogers recommended the Midwest Universities Consortium for International Activities (MUCIA) (See Appendix A) as an organization that had already demonstrated a capacity to deliver large scale educational and other development projects in Indonesia and elsewhere in Southeast Asia. With eight member institutions and many regional campuses, MUCIA could recruit the necessary faculty and prepare the needed courses.

In 1983, these ideas were brought to the NAFSA Conference in Cincinnati by Secretary General Othman Malek of the Ministry of Education and Dato Sarji of the JPA. They also visited the MUCIA executive office where they met with MUCIA Executive Director William Flinn, and representatives of Indiana University. A special goal articulated by Malaysian Government representatives was the need for wider dispersal of Government-sponsored students among universities in all parts of the U.S. At the time, although Malaysian students were enrolled at more than 400 institutions in 43 states, more than half of them attended a handful of institutions in 9 states. Throughout these and subsequent discussions, the NAFSA Study Group on Malaysian student concerns was consulted for

suggestions on how the projected two-year programs might maximize their effectiveness.

Following an invitation from Dr. Mohamed Thalha to pursue more detailed discussions, Dean Rogers and Dr. James Weigand, Dean of the IU School of Continuing Studies, traveled to Malaysia in early 1984 to meet with ITM administrators and other interested Malaysian Government officials. These discussions affirmed the feasibility of "importing" two-year U.S. university programs. Deans Rogers and Weigand promised that such a program, if delivered by IU (on behalf of MUCIA), would assure credit transferability because it would be offered and controlled by academic departments at Indiana University, transcribed by the Registrar at IU, and delivered by IU's School of Continuing Studies.

A detailed proposal was subsequently presented in June, 1984 to a visiting Malaysian delegation at the NAFSA Conference in Snowmass, Colorado, headed by Tan Sri Othman Malek. ITM was represented in these talks by Mrs. Habibah Salleh, Mrs. Hazariah Dahan, and Dr. Thalha with Tan Sri Othman Malek, Secretary General of the Ministry of Education, and two representatives of JPA as official observers. In addition to outlining Indiana University's and ITM's responsibilities for the program, the proposal included plans for a placement service to assist students in transferring to U.S. schools when ready. In August 1984, Dr. Robert Shaffer of IU, traveled to Malaysia for several weeks as a consultant at ITM. His reports were instrumental in speeding the process of refining the project proposal. Finally, in late October 1984, IU President Dr. John Ryan, accompanied by Dr. John Lombardi, MUCIA Board member, Dr. Lawrence Keller, Director of Extended Studies, and other IU and MUCIA representatives went to Malaysia to complete a contractual program agreement between ITM and MUCIA. The agreement was signed by MUCIA a month later, and by ITM in January 1985. The first classes convened on June 25, 1985, at the new ITM/MUCIA Center in Shah Alam near the main ITM campus.

The Program's Design

The ITM/MUCIA Cooperative Program

The concept of the ITM/MUCIA Cooperative Program is simple. Instead of transporting large numbers of Malaysians directly to the U.S. for their first two two years of coursework, the ITM/MUCIA Program brings the necessary courses and faculty to the students in Malaysia. Indiana University, as the lead institution, implements the program.

The major tracks offered are in the areas of pre-business, pre-engineering, and pre-computer science. The courses are standard freshman- and sophomore-level offerings with content and standards comparable to those of Indiana University; entering students are required to meet Indiana University admissions requirements. The academic quality of the program is insured by syllabi written and approved by the regular academic departments at Indiana, and by drawing upon regular faculty of MUCIA member institutions. These include the universities of Illinois, Indiana, Iowa, Michigan State, Minnesota, Ohio State, Purdue and Wisconsin. Those students who successfully complete the two-year curriculum will be placed by the program's Placement Service in appropriate colleges and universities in the United States to complete their undergraduate program.

The Institut Teknologi MARA, as the Malaysian partner, provides administrative support in Malaysia through its Kolej Pengajian Persediaan (KPP—College of Preparatory Studies). Operating under the Ministry of Education in Malaysia, ITM is a multiple-campus institution of higher learning. The concerted efforts of the staff of ITM and KPP assured that the facilities of the ITM/MUCIA Center in Shah Alam were readied in time for the start of classes in June 1985.

From its inception to the beginning of 1987, the day to day operation of the ITM/MUCIA Center in Shah Alam was directed by Mrs. Habibah Salleh. She and her KPP staff, in addition to pre-screening the students before their

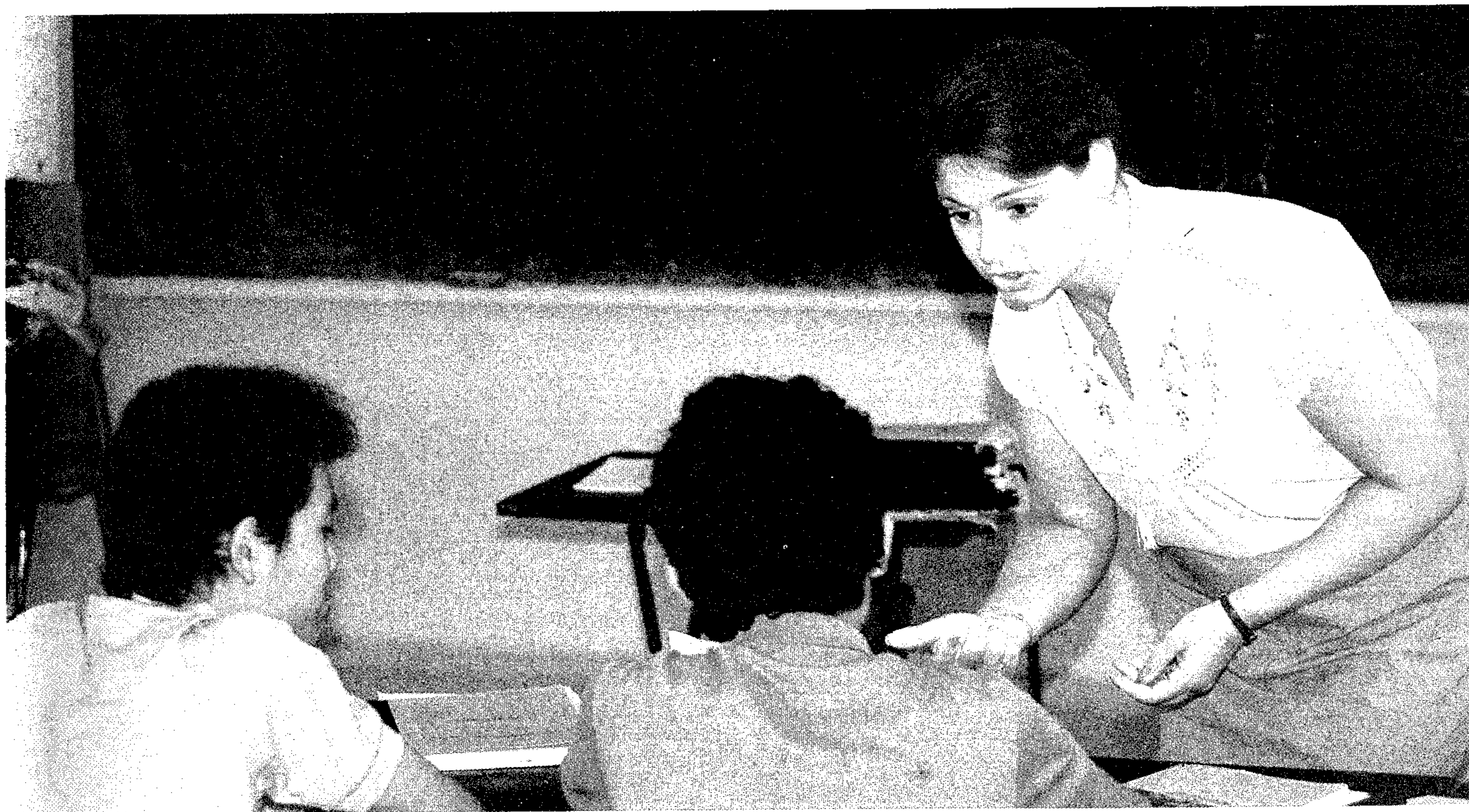


Student reporter
interviewing entering
ITM/MUCIA Center student:

"As for the change to the American system and the interaction between professor and students she had this to say, 'I think its really good. There's more communication between students and their professors. What's more I feel as though I'm treated as an adult, I feel much older and more responsible . . .'

Lastly, I asked her what she thought of the Program on the whole, especially what she thought about having to stay in Malaysia for two years before leaving for the States: 'I think its a good Program. Staying here for another two years will help us to be more mature, more experienced. So we will be well prepared when we leave for the United States.'

INDIANENSIS—HERALD
Vol. 2, No. 2, November 22, 1987



Ms. Susan McIntyre, Study Skills Instructor.

application to the Program, supervised the KPP language remediation program, administered housing for both faculty and students, ensured that physical facilities were functioning efficiently, handled all issues of student conduct other than purely academic matters, and carried out essential terms of the agreement between ITM and MUCIA. These duties are now the responsibility of Tuan Syed Abdul Kader Al-Junid who assumed the headship of KPP in mid-January 1987.

The Center's student body consists of recent graduates from government high schools throughout Malaysia, selected in a national screening process on the basis of preparation in mathematics and science. Those ITM/MUCIA students who satisfactorily complete the full complement of courses will be awarded the Indiana University Associate of General Studies Degree through IU's School of Continuing Studies. Moreover, completion of the two-year program allows these students to transfer directly into upper division programs at U.S. institutions by improving their language and study skills and

providing the requisite foundation of academic coursework.

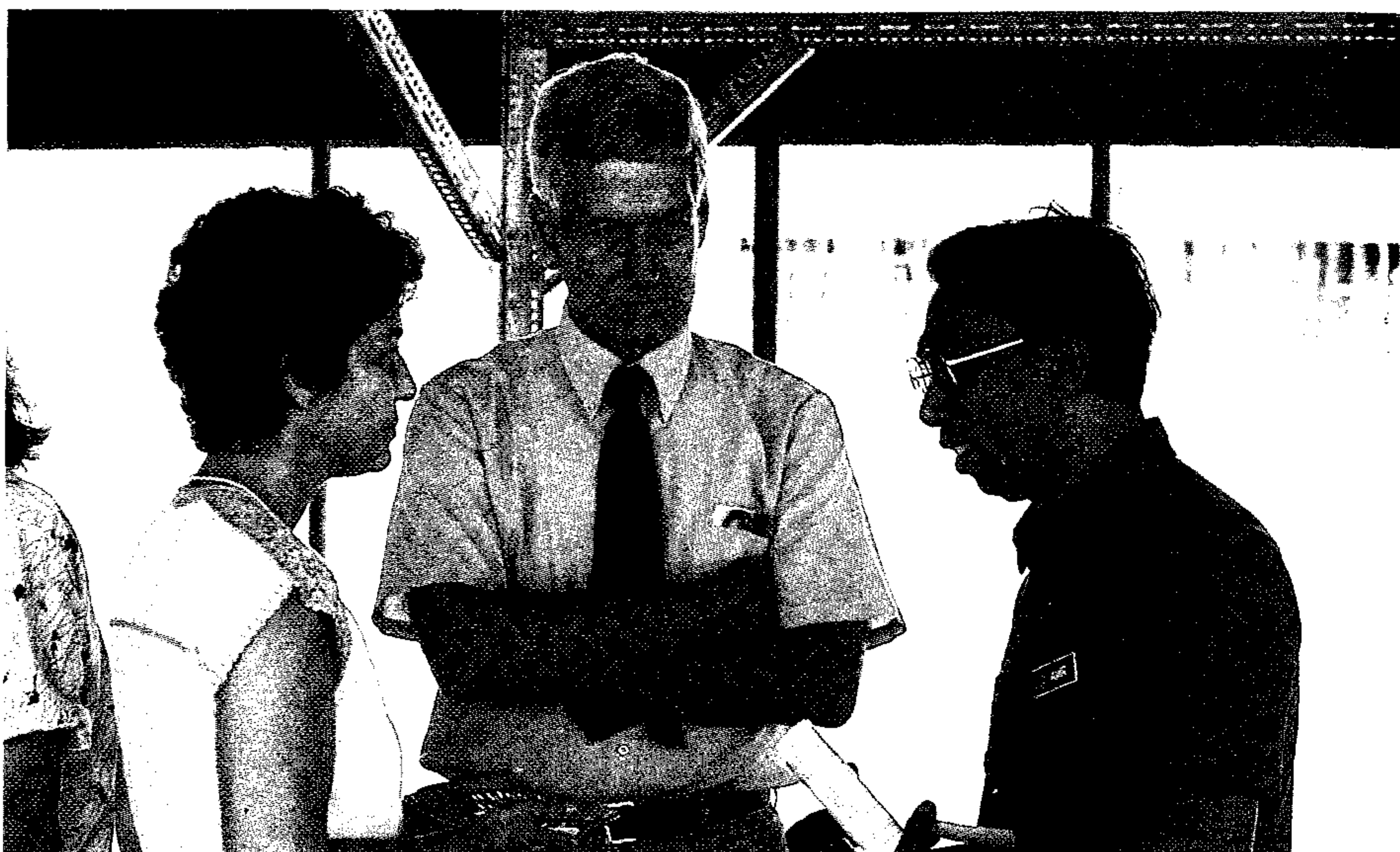
Students who transfer to the U.S. after completing the two-year ITM/MUCIA program will have three advantages. First, they will transfer with the maturity of nineteen and twenty year-olds better able to cope with the stress of adjusting to a new, urban culture. Second, as transfers, their Indiana University credits will be accepted at other U.S. institutions. They will begin with advanced standing because most or all of the pre-requisite courses for their majors will have been completed. Third, they will be able to finish their studies in the U.S. more quickly and thereby save their government added expenditures. Instead of trying to cope with a new academic system while at the same time confronting a new culture, they will have already had two years to adjust to the requirements of university level instruction in the U.S. Thus, with the ITM/MUCIA Cooperative Program, the Government of Malaysia is able to offer quality undergraduate instruction to Malaysian students while also realizing savings.

"The concept of the ITM/MUCIA Cooperative Program is simple. Instead of transporting large numbers of Malaysians directly to the U.S. for their first two years of coursework, the ITM/MUCIA Program brings the necessary courses and faculty to the students in Malaysia."

The Administration



(Foreground:) Datok Hj. Mansor Bin Hj. Salleh, Director of ITM.



(Left to right:) Ms. Pat Biddinger, Director of Student Services, and Dr. Jack Hopkins, ITM/MUCIA Provost, conferring with Dr. Amir Awang, Deputy Vice Chancellor of the Universiti Sains Malaysia.

The administrative structure of the ITM/MUCIA Cooperative Program is complex. It is necessarily so in order to respond to the legal and structural requirements of institutions in both Malaysia and the United States. Administration is designed to bring the appropriate personnel into decisions at the appropriate time. It was in this exercise that the cooperative nature of the program has been the most challenging and the most rewarding.

On the Malaysian side, the program is managed by the Institut Teknologi MARA, which has assigned administration of the program to the Kolej Pengajian Persediaan (KPP). The KPP provides a substantial Malaysian staff that has responsibility for providing and maintaining the facility, procuring all supplies, providing various support services for MUCIA faculty in Malaysia, and providing student support services relating to housing, financial aid, religious instruction and discipline.

Contract Administration

As the prime contractor with the Malaysians, MUCIA retains responsibility for auditing expenditures, submitting financial

reports to Malaysia, ensuring that the terms of the contract are carried out, and in reviewing procedures for compliance with previously established guidelines for MUCIA projects. Each major MUCIA program is managed by a lead institution selected by the Board of Directors. The lead institution then becomes the Consortium's operating agent for the program with responsibility for all aspects of project management and operation. From time to time, usually monthly, the lead institution will report on the progress of the project to the Board of Directors. Final responsibility for project performance remains with MUCIA's Board of Directors and ultimately its Council of Presidents. Indiana University has been selected to assume the lead for the ITM/MUCIA Program.

At Indiana University, the Office of International Programs (OIP) typically assumes responsibility for all MUCIA subcontracts. However, this contract required that students be enrolled as Indiana University students in a regular academic program, and this function can only be carried out by a School within the University. The School of Continuing Studies was selected as the academic home for the

ITM/MUCIA students in Shah Alam. The School of Continuing Studies offers among others, the Associate of General Studies degree, which students will earn upon successful completion of the program. It is responsible for admission of students, selection of faculty, approval of curriculum, preparation of syllabi (all of which occur in cooperation with the relevant academic departments) and maintenance of student records.

The Office of International Programs manages the contract itself and is responsible for providing MUCIA with financial and performance reports. OIP handles the logistics of sending faculty and families abroad, provides orientation and support services, recruits faculty candidates with the aid of MUCIA Liaison officers, and provides for the placement of students at U.S. institutions at the end of their studies in Malaysia.

All expenditures made under the ITM/MUCIA agreement proceed through the Indiana University accounting system; therefore, the same safeguards exist for contract funds as for regular IU expenditures; e.g. purchases are made through the IU Purchasing Department with bids



Office Staff in Shah Alam. (Left to right:) Siti Mari, Rohana Wok and Zeinab Karim.

solicited and evaluated before purchases are made. Every expenditure is evaluated twice for relevance and reasonableness under the contract by the program's Financial Officer and by the University Auditor. In addition, financial reports are periodically submitted by the Financial Officer to MUCIA and through the Treasurer's Office of MUCIA to ITM.

The Provost

All three U.S. administrative units—MUCIA, the Indiana University School of Continuing Studies and the Indiana University Office of International Programs—come together in the person of the Provost of the ITM/MUCIA Cooperative Program. The Provost serves both as the Chief Academic Officer and as the Chief of Party of the ITM/MUCIA Cooperative Program. As the Chief Academic Officer, the Provost is an Indiana University administrator responsible for the integrity and implementation of all academic aspects of the program on site. The Provost is the highest academic authority for the program in Malaysia, and is the academic liaison between the program in Shah Alam and the

appropriate Indiana University schools and departments. As Chief Academic Officer, the Provost reports to the President of Indiana University.

As Chief of Party, the Provost is responsible for maintaining relationships with Malaysian counterparts at ITM, the Shah Alam campus, the Ministry of Education, JPA and other appropriate Malaysian authorities. In addition, the Provost is responsible for executing terms of the ITM/MUCIA contract that govern the operations of the program, and thus reports to the MUCIA Board of Directors.

Faculty Governance

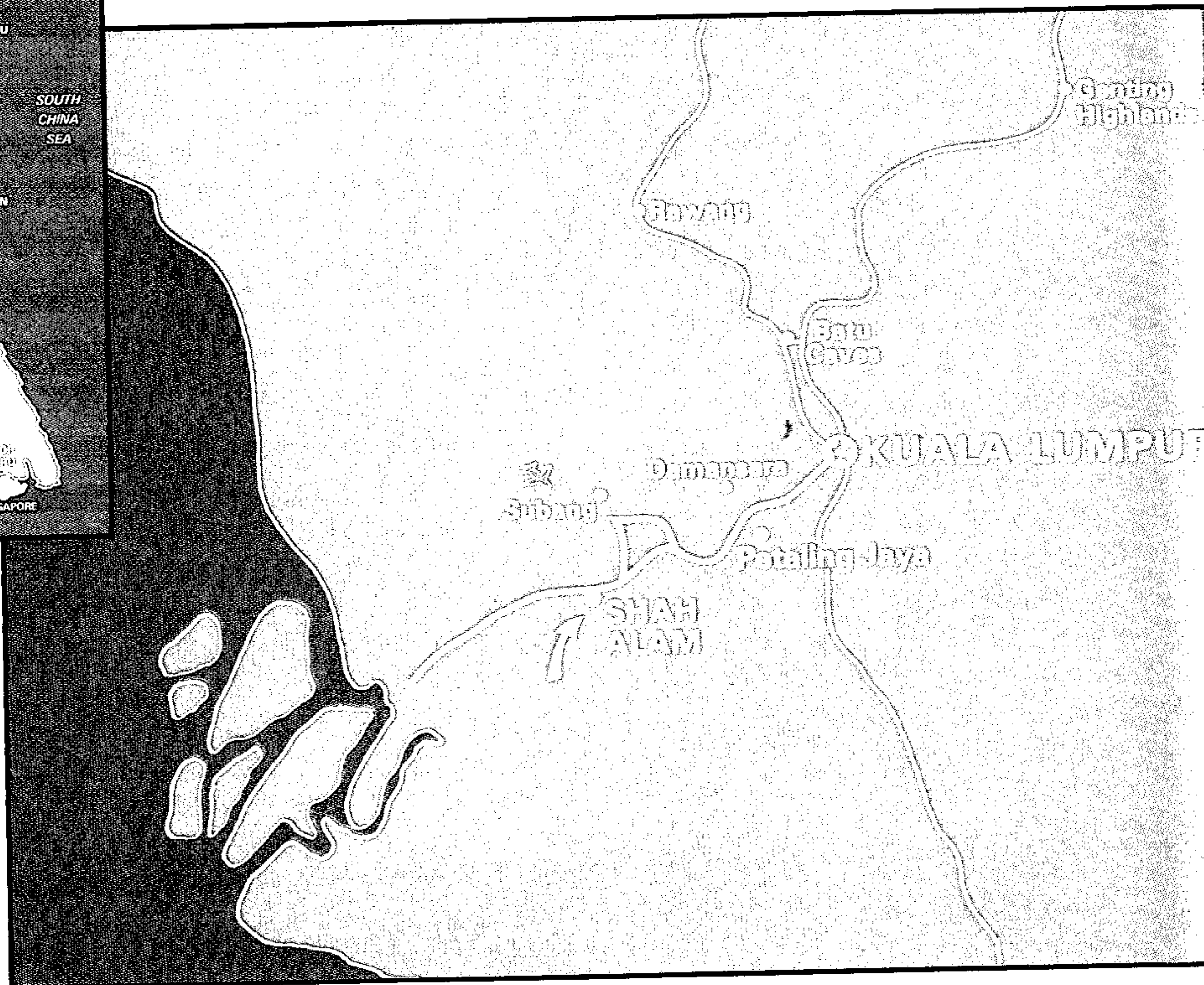
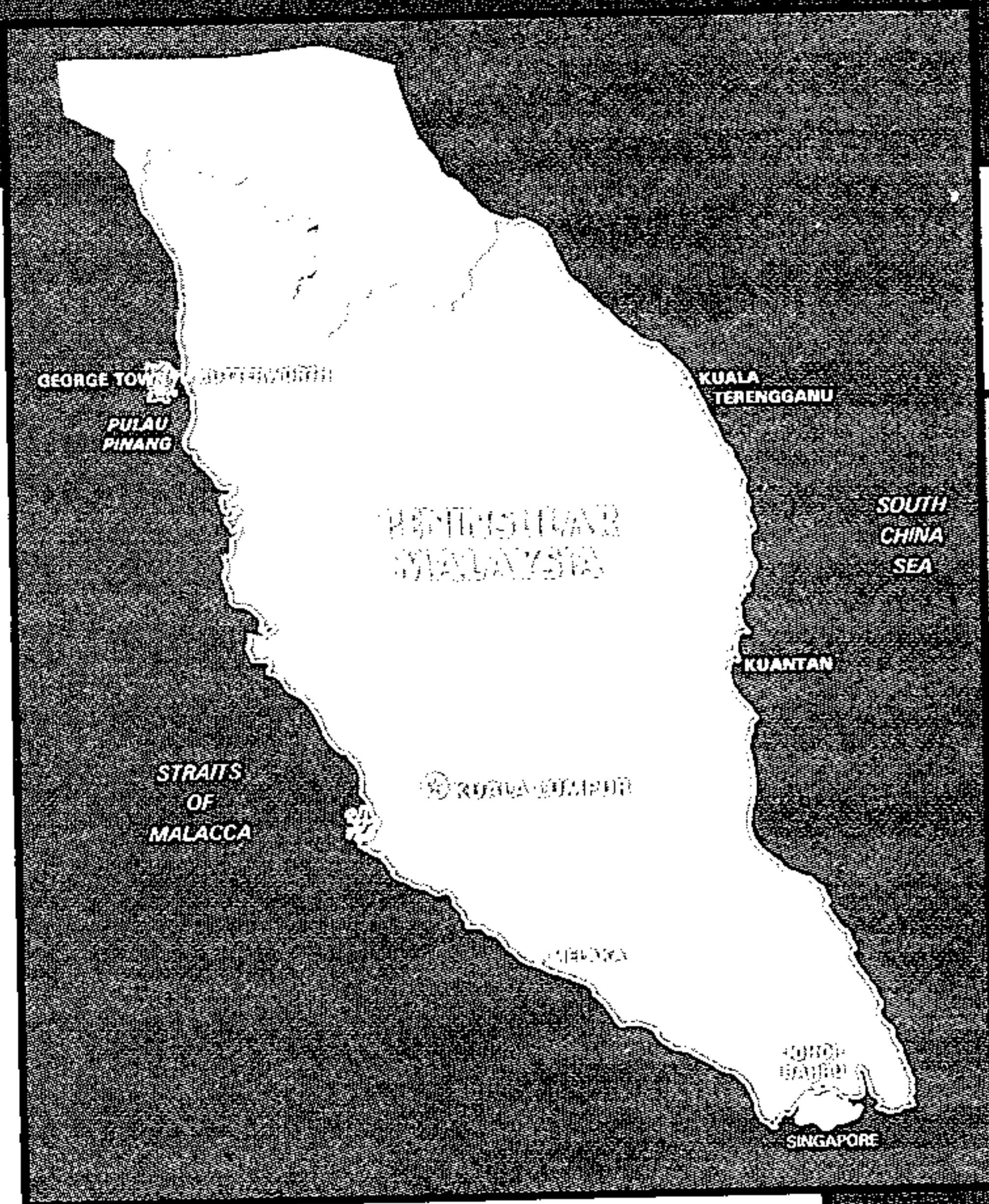
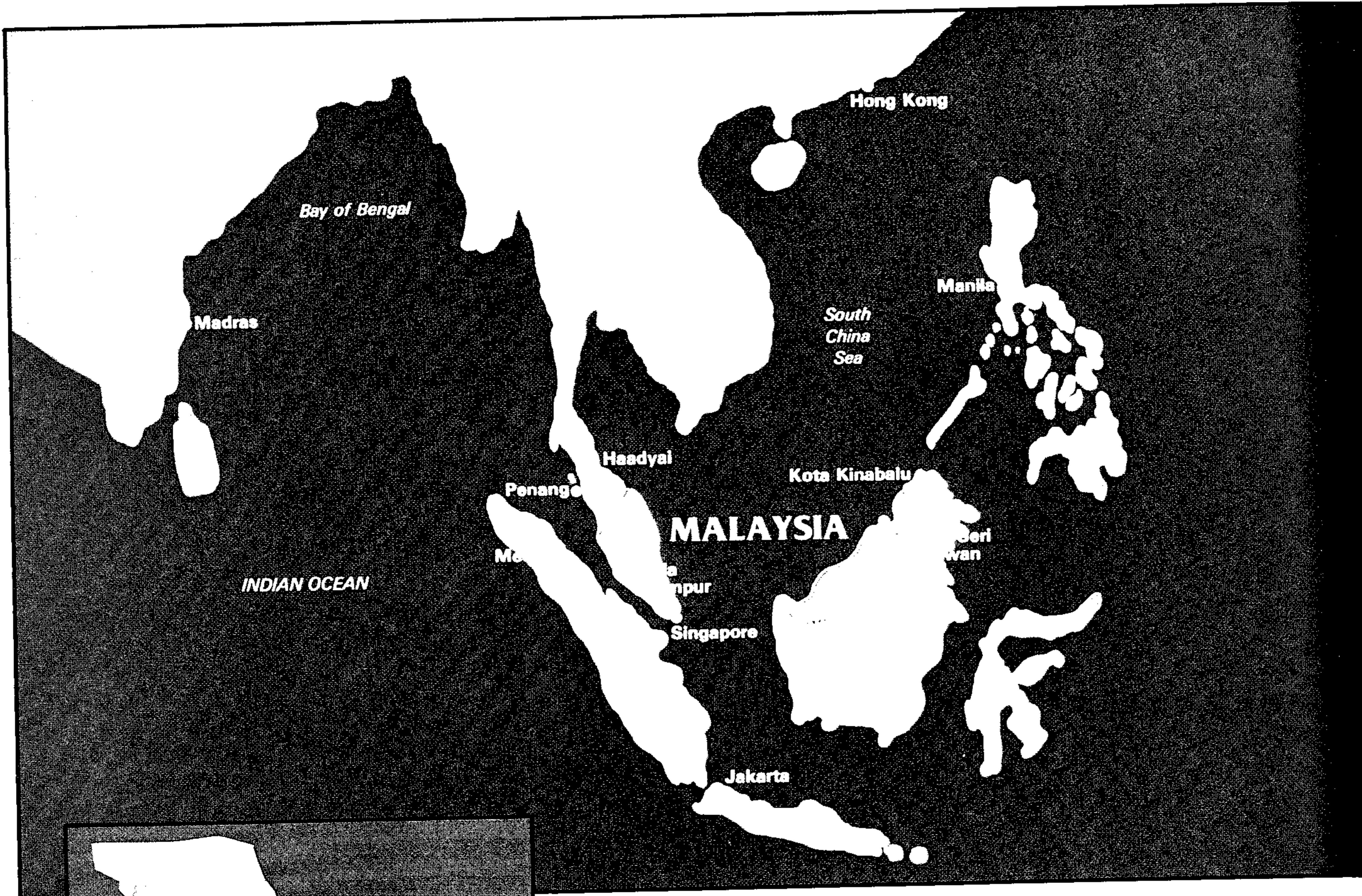
The Provost supervises the performance of the faculty on site. While on assignment in Malaysia, however, the faculty are required to accommodate to a different approach to faculty governance than on their home campuses. Faculty with the ITM/MUCIA Cooperative Program are governed by the terms of their individual contracts, by the terms of the general agreement between ITM and MUCIA, and by the academic requirements of Indiana University. At Indiana University, the program reports to the President and works

through a council of academic deans.

In Malaysia, the ITM/MUCIA faculty are organized into disciplinary groups (Math, Study Skills, Chemistry, English, etc.) as determined by the Provost. Each group has a coordinator responsible for scheduling, evaluating the need for curricular revision, tracking student progress, reporting student difficulties, class assignments, and other academic matters in the operation of the program. These groups are not academic departments, however, because the final authority for courses in Shah Alam belongs to the academic departments of Indiana University.

The Area Coordinators meet regularly with the Provost to discuss the operation of the academic program, and develop proposals for improvement. Requests for changes in curriculum must be submitted to the School of Continuing Studies by the Provost on behalf of groups or individual faculty. Academic issues related to the conduct of the ITM/MUCIA Program in Malaysia are resolved by the Provost after discussion with the Area Coordinators and involved faculty as appropriate. While any decision can be appealed to the School of Continuing Studies, the MUCIA Project Director, or the MUCIA Board, the Provost's decisions on these matters is regarded as final in all but the most exceptional circumstances.

While it is comparatively easy to write a description of an administrative structure that sets forth discreet responsibilities to various units, the day to day operation of the complex program provides numerous examples of gray areas, questions unanswered by the organizational chart, and problems that must be addressed by everyone at the same time. The description of the program that follows will offer insights into some of these. Clearly, the accomplishments of the first two years could not have been realized without cooperation, flexibility, and often a sense of humor on the part of administrators who must bring life to the organization chart. Appendix D provides a list of the administrative positions, their location within the project, and the names of those who have served.



The ITM/MUCIA Center Shah Alam

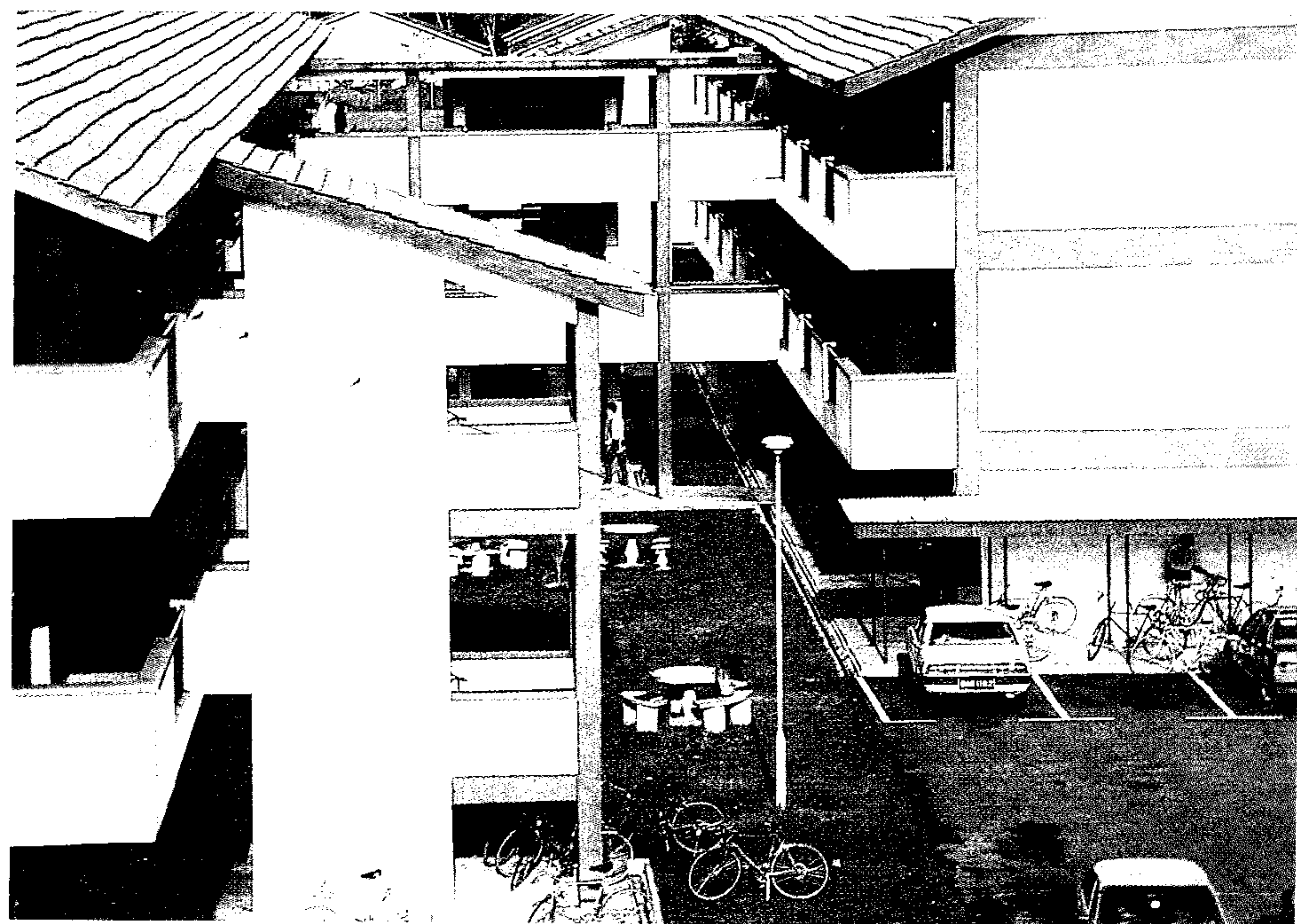
The ITM/MUCIA Center is located in Shah Alam, a city of 80,000, 24 kilometers from Kuala Lumpur, the national capital (see map). The actual site of the ITM/MUCIA Center in Shah Alam is 1.6 kilometers from the main campus of the Institut Teknologi MARA (ITM) in a predominantly industrial area of the city. Shah Alam is a planned city established in the last decade as the capitol of the state of Selangor.

Ms. Pat Biddinger, appointed Director of Student Services for the ITM/MUCIA Program, was the first American staff member to arrive in Malaysia in March 1985. With Mrs. Habibah, her deputy, Mr. Sahol Hamid, and later, Provost Jack Hopkins; the four began the on site planning necessary to implement the ITM/MUCIA Program. One major concern was outfitting the chosen facility to meet the needs of the undergraduate program.

The Challenge

The site for the Center, originally intended to house a residential secondary science school, had never been occupied when it was obtained by ITM in 1984. The eight buildings at the site designated for ITM/MUCIA use face one another in a quadrangle on the northern half of the facility, a short walk from the students' residences. Buildings on the southern half of the campus are set aside for other ITM programs.

Due to open in three months, the buildings were not yet equipped in March 1985 with the usual accoutrements of a campus. Although the classrooms contained blackboards, there were no desks or telephones, and no air conditioning for laboratories and library. There was little office equipment, and no xerox machine, or audio-visual room. Moreover, the power supply had been engineered for a secondary school rather than an undergraduate college. Power needs of the new center included sufficient capacity for air conditioning, and



enough power to run a full fledged computing center.

From Deserted Facility to Campus

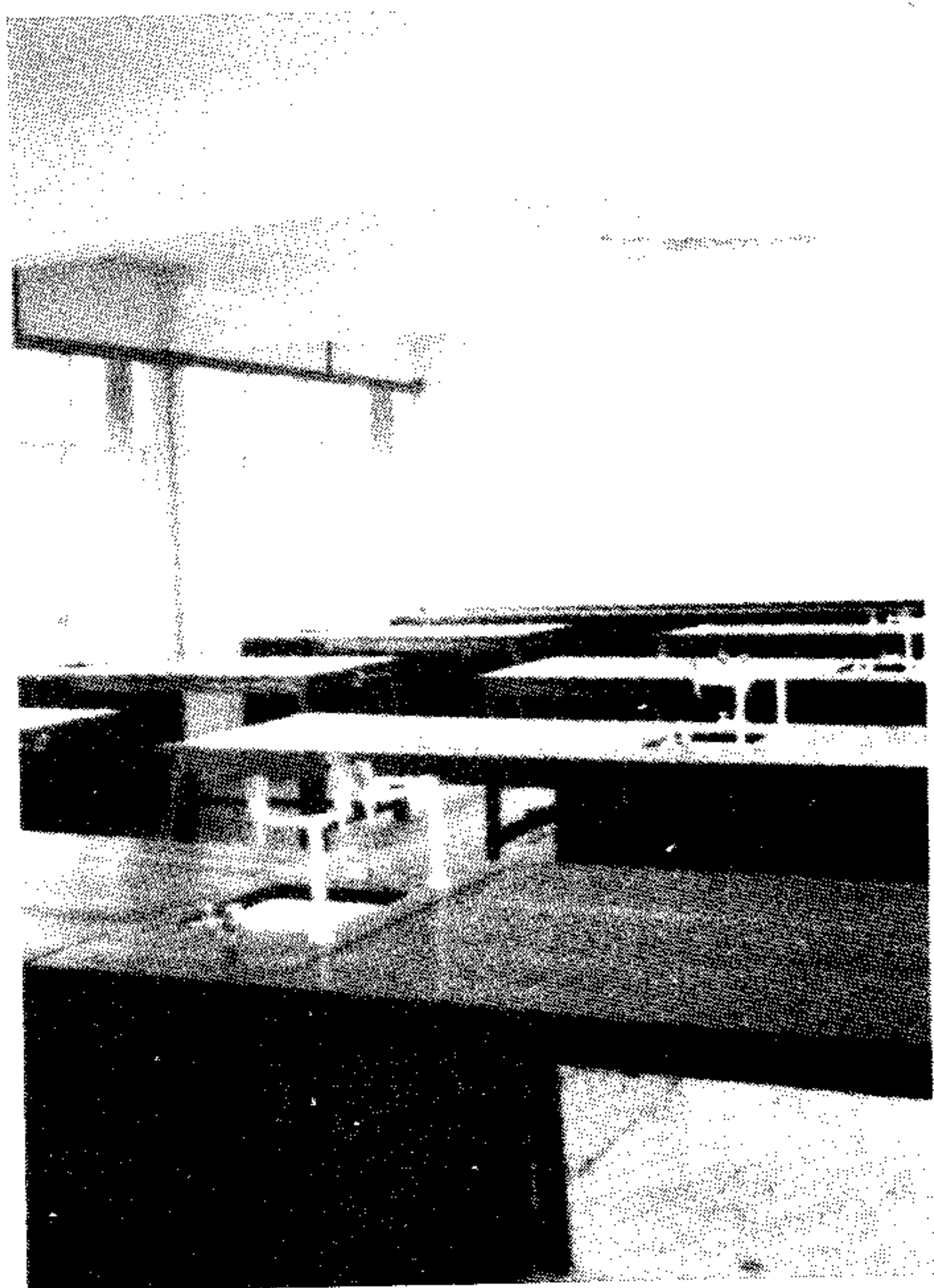
Although time was short, the staff at ITM proved equal to the task. Grateful thanks are owed to them for their patience and cooperation. At the end of March, Ms. Biddinger wrote to the program's staff at IU that "Mrs. Habibah continues to be a miracle worker and the school is showing signs of life—telephones to be installed on Monday, office equipment arriving daily—the North section is currently being used for English Immersion classes and lunch is served to the students across from the main administration building."

By the end of March, Mr. Sahol reported that bids had been let for 50 IBM PCs for the Computer Science lab, and the order process set in motion for the VAX 11/780 mainframe computer. Three classrooms were being converted to faculty offices. The plan provided that faculty members would have offices equipped with a five foot desk with three lockable

drawers and three foot book shelves. Mr. Sahol and the KPP staff were even thoughtful enough to provide seven foot high office dividers for the taller Americans. The offices were lit with both natural and fluorescent light and were additionally wired with outlets for table lights.

The ITM/MUCIA support staff (Appendix D) began work at the beginning of April. The Campus Coordinator, Nik Rasli, and the Administrative Assistant to the Provost, Ms. Kamariah Haji Jaafar, were instrumental in readying the Center. Kamariah was a valuable aid to the first Provost, Dr. Jack Hopkins and continues in that capacity with the current Provost, Dr. Roy Jumper, of the IU School of Public and Environmental Affairs.

Provost Hopkins took up residence at the Center in May and the first group of faculty, composed of 20 English and Learning Skills instructors, arrived in early June. Classes began on June 24 with 434 students. Prior to the beginning of classes, ITM and MUCIA personnel worked tirelessly on a thousand details including textbook orders,



student admissions forms, scheduling, classroom supplies, work permits for faculty, housing for faculty, record keeping systems, telex equipment, an academic calendar, and an in-country orientation for new faculty. In the end, these efforts were rewarded by the start of English language classes on schedule on June 25, 1985.

In a report to Provost Hopkins on June 28, Ms. Biddinger wrote: "We have completed the first week of classes with considerable success . . . Class rosters and student schedules were ready, all faculty and most students arrived, classes began on schedule, classroom furnishings were in place and all classes were held . . . Kamariah maintained her high energy level providing assistance to everyone. Siti has become the Student Services Receptionist and is increasingly coordinating office activities there, and faculty and staff generally are adjusting to what is a new situation for everyone."

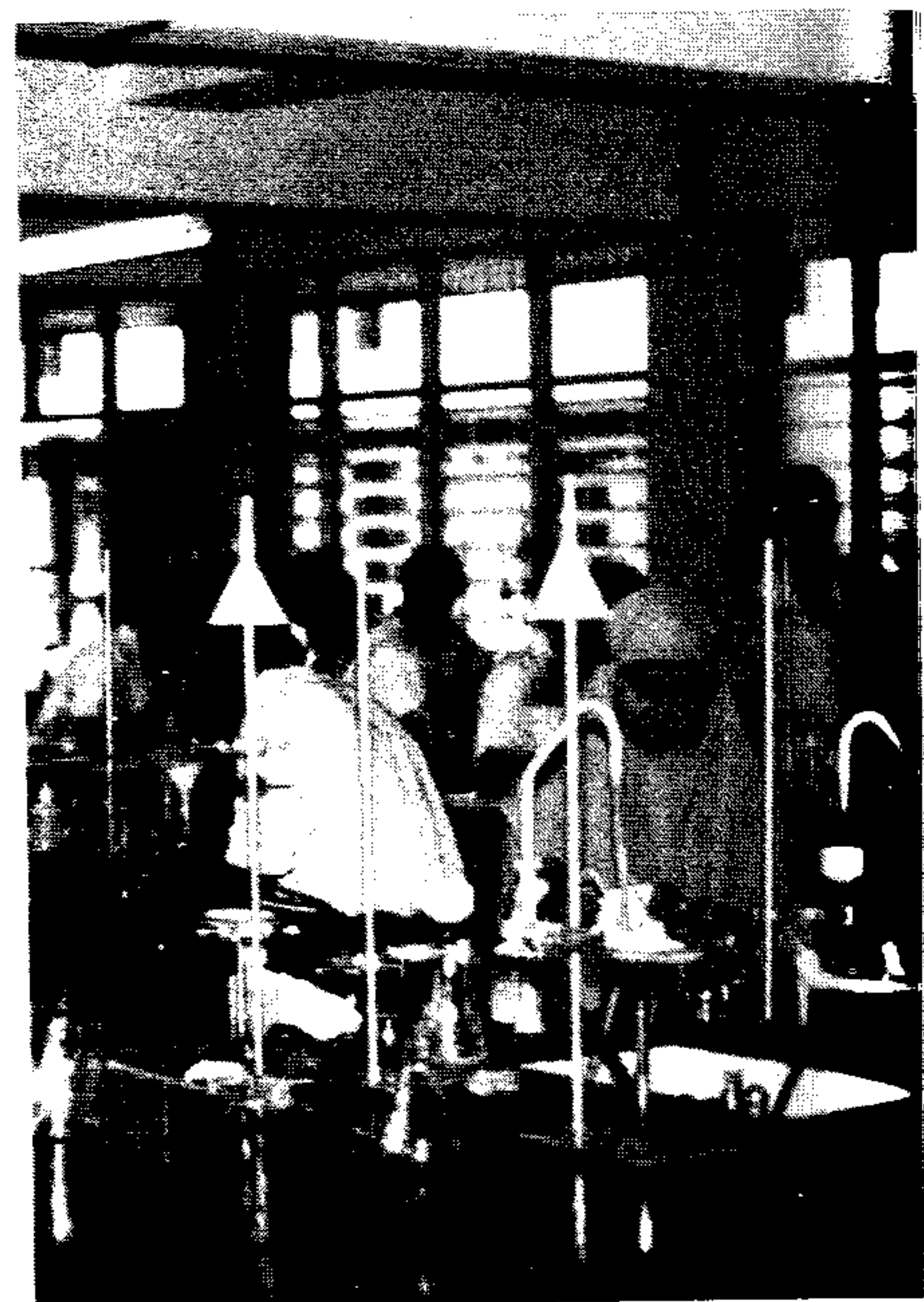
Looking back on this difficult period some months later, a MUCIA review team concluded: "... from the experience of other overseas programs, what has been accomplished at Shah Alam is quite remarkable, especially given the short time. Much credit for this success belongs to our Malaysian counterparts who have made heroic efforts to provide the needed materials."

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Layout of the ITM/MUCIA Center

Facilities at the Center include eight buildings, basketball and tennis courts, an athletic field, and a faculty parking lot. The buildings at the Center are specialized in function. Most classes are held in three 3-story buildings linked by covered walkways. These buildings also contain the Library, an Academic Skills Center, Chemistry and Physics labs, and some faculty offices. Laboratories are equipped with standard laboratory tables—two students to each station. The air conditioned computer science facility is in a separate building between the student canteen and the gymnasium. Its 50 IBM PCs are used in the introductory and advanced programming courses (Pascal) and in engineering applications of the computer (Fortran). Its VAX 11/780, installed in January 1986, is equipped with 40 terminals and is used in courses on assembly language programming and data structures. The computing facility ranks among the best teaching facilities in Malaysia and is one example of ITM's support for quality education in the ITM/MUCIA Program.

The student cafeteria/canteen is adjacent to the main classroom buildings. Students are provided a stipend for food and may purchase meals there. The auditorium, next to



the gym, is a multi-purpose building. It has a stage for theatrical productions and convocations and its floor can be set up for volleyball or badminton; both the gym and auditorium are equipped with dressing rooms and showers. In addition, the ITM/MUCIA Center contains basketball and tennis courts and a large playing field for soccer and softball. In January 1986, trees were planted on campus to soften its appearance and provide welcome shade.

Two small buildings serve as the administrative offices of the KPP head and staff, one larger building as the main administrative office of the ITM/MUCIA Center. The latter is subdivided into offices for the Provost and faculty, the Office of Student Services, two faculty lounges, a meeting room and a small computer room equipped with two IBM PCs for faculty. Additional faculty offices are located in the building facing the tennis courts.

Some students live directly across the street from the Center in government subsidized flats, while others live in hostels a few miles distant. These are typically three bedroom units with a KPP appointed Malaysian counselor in each building. With the growth of the ITM/MUCIA Program and the release of students to eat off campus, entrepreneurs have moved into the area. Mobile vendors

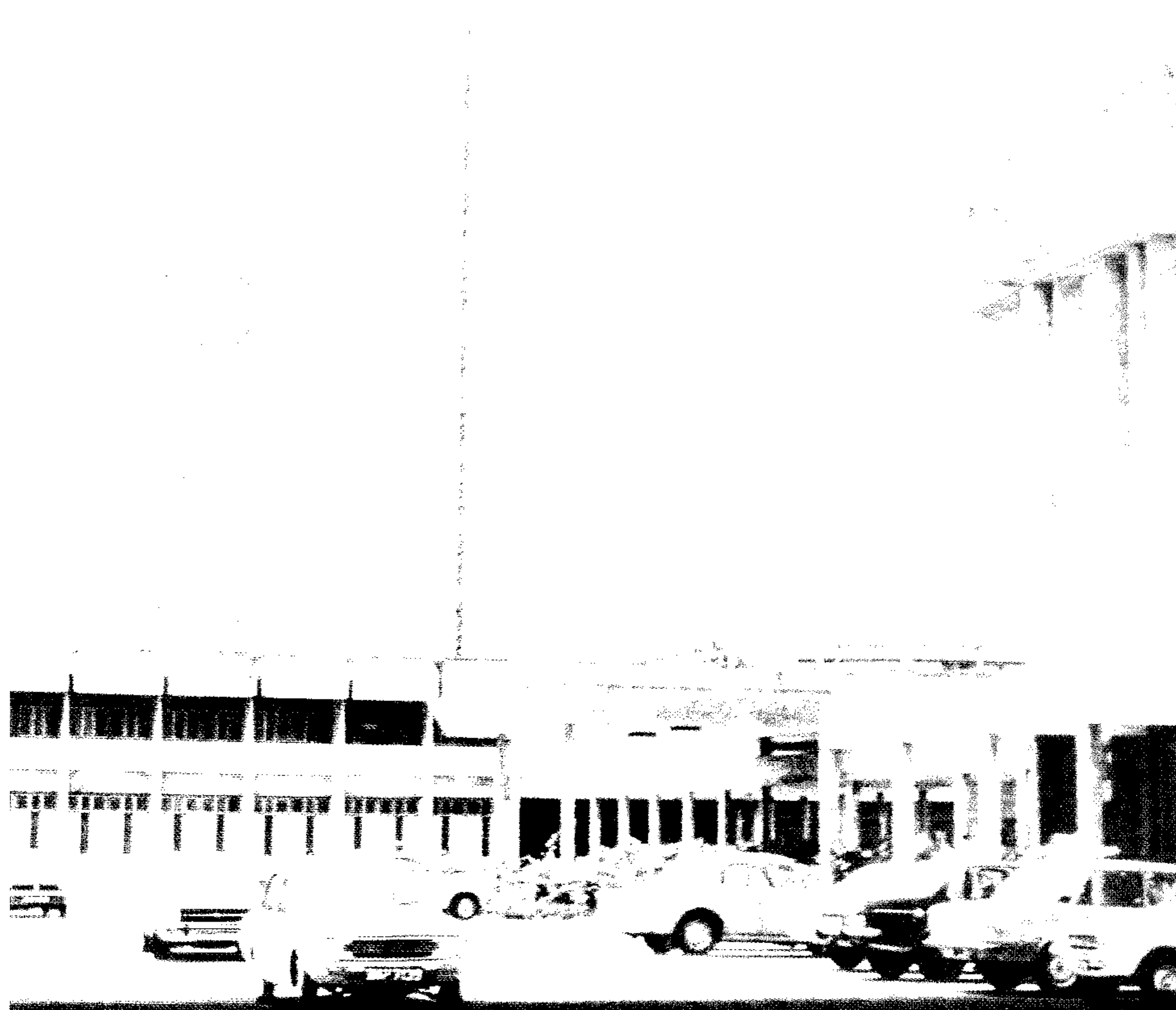
now line up outside the Center each day and at least two restaurants have been established nearby.

Institut Teknologi MARA (ITM)

ITM was created in 1959 initially as the training center of the Rural and Industrial Development Authority (RIDA). The center began by offering courses in Stenography and Bookkeeping, but within five years broadened its scope to accountancy and business studies, as well. Its purpose was in improving the skills and economic opportunities of the rural population. In 1965, the government renamed RIDA as the Majlis Amanah Rakyat (MARA), i.e. Council of Trust for the Indigenous People. In October 1967, "MARA College" was transformed into the Institut Teknologi MARA and expanded its offerings to new fields.

By 1986, ITM had grown into a diploma granting institution of more than 20,000 Bumiputra students on a sprawling 370 acre site in Shah Alam and nine branch campuses. It offers diploma courses in Engineering, Accountancy, Administration and Law, Business, Applied Sciences, Mathematical Science and Computing, and Secretarial Science to mention only a few. The ITM Library contains 180,000 volumes of which approximately 120,000 volumes are in English. The Library's collection is open to ITM/MUCIA students and faculty.

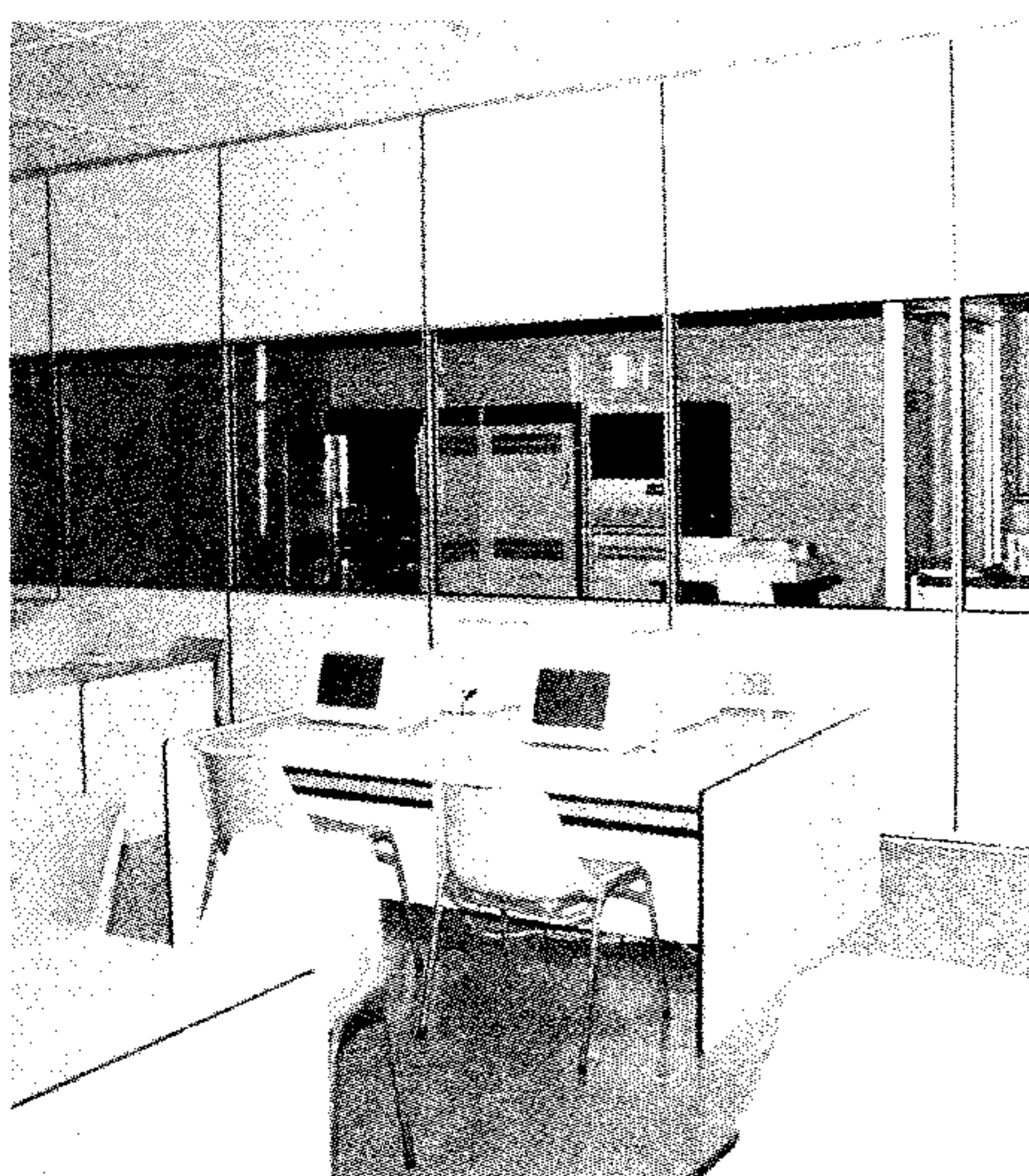
At ITM, the Director, Dr. Mansor Bin Haji Salleh and his predecessor Datuk Nik Abdul Rashid Abdul Majid, have provided exceptional leadership. Likewise, the faculty of ITM have rendered invaluable assistance on numerous occasions. English Language, Study Skills, Computer Science and Physics faculty at the ITM/MUCIA Center have all had help and cooperation from their counterparts at ITM. In addition, ITM has released and funded three Malaysian Chemistry instructors with U.S. degrees to assist with Chemistry labs, and a variety of other support personnel in Computer Science, Guidance and Counseling, Physics, and Library Science. These efforts have been extended in the cooperative spirit of the ITM/MUCIA Program.



"By 1986, ITM had grown into a diploma granting institution of more than 20,000 Bumiputra students on a sprawling 370 acre site in Shah Alam and nine branch campuses. It offers diploma courses in Engineering, Accountancy, Administration and Law, Business, Applied Sciences, Mathematical Science and Computing, and Secretarial Science to mention only a few."



The Center's Library.



The ITM/MUCIA Center's VAX 11/780 Computing facility.



(Foreground right:) Provost Hopkins in student canteen.

Shah Alam and Environs

Shah Alam, the state capitol of Selangor, is a "planned city" created with \$ 600 million ringgit when the Selangor state capitol was moved a decade ago from Kuala Lumpur to Shah Alam. The city is divided by a federal highway. A majority of the city's 80,000 inhabitants live on the north side of the highway in dwellings that range from highrise apartment buildings to single family dwellings. The palace of the Sultan sits on a hill overlooking the entire city.

The heart of the city is formed by a complex of State administrative buildings, a sports complex, and the State Mosque. The latter, recently completed, is a beautifully designed structure with the largest mosque dome in Southeast Asia. A series of gardens and lakes of remarkable beauty wind through the area. Two new shopping complexes and many smaller retail outlets have opened as the city has grown. To stimulate residential development, the government offered low interest loans for individuals who would build in specified areas of Shah Alam. In consequence, housing is excellent in quality and there are many units available for lease. The ITM/MUCIA Center is located in an industrial area of Shah Alam on the southside of the federal highway. Although there is some government housing in this area, the predominant character is one of light to medium industry.

About fourteen kilometers east, Petaling Jaya ("PJ") offers an older and more developed residential setting. There is much retail commercial development in PJ, and it is also the home of the University of Malaya. Faculty with school age children live there, in part, because it is closer to the international schools which expatriate children attend. To compensate, ITM provides faculty transportation in mini-vans from PJ to the ITM/MUCIA Center.

From PJ, the center of Kuala Lumpur ("KL") lies another 10 kilometers east on the federal highway. The Federal District of Kuala Lumpur has a population in excess of one million people. Indeed, the environs of KL, PJ, and Shah Alam reveal Malaysia's rapid emergence as one of the newly industrialized countries of the world. Lining the federal highway between Shah Alam and KL are signs of the country's development: semi-conductor factories, automobile plants, breweries, manufacturers of consumer electronic goods, and textile producers large and small.

For Malaysia, sustaining industrial growth is vitally important in the face of falling prices for its oil, tin, rubber and palm oil on world markets. The government's commitment to developing its human resources to promote balanced development and industrialization is manifest in the extraordinary support offered the ITM/MUCIA Program.

The First Academic Year

This section provides an introduction to the process and chronology of academic and administrative developments during the Program's first school year. These developments are described in more detail in later sections.

February through June, 1985

The contract between ITM and MUCIA was signed in January, 1985. Initial priorities centered on the design of the "Bridge Program," the development of syllabi, and the recruitment of faculty. The Bridge Program, scheduled to begin in June, called for one eight-week intensive session—three classes a day—of English remediation and a daily Learning Skills course. The English language (ESL) curriculum assumed that the majority of incoming ITM/MUCIA students would be ready for advanced ESL instruction and that a minority would need some additional work during the following academic term.

A second set of priorities involved administrative matters. Because ITM/MUCIA students are admitted as Indiana University students, their admissions data, grades and record of earned credits had to be entered in the Indiana University Registrar's system at the IU-Indianapolis campus, 8,000 miles away. Given the distances, it was impossible to provide Malaysia with computer access to the IU Registrar's system, so the School of Continuing Studies began the development of a microcomputer system to coordinate the needs of Shah Alam students and advisors and those of the Indiana University-Purdue University Indianapolis registrar. To facilitate matters, the Registrar granted special dispensation to report data a week or two beyond established deadlines. These measures among others assured that students would receive official Indiana University grade reports and transcripts. Concurrent with these efforts was the development of an admissions application form for the program.

Throughout the first four months of



the program, the Director of Administration, Mrs. Grace Bareikis, worked on tax, financial and administrative matters. To ensure that funds encumbered under the contract were properly accounted for, she met often with the IU Office of Contract Administration. While the Program's Financial Officer oversees the routine expenditure of funds for travel, salaries, and educational needs, the Contract Administration office regularly audits the contract. In addition, procedures were established through which the Financial Officer makes periodic reports to the Treasurer of MUCIA.

As noted previously, Ms. Biddinger, Mrs. Habibah, and Mr. Sahol were busy in Shah Alam establishing the center and its administrative structure. At the end of April, they sent information to IU on the probable number of students who would enroll in the June Bridge Program. This made it possible to project faculty needs for both the Bridge Program and the August initiation of the IU Degree Program. Bridge faculty arrived in Shah Alam in the second week of June. By early June, 23 additional faculty for the IU Degree Program had been appointed in the areas of mathematics, speech communications, psychology, computer science, business, sociology, physics and English composition.

The First Semester: July through December 1985

Classes in the Bridge Program began on June 24, 1985. It was apparent to ESL faculty by mid-July that the majority of students arrived with intermediate rather than advanced level ESL skills and that most students would need intensive English remediation during the following semester. Planning began immediately for an expanded ESL curriculum to meet these needs. Faculty for the fall semester arrived in Shah Alam during the second week of August; classes began on September 2.

A number of additional needs emerged as the fall semester progressed. First, with the imminent arrival of over 500 new students in Intake II, and the expansion of the ESL program, it was evident that the ESL faculty would have to be enlarged. The immediate need was for some short-term help with the Bridge Program for Intake II, slated to begin in October and run concurrently with ongoing ESL remediation of Intake I students. Eight faculty were recruited for eight-week assignments in Shah Alam. In late September, 20 additional long-term ESL faculty were requested to meet the ongoing English remediation needs of the spring semester.

Second, the growth in size and complexity of the program required

"The spring semester ended during the first week of May with faculty and student morale high. Nearly 70% of the faculty requested extensions of their one-year contracts. Student performance had improved by the end of the semester and an array of recreational and extra-curricular activities were in place."



Dr. Roy Jumper, the Center's Provost as of July 1986.

the addition of new ITM/MUCIA staff. Early in the semester, Ms. Biddinger selected five academic advisors to assist the Office of Student Services. Paid by ITM, these advisors gave

invaluable assistance to the program. In December, a Director of Administrative Services was added to assist the Provost. A Chemistry faculty member also arrived in early December to direct the establishment of the Chemistry labs.

By the end of the first semester a great deal had been learned about the students' backgrounds and the suitability of the curriculum. Very few changes in text or syllabi proved necessary. One clear need was for another photocopy machine for classroom materials. The one small xerox machine available on campus proved inadequate for the volume of reproduction desired. In Bloomington, 38 more faculty (20 for ESL and 18 for the IU Degree Program) were preparing for departure to Shah Alam.

The Second Semester: January through June, 1986

The first week of January saw the arrival not only of new faculty but also of a MUCIA Review Team composed of Dr. William Flinn, Executive Director of MUCIA, and Dr. John Lombardi, MUCIA Project Director. Their report to the MUCIA Board subsequently praised the contributions of ITM and the MUCIA faculty and staff for progress made during the first six months of the academic program.

The spring semester brought new developments. The installation of a VAX 11/780 mini computer completed the development of the computer science facility, and the acquisition of a high speed copier provided the capacity needed by faculty. The Provost designated "Area Coordinators" for major subject areas, and the Chemistry faculty worked overtime to keep the Chemistry labs up and running. New extra-curricular activities for students were initiated.

With these developments, all major components of the program were in place and attention turned to refining existing programs and procedures. Program staff worked on improving the links between Bloomington and Shah Alam regarding registration and student record keeping. These measures improved the accuracy with which future faculty needs could be predicted. Minor adjustments were also made in academic regulations on

withdrawal procedures, probationary status, etc. In Bloomington, the Coordinator for Placement contacted over 400 U.S. institutions for placement of future ITM/MUCIA graduates, and members of the School of Continuing Studies Selection Committee began interviewing candidates for 1986-87 faculty assignments.

The spring semester ended during the first week of May with faculty and student morale high. Nearly 70% of the faculty requested extensions of their one-year contracts. Student performance had improved by the end of the semester and an array of recreational and extra-curricular activities were in place.

Summer 1986

The summer session for the IU Degree Program began at the end of May and marked the first time in which a full complement of academic courses was offered during the summer term. Four Engineering faculty from Purdue went to Shah Alam to initiate the Engineering curriculum. Several Chemistry and Physics faculty worked full time during the summer to set up new labs for courses to be offered in the fall. In late June and early July, Provost Hopkins and Ms. Biddinger completed their terms of service in Shah Alam and were followed by Dr. Roy Jumper and Mrs. Ruth Miller, respectively. The Bridge Program began again in mid-June with an expanded ESL curriculum. It enrolled 163 students in Intake III. The much smaller enrollment in Intake III was attributable to the expansion of other overseas preparatory programs in Malaysia. By the end of the summer session, the majority of students in Intake I had completed one full academic year of coursework, and the majority of students in Intake II had completed all required work in English remediation. The beginning of the Fall semester would see most Intake II students assuming a full academic load.

The summer session concluded at the end of July as 49 new faculty arrived to begin the fall semester. With the new arrivals, the faculty complement rose to 110.

The Selection and Preparation of Students

An essential ingredient in the academic success of the program is, of course, the selection of students who have the background and ability to complete university work. The success of these students in the ITM/MUCIA Program, and beyond, is the yardstick by which the program will be judged. Every effort is made to select students carefully and to provide them with the necessary academic skills. Students chosen for the ITM/MUCIA Program must meet Indiana University admission requirements for international students. These admission requirements have been in effect at IU for many years and have proven to be a valid predictor of success in university work at IU and most other institutions. The students who submit applications come from a pool of Malaysian Government scholarship recipients who have won the awards through a national competitive examination and review process.

Government Scholars

At the end of the second year of Upper Secondary School (Form V), students take a Secondary School Leaving Examination, and if successful, receive the Malaysian Certificate of Education, known as the Sijil Pelajaran Malaysia (SPM). This is an external exam administered by the Malaysian Examination Syndicate under the Ministry of Education. Over 230,000 Malaysian students take it each year. From this group, the Government selects the top six percent of Bumiputra students for scholarship awards. The selection process includes evaluation of SPM scores, consideration of secondary performance, and interviews by the granting agencies with prospective recipients.

In evaluating SPM scores, the scholarship agencies of the Government give an overall classification depending on the level of accomplishment of the student. Certificates may be classified as Division I, II, or III, with Division I the designation used for the highest,



most competitive of Form V graduates. The SPM is composed of exams in individual subject areas. Students in the ITM/MUCIA Cooperative Program are Division I holders and scholarship recipients who meet the additional requirements of admission to Indiana University.

Selecting Students

Indiana University admission standards do not permit the automatic admission of a Division I student; rather IU tallies its own aggregate score of "solid" subjects—including only language and literature, social science, science and mathematics subjects (see accompanying box on "Admission Requirements"). This procedure eliminates students who have done well only in "peripheral" subjects, such as commerce, art, mechanical drawing, and agricultural science. The screening for excellence in solid subjects closely parallels the screening of U.S. students, whose admission to the university is tied to their performance in academic rather than vocational areas.

Student Enrollments

Intake I	(June 1985)	434
Intake II	(October 1985)	520
Intake III	(June 1986)	163
Intake IV	(October 1986)	329
Total			1,446



"I find these students to be the most ambitious group of ESL learners I have ever taught. They are hungry for the right way to do things academically, and are subtly critical of activities that they consider a waste of time. Quiet mumblings do occur if students feel that material is being repeated or appears irrelevant. This ambition prevents major discipline problems."

—Lecturer
ESL
ITM/MUCIA
Cooperative Program

Because a Test of English as a Foreign Language (TOEFL) score that accurately reflects students' English language ability is not available when admissions decisions are made, all students are accepted into the ITM/MUCIA Program with special student status. These students, as all students in the program, must take courses in English language improvement until they demonstrate mastery. This procedure closely emulates that followed for international students in Indiana, who must demonstrate competence in English through Linguistic Department exams and courses before being permitted the opportunity to take regular academic courses. Students are only admitted to the IU degree program when students have finished their English language program and proven their academic ability by completing a semester's worth of regular academic courses with a C average or better.

There are two entering classes of ITM/MUCIA students each

English Language Remediation

During Lower and Upper Secondary School, English is a required second language in Malaysia but students spend an average of only two hours per week on English. Experience with incoming students to U.S. degree programs has shown that most Malaysian students need 6-12 months of intensive English language training before assuming a full academic courseload.

For ITM/MUCIA applicants who should achieve a TOEFL score of 50 or better, the average score before intensive immersion training in English was 459 for Intake I and 481 for Intake II. For ITM/MUCIA students, additional training is offered in three phases. The first phase of students' post-secondary English language remediation is conducted by ITM through its College of Preparatory Studies—the English Immersion Program—under the guidance of M. Habibah Ashari and her energetic

Admission to the Bridge

Students are accepted into the Bridge Program for English Language Improvement if they meet the following requirements:

1. Have an SPM* score of 1 through 6 in six academic subjects from among the following areas: Physics, Chemistry, Biology, Geography, Human and Social Biology, English Literature, Malay Language, Malay Literature, Chinese Language or Literature, Tamil Language or Literature, Arabic Language, History, English Language, Mathematics, and "Additional" Mathematics.
2. Have a total SPM score for all 6 subjects of 24 or less.
3. Have an SPM Math score of 1 through 6.
4. Have an SPM English score of 1 through 6.

*Note: These exams are graded on a scale of 1 through 9 with 1 representing the highest achievement score and 9 being a failure. Scores of 1 through 6 in each subject area constitute a "pass" with credit.

year—referred to as "intakes" by the Program staff. The first intake is admitted in April with ESL classes beginning in June. The second intake is admitted in August with ESL classes beginning in October or November. At the time of submission of application dossiers, students have available their SPM scores and a TOEFL score obtained at the end of their secondary program and before their entry into the English Immersion Program offered by ITM.

staff. It is a four month long program of 32 hours a week of language instruction that focuses on the development of general language skills including reading, writing and listening comprehension. Students are assigned heavy loads of homework and are required to speak English in dorms and on the campus. The program has a solid record of success in improving the students' English language competency. At the completion, students are prepared

enter the intermediate ESL programs.

During the second phase, students enter the "Bridge Program" conducted by ITM/MUCIA faculty. The Bridge is composed primarily of ESL instruction with additional sections on Study Skills and Math remediation. Its content is designed, in part, to introduce students to the American university academic environment. The first portion of the Bridge is offered for each new intake (i.e. twice a year) for eight weeks of intensive study. During this portion of the Bridge each student takes three ESL classes and one Study Skills class. During the summer Bridge session, it is also possible to add a Math refresher course in algebra and trigonometry. The first eight week Bridge session is followed by two more eight-week sessions in the following semester. All courses in the Bridge curriculum are noncredit.

Upon entry into the ESL portion of the Bridge, students are placed into Levels I, II, or III based on their performance on diagnostic English language tests. The ESL courses consist of reading, writing, and English for academic purposes. The latter segment employs material drawn from the curriculum to emphasize exposure to the kind of language used in university level instruction. Students enter at Level I and progress through Level III as they move through the three eight-week Bridge sessions. During the second and third sessions, students are also required to enroll in a course in the IU Degree Program, usually Mathematics, that runs concurrently with the regular academic semester. After finishing the Bridge, students must also complete a course in advanced reading and composition, which is designed to prepare the student for freshman English Composition and other academic courses. No student can proceed to a full academic load without first having satisfactorily completed the requirements of the ESL Program.

The Learning Skills Program

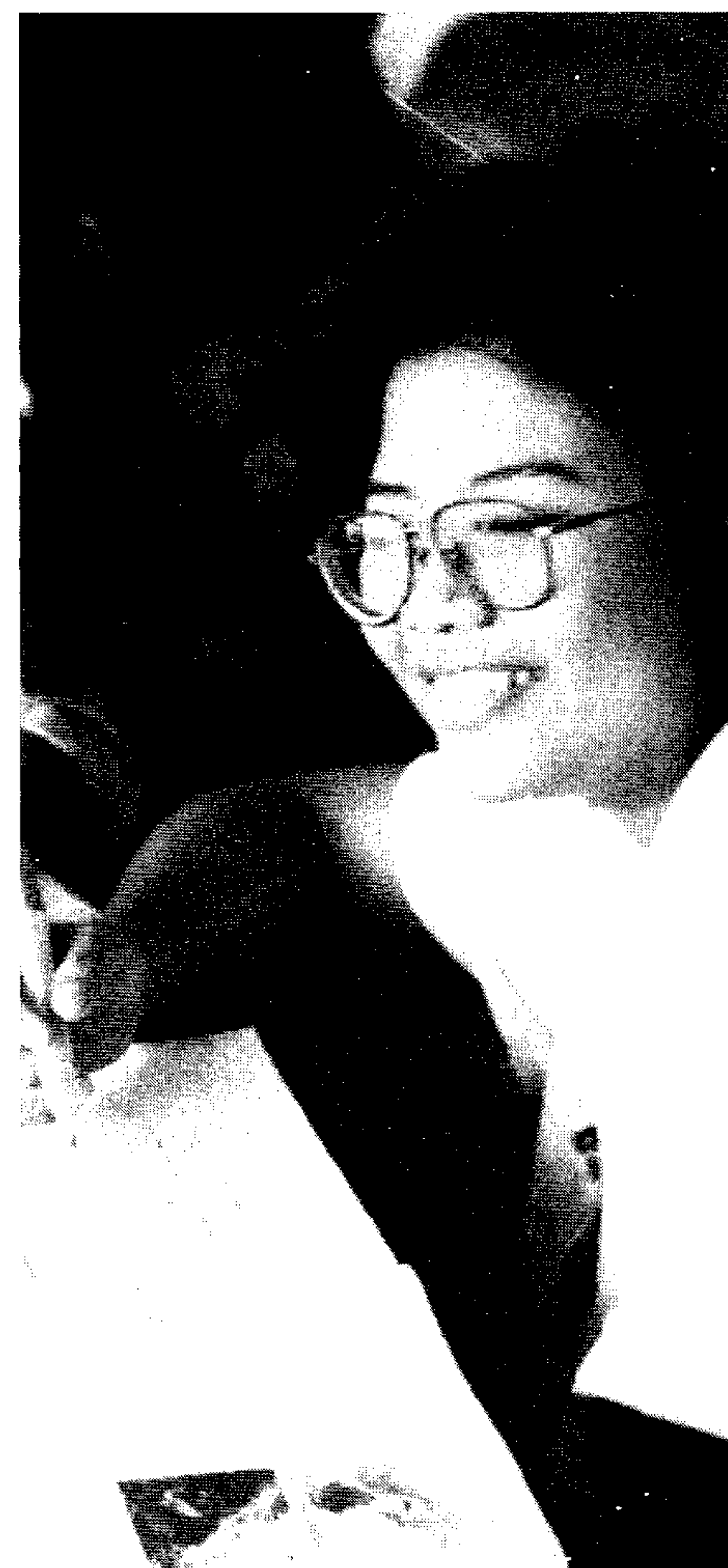
The Learning Skills Program has two major components: the Bridge course, "Preparation for Study at American Universities," and the

Academic Skills Center. In addition the Learning Skills faculty is developing other services for students and faculty. All components of the program recognize that students' major needs in this area are the development of intercultural knowledge and skills with emphasis on the use of English language as a medium of learning. The Program is particularly concerned with students' ability to read complex academic material, to relate information from different sources, to read and think critically, and to express what they understand in both speaking and writing. The Learning Skills faculty also teach study-management skills to help students use time effectively, cope with stress, and organize their work.

In the Learning Skills course students gain knowledge about the American university system, various academic disciplines, and strategies for coping with the work and expectations of American university faculty. These are important because there are significant pedagogical differences between the American system and the one to which students are accustomed. In addition, the Academic Skills Center contains a collection of free reading materials for students and is equipped with VCRs and audio tape machines for instructional use; two learning skills instructors provide individual and small group help. They help students grapple with the problems of preparing for essay exams, applying concepts to new situations, and critical reading. People from other departments have also volunteered or been assigned to provide tutoring time.

The Office of Student Services

The Office of Student Services has two primary responsibilities: (a) to provide advisory services to students, and (b) to maintain student records in Shah Alam and serve as liaison with the School of Continuing Studies on all academic records and scheduling procedures. The office is headed by a Director of Student Services who supervises 10 half-time academic advisors (each with about 120



"I would suggest exactly the same things for my Malaysian students that I would suggest in the U.S. The students need to improve their note-taking skills, their ability to think critically, their ability to read a text and filter out the important information, and their understanding of the material."

—Assistant Professor
Psychology
ITM/MUCIA
Cooperative Program



"After finishing the Bridge, students must also complete a course in advanced reading and composition, which is designed to prepare the student for freshman English Composition and other academic courses. No student can proceed to a full academic load without first having satisfactorily completed the requirements of the ESL Program."

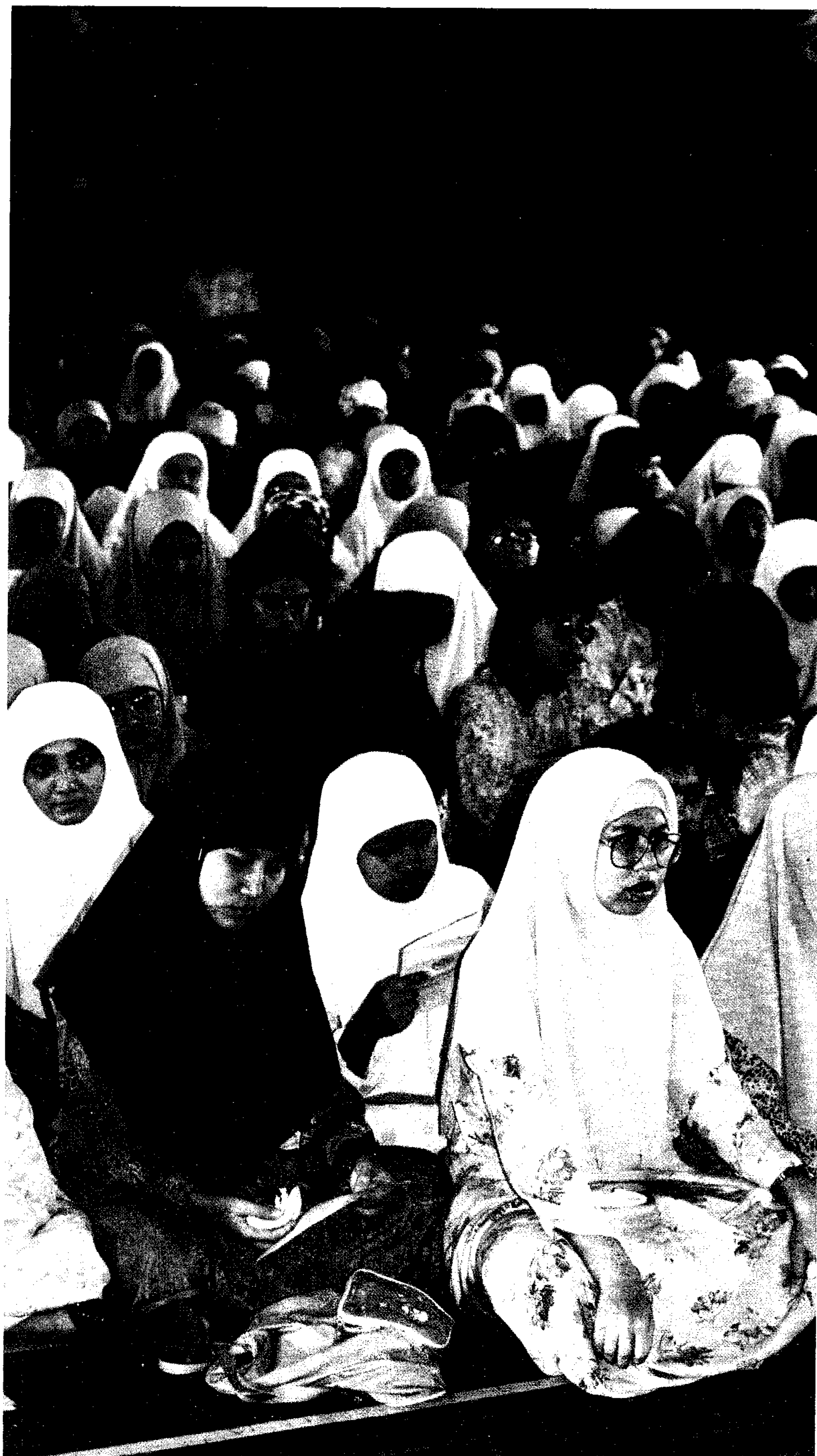
advisees), three full-time records clerks, and three secretaries. In addition, a half-time Director of Records and Scheduling was added at the beginning of the second year of the program.

Upon entry to the program, each student is assigned an academic advisor who arranges conferences with each advisee every semester. This advisor instructs the students about the arcane world of "credit hours," "sections," "transfer credits," "grade point averages," and other concepts unfamiliar to entering Malaysian students. Advisors also guide the student's decisions about course selection and academic requirements. The Director of the Student Services Office and the Center's Director for Records and Scheduling also maintain enrollment information essential for

student and faculty scheduling. While the data are processed by the School of Continuing Studies at IU, assembling of the data and coordination of scheduling tasks are done in Shah Alam.

Beginning with the selection of scholarship recipients by the Government of Malaysia and the entry of students into ITM's English Immersion Program, every effort is made to select and prepare students for success in a U.S. university environment. Although not every student will successfully complete the ITM/MUCIA curriculum, each will have been given the best assistance available consistent with sound academic policy. Those students who do complete the Program will transfer to U.S. schools with solid academic preparation for their upper division programs.

The Students



Any description of the students should include something about their age, ethnic status, social class, and home origin. As previously noted, the students are Bumiputra who have received government scholarships and met Indiana University's admission requirements. They have completed their secondary education through the eleventh year and enter the ITM/MUCIA program between the ages of 17 and 19. Students come from all states of Malaysia, from urban and rural areas, and from all kinds of secondary schools.

In the first three "intakes," there were more men (60%) than women (40%). Women are more likely to be found in computer science and business majors; men are more likely to major in engineering. The metropolitan areas of Kuala Lumpur and Penang are represented by about 10% of the students; another one-third of the students are from large cities and 20% from medium sized cities. The remaining one-third of the students are from small towns and kampungs.

Dr. Keith Moore, a Sociology faculty member at Shah Alam in 1985-86, conducted a survey of students in Intakes I and II, that revealed additional information. About one-third of the fathers of these students are farmers or fishermen, followed by teachers (20%), administrators and businessmen (15%), and clerks and service employees (14%). Very few students have fathers that are professionals, skilled craftsmen, or factory or construction workers.

The type of secondary school a student attended is an important indicator of background. Residential secondary schools are costly and generally reserved for better students. They also provide an institutional environment more similar to a college than local, non-resident schools do. In the first two intakes of students, 53% attended a residential secondary school. About one out of five attended a secondary school that was segregated by sex.

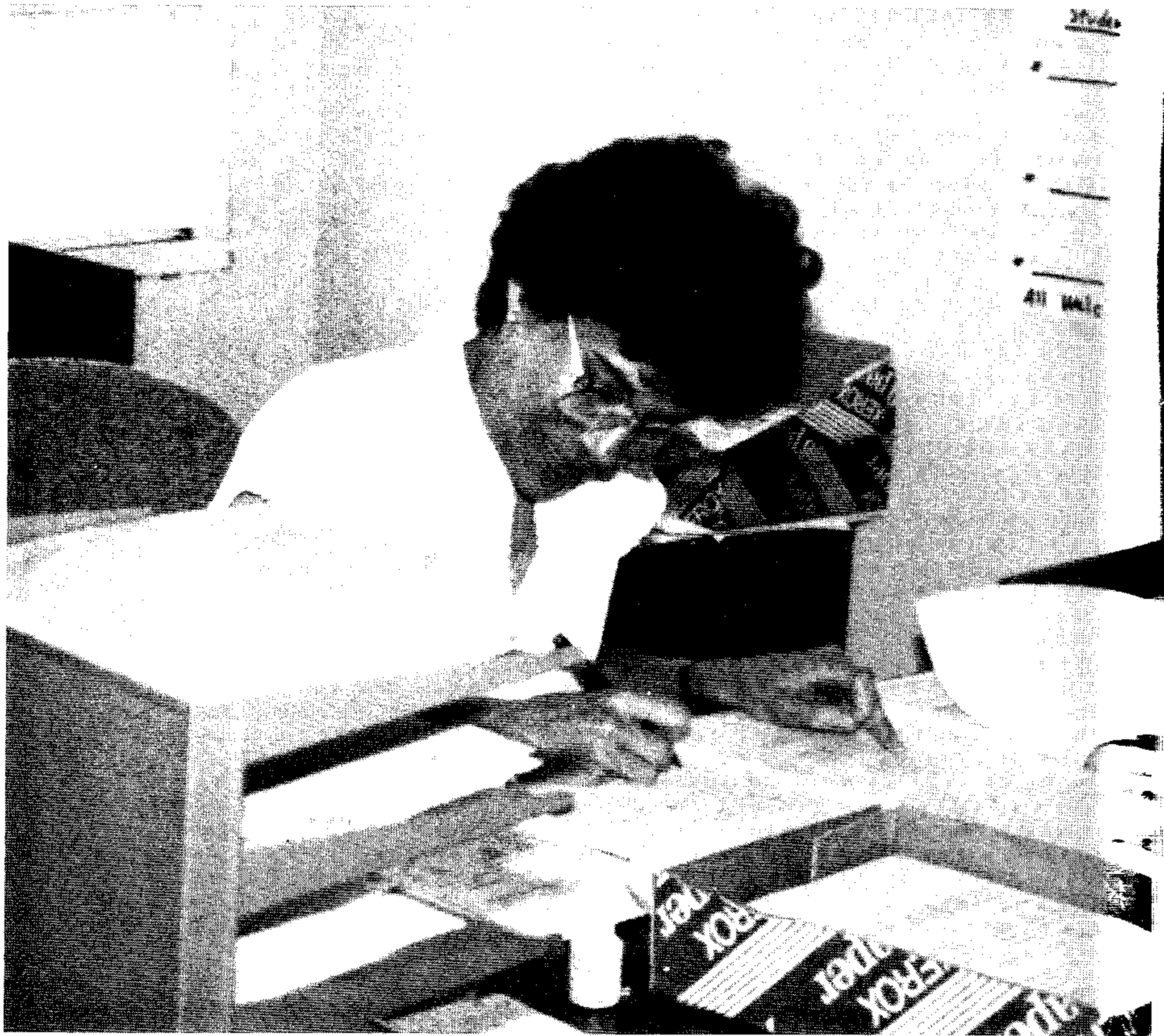
While demographic data provide a statistical profile of the student body, they answer only part of the question as to who the students are. Another part of this picture is composed of students' values, beliefs, and behaviors. A Learning Skills faculty member offered the following assessment: "Students are likeable, perhaps too compliant, unsure of how to hold up their side of responsibility for their own education, bright, resourceful, generally neat in their work, conscientious, sometimes bewildered, caught in the middle between . . . cultures." They are eager as well as anxious about their entrance into the ITM/MUCIA Center.

The great majority of students say that religion is at the center of their lives. The majority also describe their own social attitudes as moderate rather than conservative or liberal. This does not mean, however, that they are apathetic about their country's political life. In essays and speeches, they show a keen interest in Malaysia's current events and in the role that Bumiputra play in Malaysia's development.

Student Academic Performance

At the outset of the ITM/MUCIA Program, the staff wondered how long it would take students to "get up to speed" in English language ability and how they would perform in the academic program. Perhaps it would take longer in Malaysia than in the U.S. to improve their language skills. To overcome this possibility, the faculty have made use of films, speech contests, a campus newspaper, extra-curricular activities, and English-only rules on campus in addition to the extensive Bridge Program previously described.

With the first academic year completed, an answer to these questions emerged. Of 1,117 students admitted to the program through June 1986, in the first three intakes, about half (570) had completed all necessary English language improvement courses by the end of summer session 1986. The inclusion of writing in ITM's English Immersion Program and the development of a non-credit English



Mrs. Susan Luchs, Academic Advisor.

Composition course in the ITM/MUCIA Bridge Program ensures that students will get more intensive writing work than their counterparts in the U.S. Only when students have met these requirements may they enroll in the credit bearing course in English Composition. Students who cannot satisfactorily complete the Bridge Program are dropped from the ITM/MUCIA Program.

Academic Performance

Student academic performance in credit bearing courses at Shah Alam closely parallels the performance of other Indiana University students. The mean cumulative grade point average at the end of Summer Session 1986 for the 570 ITM/MUCIA students who had completed at least one semester of academic courses was 2.41. At the end of Fall 1986, eighteen percent of all students in Shah Alam had cumulative grade averages of B (3.0) or better; 87% had cumulative averages of C (2.0) or better. Three percent are in the honor range of 3.5 or better. In general, faculty say that the Shah Alam students earn fewer A's

than American students in comparable courses but also fewer D's and F's. Twenty-nine ITM/MUCIA students have been dismissed from the program because of poor academic performance, and 114 more students (13% of those that have completed 12 credit hours of academic work) face dismissal if their academic performance does not improve significantly.

The courses that students seem to find most difficult are social science subjects and those that involve heavy reading or writing. Sociology, psychology, and freshman composition register some of the program's lowest grade averages. On the other hand, students have done quite well in difficult technical courses—programming for engineering majors, second semester Pascal programming, and first- and second-semester calculus all show relatively high average grades.

While entering students in Shah Alam are generally stronger than their American counterparts in math, a minority of students—predominantly in the Business and Computer Science tracks—have needed some

remediation in mathematics before going on to required math courses. Of 443 students in Intake I, 96 needed either a non-credit algebra course or a credit bearing course in pre-Calculus College Algebra or Trigonometry. Of 520 students in Intake II, 230 needed such additional work.

The pattern of adjustment to academic requirements for incoming freshmen in Shah Alam is familiar to American faculty. Many of the ITM/MUCIA freshmen—like their American counterparts—do not realize the amount of study time they should invest until they receive poor midterm reports. Final grades at the end of the first academic semester generally improve as the amount of study time increases. As students progress, they have a better idea of what is expected, they learn how to read material more efficiently and they prepare better for essay exams. If students are diligent, sophomore grades generally improve over freshmen grades. Of course, the major difference between American and Malaysian students is that the latter must do this in a non-native language and must study harder to compensate.

Faculty Observations on Student Performance

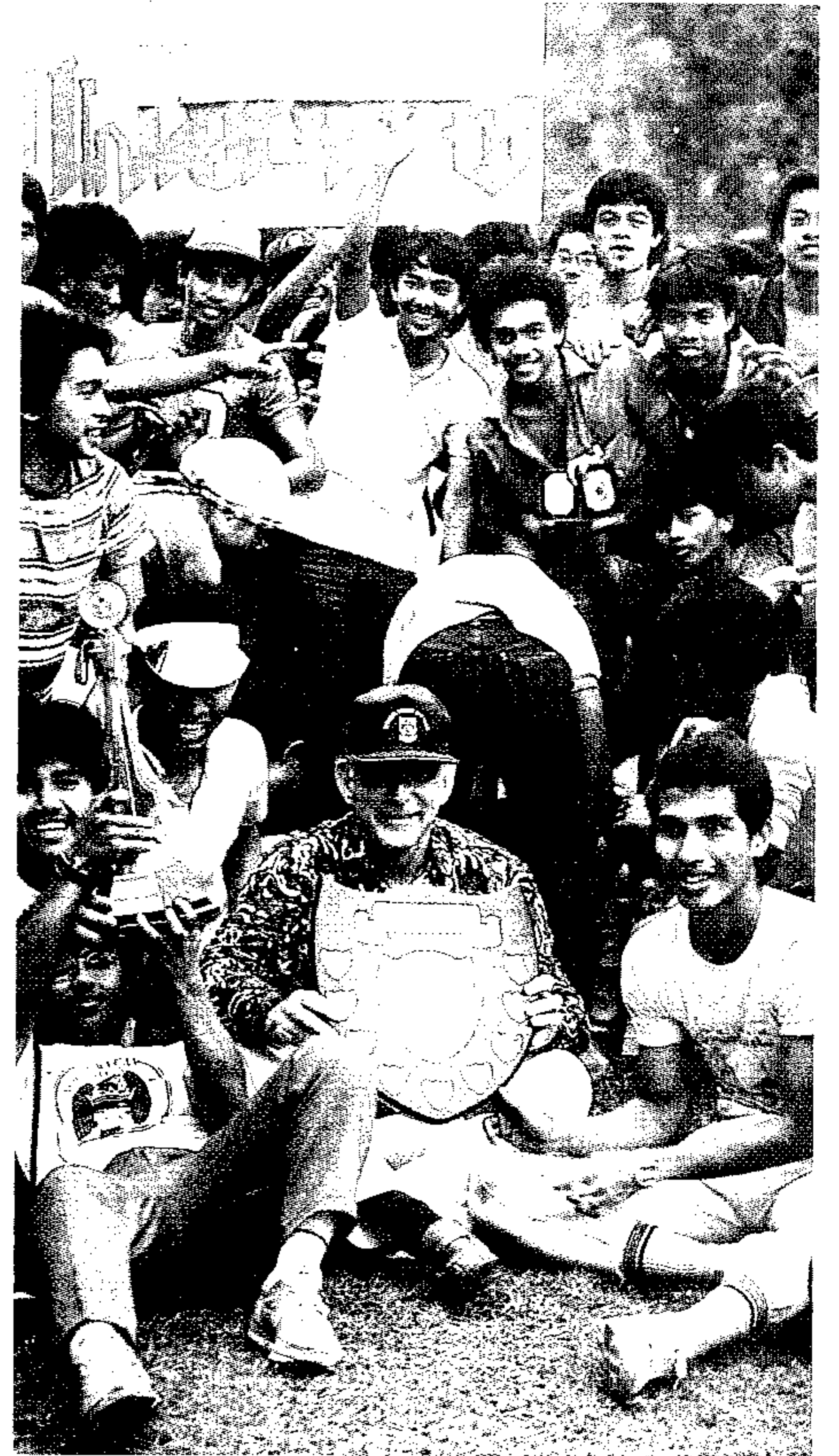
Faculty members note that students come to the program with excellent memory skills, but with improvement needed in skills for critical and analytical thinking. There is also initial hesitancy among students about class participation. "Class discussion is more difficult to generate with Malay students than with American students," said one faculty member. "In particular, I find that when I pose a discussion question which had many 'correct' answers, as soon as one student expresses an opinion which seems to please me, then all the other students adopt the same 'acceptable' answer. Discussion is then quite limited." The students themselves acknowledge that the fear of being wrong is a major reason they are reluctant to speak up in class.

Instructors have seen this difference as their major pedagogical challenge, and many have revised their teaching techniques to meet it. A common approach is to break students up into

small groups. As one faculty member explained it, "a teacher standing before a class posing questions to the whole group is likely to get little or no response, regardless of the difficulty of the question. However, structured discussion works well. Small groups are given a specific task, and are then asked to report the results to the larger group. Variations include any discussion in which particular students are given specific responsibilities." Recent reports from the ITM/MUCIA faculty suggest that students are making steady progress in adapting to American classroom pedagogy.

Student Activities

Islam is at the center of students' lives. On weekends, students take religious classes in their dormitories conducted by instructors from ITM. During the week, the schedule of classes, exams and extracurricular activities at the ITM/MUCIA Center are arranged to facilitate student observance of prayer times. Prayer rooms are set aside on the campus for these observances, all food served on campus conforms to dietary laws, and



Victorious ITM/MUCIA students with Provost Jumper at an athletic competition.



ITM/MUCIA students in a spirited game of Sepak Takraw.



major Islamic Holidays are observed. ITM/MUCIA faculty also remain conscious of their responsibility to respect the religious values and beliefs of their students in the conduct of classes and the planning of extracurricular activities. In this, they are guided by the Head of KPP and a Malaysian Dean of Students. In addition, Dormitory Supervisors are appointed by KPP, with the responsibility of overseeing student conduct off campus. Collectively, these measures emphasize the development of the whole individual and provide continuing opportunity for students' spiritual growth. Through these efforts, students integrate their religious and cultural experience into academic work and their preparations for overseas study.

The students in Shah Alam have taken readily to their identity as Indiana University freshmen and sophomores. Students in Intake I designed a short-sleeved shirt with the Indiana University and ITM/MUCIA logos. A campus newspaper, the "Indianensis Herald," was also started

with faculty assistance. One of the first letters to the editor inquired as to what a "Hoosier" is and why IU's colors are red and white. The first semester also saw the formation of an Indiana University Student Association at Shah Alam.

As the student body has grown and more faculty have arrived, the range of activities for students has expanded. Five recreation courses are now available including basketball, tennis, volleyball, badminton, and conditioning. Intramural tournaments have been organized in these sports with a "Provost's Trophy" awarded to winners of the volleyball tournament. During the spring semester of 1986, three female faculty members volunteered to direct aerobic classes for female students; between 60 and 80 women participated three times a week. There are also occasional faculty-student basketball and softball games.

The "Indianensis Herald" of March 1986 carried a story about the formation of "The Language Club" for students interested in studying other foreign languages: "The response is very encouraging. At present, about 385 students have enrolled to become members (of the Language Club), where 192 chose Mandarin, 94 French, 88 Arabic, and the remaining chose Japanese." Instructors were located for these languages and the KPP provided them with compensation for the non-credit courses they organized. The first year also saw the organization of the Tae-Kwan-Do, Literary, Sepak Takraw, and Bicycle clubs, to name a few.

The first film shown at the ITM/MUCIA Center was "Breaking Away"—a film centered on campus and town life in Bloomington, Indiana. Films are now shown on a regular basis. The finals of a school-wide speech contest were held in November 1985, with 250 people in attendance. Not long after, the students put on a variety show to an enthusiastic reception, and in late February, the ITM/MUCIA faculty reciprocated with their own Variety Show. These activities along with such things as the IU Honors Day ceremonies are part of the efforts to create a well-rounded experience for students.

The Faculty

The metaphor that one staff member uses to describe the early days of the program is that it was like "building a car while driving it down the highway." The first three groups of faculty to arrive in Shah Alam (June and August 1985, January 1986) did so while the "engine" was still under construction. The circumstances during the first year of the program called for patience and flexibility. The MUCIA review team that visited in January 1986, concluded that "faculty performance, by all reports, has been excellent. Faculty have met their classes, provided good instruction, improvised solutions to resource problems, and maintained high standards of academic performance. This is no small achievement and the faculty deserve very high marks for their adaptability and professionalism."

Faculty Recruitment

The process of selecting faculty begins with recruitment on MUCIA campuses. The eight universities of MUCIA have 29 additional regional campuses for a total of 37 four-year schools. These schools provide many excellent faculty upon which to draw for the program, which also recruits from several two-year centers in the University of Wisconsin system. Responsibility for faculty recruitment belongs to the Coordinator for Faculty Recruitment and Training. He is assisted by a MUCIA Liaison Officer at each of the eight main campuses and by Academic Deans and International Programs Officers at the other institutions.

To attract qualified faculty, extensive efforts have been made to publicize the Program within MUCIA. About 16,000 recruitment brochures have been mailed directly to faculty on MUCIA campuses and several thousand additional flyers were aimed specifically at faculty in particular disciplines. The Coordinator for Faculty Recruitment and other Program representatives have visited faculty at 30 of the 37 universities. A fifteen minute videotape program, "Malaysian Discovery: The

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Lillian Dunlap, Lecturer in Speech Communications.



Faculty and spouses at first Pre-Departure Orientation in May 1985.

ITM/MUCIA Cooperative Program," was also developed with the assistance of the Indiana University Audio/Visual Center, and is shown to interested faculty during campus visits.

The response to these recruitment efforts has been gratifying. Since the inauguration of the Program more than 600 individuals have submitted formal applications. This figure includes 275 applications for Fall 1987—more than double the number of applications received for the same period the previous year. As more faculty have gone to Malaysia and returned with reports of good experiences, word of the program has spread in the U.S.

Review and Selection of Faculty

Preference in assignment of faculty is given to Ph.D.'s, but in some fields the program will accept particularly well qualified and experienced faculty with M.A. degrees. The great majority of faculty who are appointed have doctoral degrees and teaching experience that far exceeds the minimum. In evaluating applications, considerable weight is placed on evidence of teaching skill coupled with signs of ability to work cooperatively with colleagues in team-type situations. Priority in recruitment and selection is given to qualified applicants who are on continuing, full-time appointments at MUCIA institutions. Part-time faculty and recent graduates from MUCIA schools and non-MUCIA applicants receive consideration in areas for which there are not enough applicants among regular MUCIA faculty.

Applicants go through an exhaustive review process. The completed application form and reference appraisals are examined by a MUCIA Search and Screen Committee composed of two individuals from Indiana University and two MUCIA Liaison Officers. Applications found acceptable by this committee are then sent to the Indiana University School of Continuing Studies (SCS) Selection Committee composed of faculty from the School. After its review, SCS forwards approved applications to academic departments of Indiana University for evaluation of

professional qualifications. No faculty member may be hired for the ITM/MUCIA Cooperative Program unless the IU academic department that designed the syllabus for a course specifically approves an applicant to teach that course. SCS then identifies finalists for interviews, and makes offers of assignment based on the review process and Program needs.

Profile of the Faculty

Two questions that should be addressed to the ITM/MUCIA Cooperative Program (or any overseas program) are: (1) What is the ratio of Ph.D. to Masters' level degrees held by its faculty? and (2) What percentage of the total ITM/MUCIA faculty hold continuing appointments at recognized four year institutions in the U.S.?

Nearly 70% of all ITM/MUCIA faculty (past and present) in the IU Degree Program have come from Indiana University or other MUCIA institutions; three out of four faculty have Ph.D. degrees with the remainder holding Masters degrees. Three-quarters of the faculty in Shah Alam in the IU Degree Program are on leave from continuing appointments at U.S. institutions, mostly within MUCIA. This insures that Shah Alam students are receiving instruction from experienced, professional educators. One observer noted that "the students in Shah Alam have more Ph.D., full-time instructors at this level than they probably would in the U.S."

Degrees, faculty rank, and institutional affiliation are only indirect signs of faculty quality. Among the ITM/MUCIA faculty, past and present, are many winners of university-wide teaching awards at their home institutions. The faculty also has many members with outstanding research and publication records, several directors of undergraduate programs, and several current and former departmental chairs. Appendix E lists all faculty who have been appointed to the ITM/MUCIA Cooperative Program through January 1, 1987.

Six Malaysian instructors have joined the U.S. faculty in Shah Alam. Two have Ph.D.'s from British universities and four have Masters



Dr. Goodwin Berquist with winner of the annual Speech Contest.

"One observer noted that 'the students in Shah Alam have more Ph.D., full-time instructors at this level than they probably would in the U.S.'"

“Probably the best sign that faculty have found their experience with the program to be personally and professionally rewarding is this: Of 131 faculty who have completed a one-year assignment, 86 (65%) have requested an extension of their assignment. Others have asked for an opportunity to return in the future after discharge of commitments in the U.S.”

degrees from the U.S. All six have university level teaching experience. They were reviewed and selected in the same fashion as U.S. based faculty. Their classroom work and their insights into the particular needs of Malaysian students have contributed importantly to the academic mission of the program. In addition, three Malaysians with Masters degrees from U.S. universities assist with Physics labs under supervision of the Physics faculty.

The Bridge Program

The faculty of the Bridge Program, as previously noted, includes instructors of English-as-a-Second Language (ESL) and Learning Skills. The process of recruitment and

Past and Present Faculty Appointments: IU Degree Program as of January 1, 1987				
Rank	MUCIA ¹	IU ²	Other ³	Total
Professor	21	6	9	36 (32%)
Assoc. Prof.	17	12	6	35 (31%)
Asst. Prof.	14	3	7	24 (19%)
Lecturer	2	9	7	18 (16%)
Totals	54	30	29	113 (100%)
Notes: ¹ MUCIA—includes faculty on continuing appointments with all MUCIA institutions excluding Indiana University and its regional campuses. ² IU—includes both continuing faculty and adjunct faculty and recent graduates of Indiana University and its regional campuses. ³ Other—continuing and adjunct faculty at non-MUCIA institutions as well as some recent graduates including six Malaysian faculty.				

Past and Present Faculty: The Bridge Program English-as-a-Second Language and Learning Skills as of January 1, 1987				
Rank	MUCIA	IU	Other	Totals
Professor	1	1	0	2 (3%)
Associate	2	1	0	3 (5%)
Assistant	3	3	3	9 (15%)
Lecturer	19	16	12	47 (77%)
Totals	25	21	15	61 (100%)

selection of the Bridge faculty is the same as described above for the IU Degree Program. An important added criterion is previous experience with overseas teaching with international students in the U.S. or both. A Master's degree is required with preference for holders of degrees in Applied Linguistics for ESL assignments and in Reading Education for Learning Skills assignments. The profile of Bridge faculty in our Program is comparable to similar programs in the U.S. A majority have Master's degrees and extensive teaching experience. Like their colleagues at major U.S. institutions, the ESL faculty hold lecturer or adjunct appointments. The Learning Skills faculty have all worked in or

directed Learning Skills programs in the U.S.

The Living and Work Environment

Probably the best sign that faculty have found their experience with the program to be personally and professionally rewarding is this: Of 131 faculty who have completed a one-year assignment, 86 (65%) have requested an extension of their assignment. Others have asked for an opportunity to return in the future after discharge of commitments in the U.S. Desirable factors cited by renewing faculty include class sizes, motivated students, nice housing, and an enlightening cultural experience. In addition to their teaching

responsibilities, faculty are expected to maintain a minimum of 5 hours a week of office hours. Every faculty member also serves on at least one policy or administrative committee. While most of the committees do not meet regularly, they do play a significant role in the success of the Program. Faculty are expected to meet with their Area Coordinators as needs dictate. Many faculty have also been generous in volunteering their time in advising students in extra-curricular programs and activities.

Faculty Orientation

The Program provides a variety of assistance to newly appointed faculty before their departures for Malaysia. This help begins with the work of the Travel Specialist (and Malaysian counterparts) who obtain airline and hotel reservations, visa applications, health forms, a six-page list of things to do and to take before departure, a Bahasa Malaysia language primer, and *Selamat Datang*—an orientation to living in Kuala Lumpur developed by the American Association of Malaysia.

The Coordinator for Faculty Recruitment and Training also sends a 250 page briefing book, "Malaysian Discovery: Background Information for Faculty and Families," developed specifically for the Program. It covers cultural adjustment, Malaysian history, social structure, an introduction to Islam, education in Malaysia, and appropriate forms of conduct in Malay social settings.

A month before leaving, faculty attend a three day "Pre-Departure Orientation" in Bloomington, Indiana, home to Indiana University. Educational, health, administrative, and cultural issues are covered during the orientation. Drs. Ron Provencher (Northern Illinois University) and Robert McKinley (Michigan State University), have been especially helpful in interpreting Malay life to outgoing faculty. Mrs. Habibah Salleh, representatives of the Malaysian Students Department in Washington, D.C., and Chicago, and Dr. Amir Awang—a visiting Fulbright Scholar from Malaysia—have all contributed to one or more of the orientations. A highlight of each orientation is a Malaysian dinner and cultural



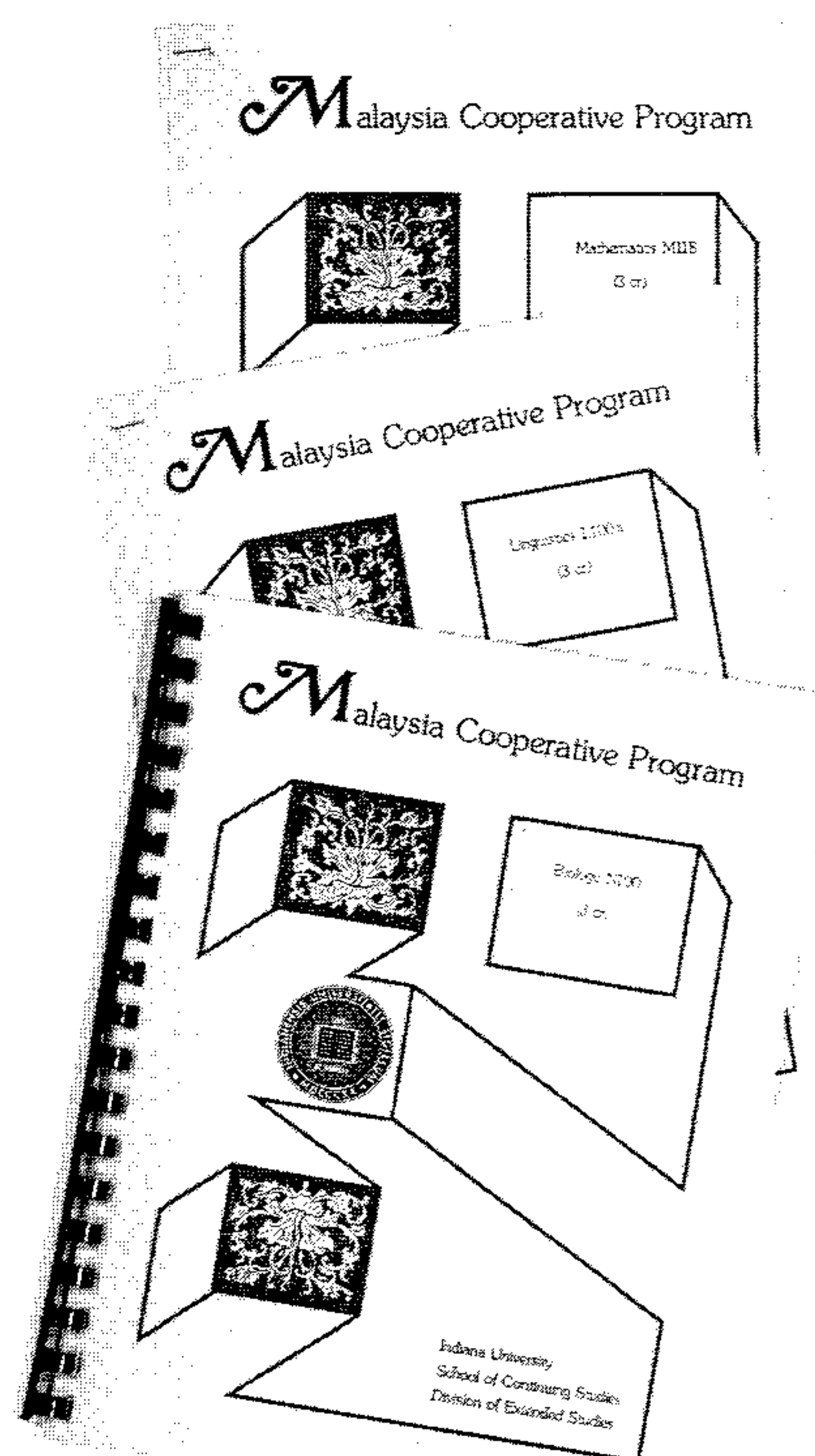
Head of the KPP's Office (right foreground) with ITM's main campus on the hill in the distance.

presentation by the Malaysian Students Association at IU. A concurrent orientation is run for children of faculty families.

Orientation of faculty does not end with departure. The Provost and Director of Administration in Shah Alam conduct a 2-day in-country orientation for arriving faculty. These meetings cover administrative matters, practical concerns such as banking and transportation, and arrangements for housing. ITM provides language instruction in Bahasa Malaysia at the ITM/MUCIA Center and faculty are encouraged to participate.



Curriculum



"An upper division Malaysian student at a midwestern university who saw the selection of courses, commented that 'the ITM/MUCIA students have it rough! As freshmen in the U.S., we could take some classes each semester that were easy for us in order to lighten our load. The students at Shah Alam don't have that option and have to take a full load of tough ones.'"

Another key to the ITM/MUCIA Cooperative Program is the development of a curriculum that offers students a liberal arts education while providing the training (and prerequisites) to succeed in upper division engineering, business, and computer science programs in the U.S. Equally important is the need to deliver these courses from Indiana University with the same quality as on U.S. home campuses. The IU School of Continuing Studies (SCS) has put together a program that meets these objectives with regular Indiana University courses and lets students earn an Associate of General Studies degree.

Quality Control

In its dedication to the quality of the ITM/MUCIA academic program, SCS selects regular academic courses from the IU-Bloomington, Indianapolis, and regional campuses. Students at the ITM/MUCIA Center in Shah Alam use the same textbooks, cover the same topics, and perform the same laboratory experiments as their counterparts at Indiana. The dedication to quality extends to ordering the same laboratory equipment as IU-Bloomington, as well as requiring any changes in syllabi to be approved by participating academic departments at IU. The effort to transplant a quality curriculum from Indiana University to Shah Alam has received the full cooperation of the Chairs and faculty of IU's participating departments.

Although the SCS manages the credit portion of the program, it does not itself authorize credit. Unlike institutions that offer "extension credit" in courses developed and evaluated outside regular academic departments, the SCS works with academic departments on all IU campuses to assure, for example, that Physics courses offered through the School do not differ in content and standards from the same courses taught through the Physics department at Bloomington. To guarantee this equivalence, each course is developed

in close cooperation with its home department. Each SCS course has a formal syllabus with required texts, objectives, class meeting outline, and recommendations for grading standards and assignments, all determined by the course specialist in the regular IU academic department and formally approved by the departmental chair. Academic quality at Shah Alam is also guaranteed by the program's commitment to place its graduates in U.S. institutions. Placement officials at American universities will only continue to welcome applications of ITM/MUCIA graduates if the students demonstrate through their performance that they are adequately prepared for upper division work.

Course Requirements

To prepare students for majors in business and scientific fields, the Shah Alam curriculum includes accounting, business administration, business law, ten courses in mathematics, rigorous lecture/laboratory courses in chemistry and physics, and four courses in computer science. The science and math courses are among the most advanced introductory courses at Indiana University, where they are taken by pre-med students and physics and chemistry majors. The business courses were chosen from the "core curriculum" required by IU's School of Business. Appendix "A" includes a complete listing of the curriculum. An upper division Malaysian student at a midwestern university who saw the selection of courses, commented that "the ITM/MUCIA students have it rough! As freshmen in the U.S., we could take some classes each semester that were easy for us in order to lighten our load. The students at Shah Alam don't have that option and have to take a full load of tough ones."

The original plan was to divide students into two groups—those headed toward majors in business subjects and those headed toward engineering and science. This division quickly became three tracks because



of the large number of students in computer science. However, students have entered the program with majors in at least 45 distinct subject areas, ranging from estate management, to nutrition, political science and instrumentation engineering. Students' particular plans of study are now determined individually according to their majors and their scores on placement tests in English language and mathematics.

In completing the requirements in their respective fields, students will also meet the requirements for the IU Associate of General Studies Degree from the School of Continuing Studies. The SCS has offered the Associate Degree for more than ten years as a service to students whose personal commitments make it impossible to attend campus classes full-time. The requirements for the degree emphasize breadth of preparation; they do not permit a narrow academic focus. From a total of 60 semester hours, students must earn at least twelve credit hours distributed among three areas—arts and humanities, social and behavioral sciences, and science and mathematics—and they may not count toward the degree more than 15 semester hours in any one subject. The ITM/MUCIA students take courses in English, American history, speech communication, sociology, psychology, economics, political science, biology, and the history and philosophy of science to meet these distribution requirements.

Besides helping students to meet

the requirements of the degree, liberal arts courses also teach essential skills in critical thinking and problem solving. All students also take a course in public speaking and another in English composition. Many students also take an advanced intensive writing course. Courses in the humanities and social sciences, which give the opportunity to study American society and the differences between societies, have played a key role in preparing students to deal with the very different world they will find when they continue their studies in the United States.

As the academic program has developed, the curriculum has suited the needs of the students well. In only a very few of the 44 courses offered have faculty suggested any alterations of the syllabi to meet the needs of the ITM/MUCIA students. Because there are no autonomous academic departments in Shah Alam, all such suggestions are returned by SCS to the appropriate academic departments at Indiana University. The departments approved and implemented these changes by designating texts and materials currently in use at Indiana University for the revised Shah Alam syllabi.

Maintaining Student Records

So far more than 15,000 final grades have been reported for Shah Alam students, and students are completing courses at the rate of three to five thousand a term. Students in Shah Alam, like other Indiana University students, are enrolled in courses at the beginning of each term. Like other IU students, Shah Alam

ITM/MUCIA STUDENTS DISTRIBUTION BY MAJORS Intakes I, II, III, IV October 1986

Architecture	37
Business, Accounting, and Economics	272
Mathematics and Science	92
Town Planning and Public Administration	61
Computer Science	199
Engineering	751
Anthropology, Political Science, and Social Science	34
Total	1,446

students are subject to strict rules regarding drops and adds and withdrawals; any changes in a student's schedule in the course of a term must be reported to the registrar and are recorded online. This online accountability, coupled with the fact that the university mainframe records are not directly accessible to advisors in Shah Alam, has required the School of Continuing Studies to develop a microcomputer records management system tailored to the needs of the project. Using this microcomputer system, the School provides Shah Alam advisors with accurate information about student progress, generates the reports the registrar needs to open sections for Shah Alam classes and to enroll Shah Alam students, and audits data coming from Shah Alam and from the registrar's office. The microcomputer assists in the enormous task of scheduling students into the classes they need and helps the School project several terms ahead what students' course needs will be so that Shah Alam will have sufficient faculty and that faculty resources will be used efficiently.

As the focal point for information about students and about university rules and regulations, the School assures the accuracy of the information that will eventually form the student's Indiana University transcript. The School also advises Shah Alam on university procedures so that students are given the opportunity to meet deadlines and requirements without being penalized by the distance between them and their official university records.

Placement



(Right foreground:) Dr. Shamsuddin bin Kassim, Director of Training, Public Services Department, and staff, at a meeting on placement of ITM/MUCIA students.

Proper placement of Malaysian students in U.S. universities is a central concern of the Government agencies that sponsor the students at the ITM/MUCIA Center. The Placement Services Office is thus an integral part of the ITM/MUCIA Cooperative Program. Its primary mandate is the placement of successful ITM/MUCIA Center graduates in appropriate U.S. colleges and universities to complete their baccalaureate education. The office's dual function is to form linkages with suitable U.S. institutions, and to oversee the compilation and submission of student dossiers to these schools. Particular attention is given to the Government of Malaysia's present placement policy of dispersing students as widely as possible within first-rate institutions mainly in the areas of engineering, business, computer science, urban planning and architecture.

Admission of Malaysian Students to U.S. Institutions

The vehicle for student placement in the U.S. has mainly been the Malaysian Student Department (MSD) of the Embassy of Malaysia to date. In recent years, a select number of Division I students have been targeted to seek admission into the most highly competitive institutions in the U.S. via ESL programs in the U.S. Often a contract is made with an ESL program in the U.S. to secure transfer admission at the most highly competitive schools upon graduation from the English training program.

The number of students targeted for direct entry into these most highly competitive universities is small. The majority of Malaysian sponsored students were placed at competitive level institutions. Research conducted in 1985 by the Malaysian-American Commission on Educational Exchange (MACEE) indicates that 85% of government sponsored students coming to the U.S. for the 1985-86 academic year entered competitive or better institutions. Of these students, 12% entered 107 of the 200 more



Mrs. Mary Jo Terkhorn, Coordinator for Placement Services.

selective colleges and universities.

In the summer of 1986, MSD estimated that 15,000 government sponsored students were studying in the U.S. About 9,000 were distributed in the Western region of the U.S., 3,000 in the Midwest, and 3,000 in Eastern schools. As new students enter the U.S., the MSD would like to keep this same geographic ratio. MACEE's 1985 report indicates that Malaysian students tend to distribute themselves among three majors: business (37%), engineering (30%), and computer science (8%) (see accompanying chart) in accord with the priorities of the sponsoring agencies.

The ITM/MUCIA Placement Services Office

When students at the ITM/MUCIA Center have completed a minimum of three terms of academic coursework, the Placement Services Office begins to compile and refer their dossiers to cooperating institutions throughout the U.S. The items in each student's dossier include: The IU transcript, English language proficiency reports (TOEFL scores/ESL faculty evaluations); official overseas/English version of the SPM Certificate (Secondary Leaving Certificate); SAT scores; 1-4 letters of recommendation; a handwritten student statement; the ITM/MUCIA standard application form; the institution's own application form if necessary; the sponsor's certification of financial support; and any necessary application fees. TOEFL and SAT score reports are forwarded directly to Placement Services from the Educational Testing Service.

The IU transcript is added to the student's file upon its arrival at the Placement Services Office and its staff makes a professional determination as to the caliber of the student applicant based on available evidence in the dossier. The Placement staff then determines which institutions would be most appropriate for placement in light of the applicant's qualifications. A copy of the dossier and a letter of transmittal is submitted to these institutions.

The final decision as to which institution a student will be permitted

to enroll in is the responsibility of the sponsoring agency. During the dossier submission stage, the Placement Services Office forwards the names of potential placement institutions for each candidate to the JPA via the Malaysian Student Department (MSD). The Program maintains a close working relationship with JPA. Its Director of Training, Dr. Shamsuddin bin Kassim, visited the Placement Services Office at IU in May 1986. He also consults periodically with the Director of Student Services in Shah Alam on placement and other matters. The JPA has the authority to terminate the admission process at any time during its course and to make final judgment as to which accepting institution a student will attend.

When notified that a U.S. institution will accept an applicant, the Placement Services Office informs the sponsors by forwarding the letter of admission and a U.S. visa eligibility certificate, together with information on campus housing, post-arrival academic advising and orientation programs, course registration dates and procedures, etc. The Placement Services Office will also see to it that institutions admitting ITM/MUCIA Center graduates receive final official transcripts after a student completes the Associate of General Studies degree.

Matching Student to Institution

At present the Placement Services Office maintains contact with 469 U.S. institutions. Its policy is to submit dossiers only to those institutions accredited by their regional associations and by specific professional associations where applicable (i.e., ABET for engineering, AACSB for business and NAAB for architecture). In accordance with the policy of the Jabatan Perkhidmatan Awam, student dossiers will only be submitted to institutions which do not already have large numbers of Malaysian students.

The Placement Services Office has surveyed institutions in its contact system and found that most of the responding institutions (61%) will require students to use the

"The ITM/MUCIA Program anticipates that approximately 280 students will be ready to begin their studies in the U.S. in the fall of 1987."

Malaysian Students Entering U.S. 1985

Business – 37.4%

Engineering – 30.3%

Computer Science – 7.3%

Education Related – 3.8%

Social Science – 3.8%

Architecture – 3.3%

Physical Science – 2.0%

Mathematics/Statistics – 1.3%

Agriculture Related – 1.3%

Fine Arts – 1.3%

All Other – 5.7%

Distribution by field of study.
(Information Taken From The Malaysian-American Commission on Educational Exchange 1985 Report)

institution's own application form rather than the *ITM/MUCIA Standard Application Form*. The survey also revealed the actual (as opposed to published) grade point averages that students need to get into the institutions' business, engineering, architecture and computer science programs. This information is matched with students' backgrounds through a computer program developed specifically for the purpose. The match between student and institution is based on the institution's stated qualifications, the student's overall grades, the student's grades in pre-requisite courses, and the students TOEFL and SAT scores, and the size of the institutions. These matches are then reviewed by Placement Specialists to decide which institutions will receive an individual's dossier in light of the number of Malaysians already enrolled, the number of ITM/MUCIA applicants previously submitted, and the applicants' preferences in terms of size, location, etc.

Prospects for Placement

Thus far, U.S. colleges and universities have been very receptive to the idea of accepting transfer students from the ITM/MUCIA Cooperative Program in Malaysia. Only about 1% of the responding institutions have indicated an unwillingness to consider application of students to their program. Most often, this unwillingness stems from institutional policies that prohibit the transfer of domestic and/or international students into highly competitive programs, or from concern about the adequacy of the current maintenance stipend of Malaysian Government sponsored scholars.

The ITM/MUCIA Program anticipates that approximately 280 students will be ready to begin their studies in the U.S. in the fall of 1987. This number is lower than the 434 who matriculated at the Shah Alam Center in the summer of 1985 because of the students' need for additional English language training and consequently a reduced courseload, and of the fact that those students

who have not maintained a minimum GPA of 2.0 have been dropped from the IU degree program. Students delayed from graduation because of additional required English language work should be ready for January 1988 placement.

A high success rate in placement of students in the non-engineering and non-architecture areas is anticipated. Even though computer science and business now enjoy great popularity as majors in the U.S., there are still many institutions that offer openings. Choices should be available for the ITM/MUCIA graduates.

Placement of students in Intake I had just begun in October 1986, and relatively few responses have been received from institutions to date. The early returns are, however, encouraging with a number of students accepted into strong engineering and business programs. Nevertheless, placement into certain engineering specializations and in architecture will prove more difficult, the more so for students whose grade point averages are below 2.5.

Accredited engineering programs in the U.S. have had to devise methods to choose among a large pool of good applicants for the small number of spaces available for new students. One means is to close the programs to international and/or domestic transfer students. Those institutions that do admit international transfers to their most competitive majors frequently set quotas on the number of students enrolled at a particular time from any one country. In addition to these constraints, only 262 ABET (Accreditation Board of Engineering and Technology) accredited institutions are available in the U.S. as potential placement opportunities.

Even with the Associate degree, engineering and architecture students will need an additional 2 1/2 to 3 years to complete their Bachelor's degrees in the U.S. Because the pre-engineering curriculum at Shah Alam does not have an engineering labs component, we anticipate that several basic pre-engineering courses will have to be made up in the U.S. after the student enters the admitting institution. Many U.S. Bachelor of Engineering programs are in fact



Dr. Jack Wentworth, Dean of the IU School of Business, addressing students during a visit to Shah Alam.

designed to take a minimum of 4 1/2 years to complete. The few ITM/MUCIA students targeted to go on for a Bachelor of Architecture degree will also have a similar problem with deficiencies that need to be made up in the U.S.

Despite these constraints, the overall picture for placement is encouraging. Representatives of the ITM/MUCIA Program made presentations in October and November 1986 to twelve regional meetings of the National Association for Foreign Student Affairs. Many admissions officers were present at these meetings. From their comments, it seems clear that they recognize Indiana University's care and concern over the academic integrity of the Malaysian Program. When the first group of students to be placed perform satisfactorily at their new U.S. institutions, the ITM/MUCIA Cooperative Program will have begun to achieve its goal.

Conclusions and Prospects for the Future

The first two years of the Program show that institutions of higher education as diverse as Indiana University and Institut Teknologi MARA can work together cooperatively in a complex joint venture. When first conceived in Malaysia and given concrete form through MUCIA's proposal, this program was unique in the annals of international education. Now it is a reality and is already serving as a model for other programs in Malaysia and elsewhere.

The Government of Malaysia proposed the twinning concept to meet two objectives. They hoped to provide Malaysian students with two years of American style undergraduate education prior to transfer to the U.S. in order (a) to prepare students more adequately for difficult social adjustments, and (b) to reduce the costs of prolonged stays abroad. On the basis of the evidence, the efforts made by ITM, IU, and MUCIA give every reason to expect that students will transfer, adapt smoothly, and complete their upper division programs in the U.S. in a timely manner.

While much had to be learned in the process, the accomplishments of the first two years are substantial. The ITM/MUCIA Center is fully equipped and operating as a two-year undergraduate program; cooperative administrative arrangements between IU and ITM have been worked out and are operating smoothly; good quality faculty have been attracted to the program and are adapting well to a new environment; and more than 1,440 students are receiving IU credit in classes in which IU standards are being maintained. From the first term in June 1985 through the fall 1986 semester, students had enrolled in a cumulative total of 35,697 credit hours of work. There can be few other programs of comparable size and quality in the history of cooperative international education, and probably none so successfully developed in such a short period of time. The staff of ITM deserve much credit for this.

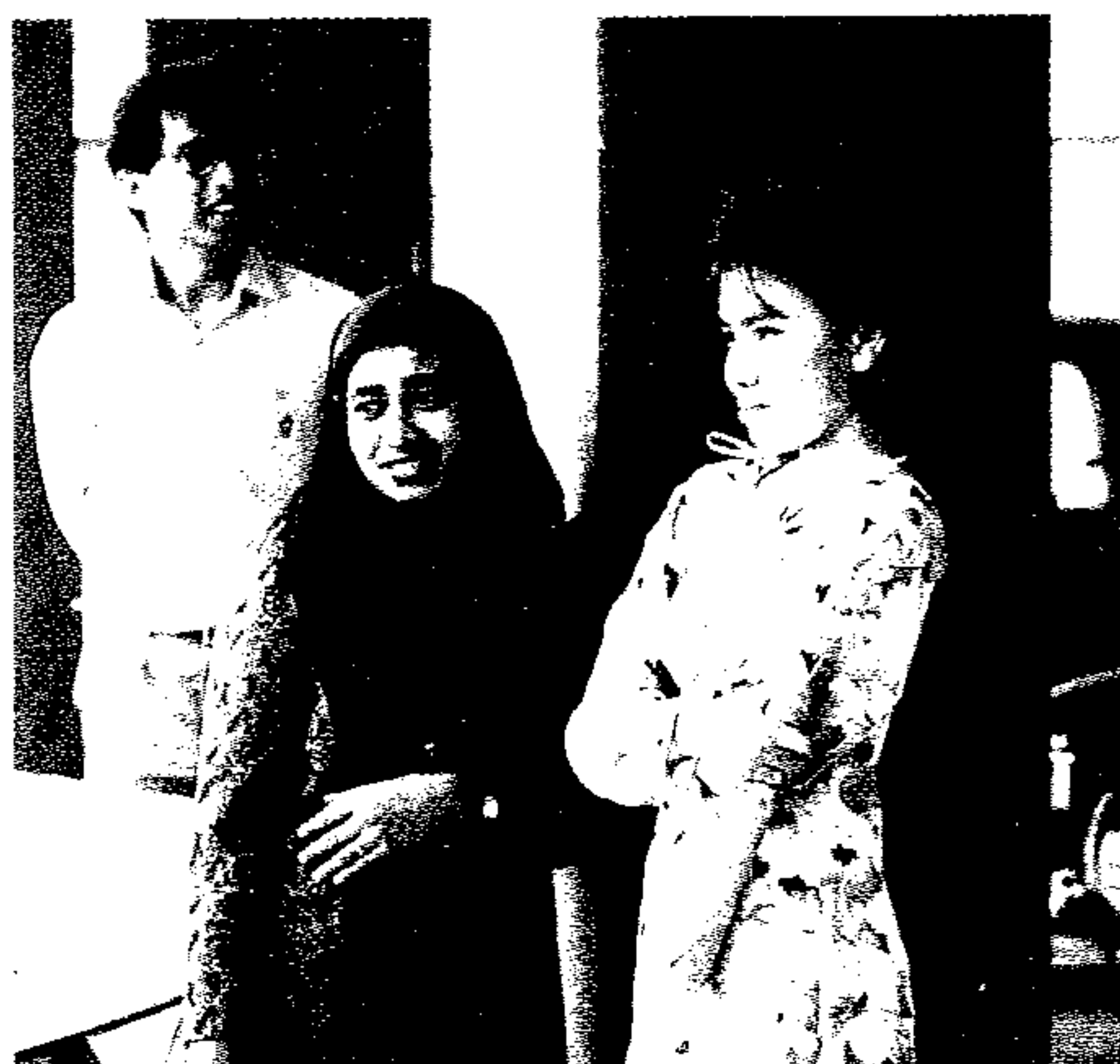
A major objective of the program



to be a "shock absorber" for students to better prepare them for transfer to the U.S. There is every reason to believe that ITM/MUCIA students will make a smooth academic and social transition to the U.S. Academic controls from IU ensure that courses offered at Shah Alam maintain the integrity that they possess at Indiana University. The performance of students at Shah Alam as measured by grades, appears to be comparable to that of IU's freshmen and sophomores, and students receive more English language instruction than they would in most U.S. institutions. As previously noted, ITM/MUCIA faculty are also more experienced teachers than students would typically have in the U.S. at this level of instruction, and classes are smaller (20 to 30 students) than the larger lecture sections common to lower division classes in the U.S. In order to track the performance of students who transfer to the U.S., the program's Placement Office has received permission from most universities to obtain copies of students' upper division grades.

The ITM/MUCIA Center cannot and does not wish to replicate the social environment of an American campus—located as Shah Alam is in Malaysia and with an entirely Malaysian student body. Through the Learning Skills Program, the Advising staff, and a number of special programs, however, students receive a comprehensive orientation to life on an American college campus. They get additional indirect exposure through the content of social science and humanities courses and their interactions with faculty both in the classroom and in organized extracurricular activities. Students are helped and encouraged to prepare for the adjustments they will need to make in the U.S. These efforts are augmented by orientation classes conducted by ITM. Advisors and faculty feel that these experiences and the additional years of personal growth give students a more mature approach to themselves as they near the end of their IU Degree Program.

The cost of the ITM/MUCIA program offers an added benefit to Malaysia—the reduction of foreign



exchange losses through shortened overseas stays. The average costs for a 12-month academic program at a state supported university in the midwestern U.S. approaches US \$13,000. Such costs are considerably higher at private institutions and at most public universities on the East and West coasts of the U.S. The contract expenditures for the ITM/MUCIA Cooperative Program averaged US \$7,233 per student for 12 months of education during the first academic year of the program. There are added costs on the Malaysian side, of course, but all of the expenditures on the Malaysian side and at least some of the contract expenditures occur in Malaysia. The two year program at Shah Alam thus results in a substantial direct savings over the alternative of sending students to the U.S.

Prospects for the Future

The first graduation of ITM/MUCIA students will take place on July 11, 1987. Approximately 280 students will graduate on that date and most will subsequently transfer to upper division programs in the U.S. Early responses to placement efforts are encouraging, but marginal students in Engineering will be difficult to place in competitive, full-fledged Engineering programs.

Prospects for the future are difficult to predict. New student enrollments for the Malaysia Cooperative Program have declined during the past year and will continue at a reduced level for 1987-88. This results from two factors: the opening of other American two-year degree programs and a

reduction in the number of Government scholarships offered in Malaysia. This latter action is necessitated by declining government revenues. These two factors mean that there have been and will be fewer students distributed among more programs in 1987-88 with the immediate effect of reducing student enrollments and the number of faculty teaching in the ITM/MUCIA Cooperative Program. On the other hand, the Ministry of Education has expressed a desire to increase the number of students entering the program—economic circumstances permitting. If this becomes a reality in 1988-89, the ITM/MUCIA Center is well equipped to accommodate the increased enrollments.

In the future, the Program will continue as a quality academic effort with new developments providing new opportunities for students. The spring semester beginning in January 1987 will see the installation of a second Physics laboratory. Expansion of the Math Clinic will assist weaker Math students, and the creation of a Math Colloquium will give exposure to new fields and approaches in Mathematics to all students. Continued development of the Center's library remains a high priority. In addition, contacts between ITM/MUCIA faculty and the faculty at Malaysian universities have grown, resulting in expanded opportunities for cooperation.

Predicting the long-term future is more difficult. The agreement between ITM and MUCIA currently extends through December 1988. If the ITM/MUCIA Cooperative Program continues to meet its objectives, there is reason to think that it will be renewed thereafter on a year by year basis. It is possible that at some point, the administration and staffing of the ITM/MUCIA Center would become the primary responsibility of the Ministry of Education. At that point, the academic program would no longer be offered by Indiana University but IU and MUCIA might remain in an advisory role. Whatever the destiny of the Program, the pioneering roles of MUCIA and ITM will stand as an exciting and innovative venture in cooperative international education.

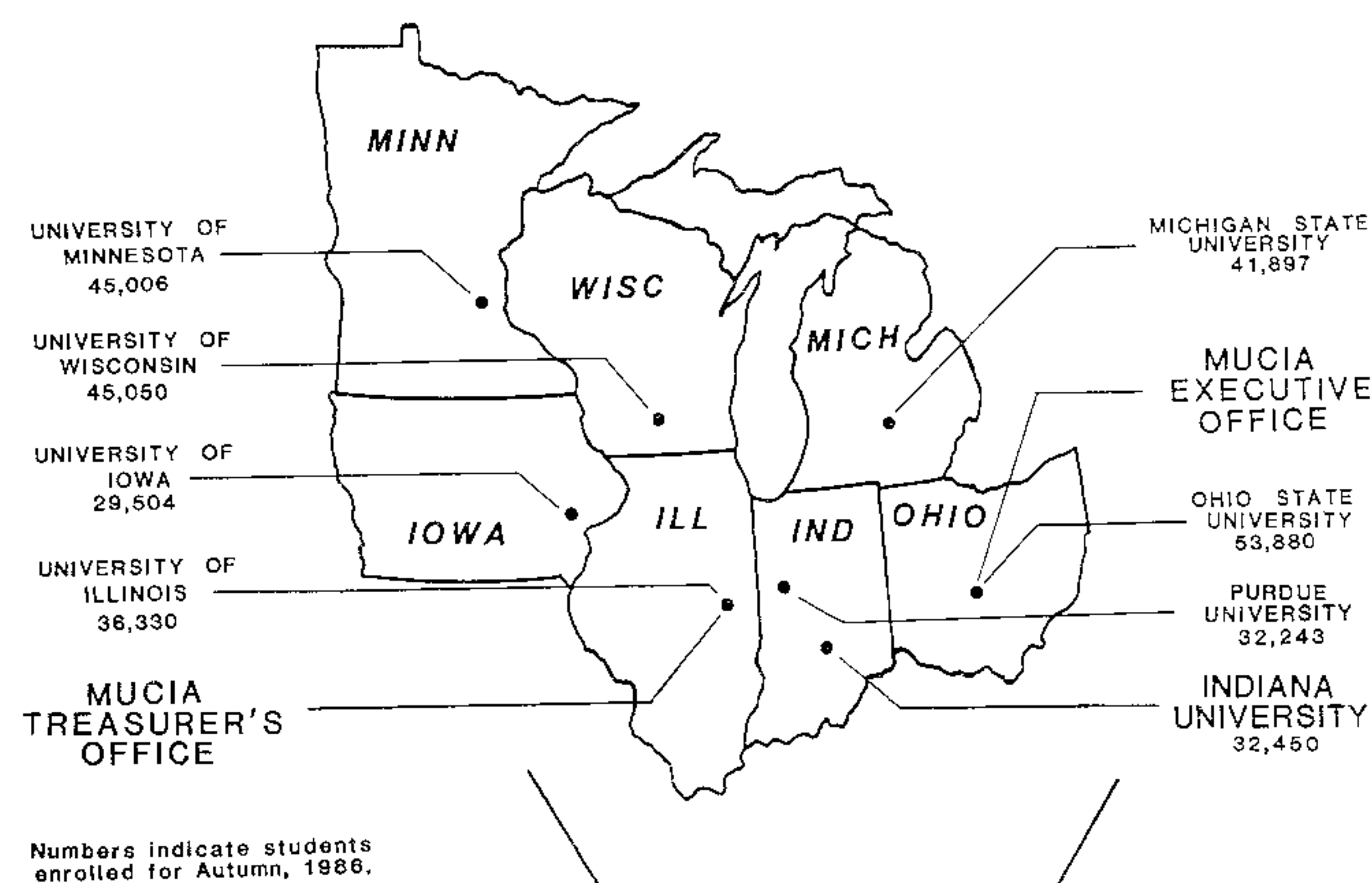
Midwest Universities Consortium for International Activities, Inc.

The Midwest Universities Consortium for International Activities, Inc. (MUCIA) is the oldest and most experienced of the several U.S. consortia involved in international development and education. MUCIA began in 1964 with four universities—Illinois, Indiana, Michigan State, and



(Left to right:) Mr. Kenneth Rogers, Associate Dean for International Student Services (IU); Encik Anwar Ibrahim, Minister of Education; Dr. William Flinn, Executive Director of MUCIA.

MIDWEST UNIVERSITIES CONSORTIUM FOR INTERNATIONAL ACTIVITIES, INC.



Wisconsin. Minnesota joined in 1969, Ohio State in 1975, Iowa in 1977, and Purdue in 1985. MUCIA is the only incorporated offspring of a group of American universities that received international training and research grants from the Ford Foundation in the 1960s, the *raison d'être* resting in large part on the ability of the universities together to do some things that one university could not do. Since the expiration of the Ford grant, MUCIA has acted as a contractor for large scale technical assistance contracts and other educational programs. These contracts are carefully chosen from two areas: long-term institution building projects and educational exchanges of faculty.

The combined resources of MUCIA's eight member universities are impressive and include:

- 1,167 departments in 135 colleges;
- More than 22,930 faculty and 398,900 students;
- 21,490 foreign students (6% of all foreign students in the U.S.)
- More than 100 on-going overseas technical assistance projects, and
- More than 190 faculty/student international exchange programs

Each MUCIA member institution has its own specialties in which it ranks among the worldwide leaders. A study published in the *New York Times*, January 17, 1983, ranked four MUCIA universities among the top ten graduate schools in the U.S. on the basis of overall number of research publications. Several others were ranked among the top ten in chemistry, computer science, and electrical, mechanical and civil engineering. Undergraduate programs in computer science and engineering at MUCIA schools are equally strong, most ranking in the top twenty-five of the nation according to the 1985 *Gorman Report*, a respected study of U.S. academic institutions.

Business programs in MUCIA schools are also nationally recognized as outstanding. *Barron's Guide to Graduate Business Schools* for 1983 rated the business programs of four MUCIA schools in the top twenty nationwide, while the *Gourman Report* of 1985 ratings for undergraduate programs placed all eight MUCIA undergraduate business programs in the top twenty of the U.S.

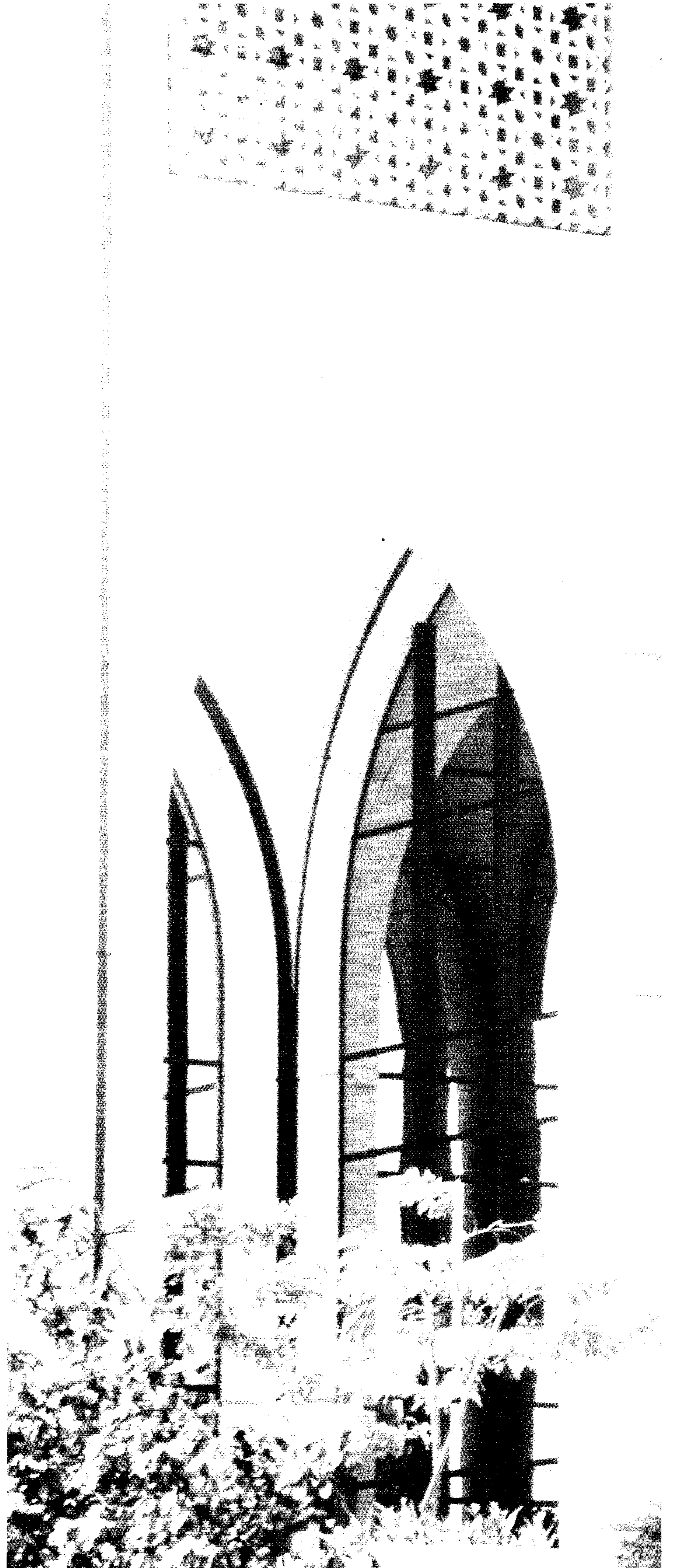
Participant training has been a major component of many of MUCIA's technical assistance projects. MUCIA's approach to training is particularly effective in that the focus is on individualized student assessment and programming. With the Consortium's network of faculty and alumni and the extensive network of placement contacts with outside institutions built over two decades is able to provide the best possible opportunity for student admission. Since its inception, MUCIA has placed over 2000 students in degree granting programs in institutions all across the U.S.—approximately 23% of them in MUCIA universities.

The Consortium is a not-for-profit educational corporation in which the Universities' Presidents are, in effect, the corporation stockholders. The Consortium and its programs are accountable to the Presidents, who meet in Council twice each year. The Presidents appoint a Board of Directors, which meets every two months, composed of Deans or Vice Provosts (titles vary) of international programs, agriculture, engineering, academic affairs, or other areas. This Board is responsible for managing the affairs of the Consortium. Each institution also designates one individual (who may or may not be a Board Member) as campus Liaison Officer to serve as the principal contact between the Executive Office and faculty at member universities' and the Presidents and the Board. Thus MUCIA and its programs receive support from the highest levels of member institutions. For example, during the past five years, nearly all the Presidents have visited and reviewed MUCIA projects.

While MUCIA maintains a fully staffed but small executive office which acts on behalf of the Consortium for project development, contract negotiations, and management oversight, MUCIA typically assigns day-to-day project management to a member school as the lead institution. This permits the Consortium to take advantage of the existing managerial, fiscal, and accounting systems available at the member universities, thus reducing duplication and costs in project management and allowing the small executive staff to focus on programmatic and financial oversight. This division of responsibility in which the primary programmatic, financial and personnel decisions are made by the Consortium, while administrative functions and day-to-day operations are handled by the lead university, has proven effective over twenty years of contract activities.

MUCIA currently manages nine technical assistance projects and three faculty exchange/development projects with a total contract value of approximately US\$ 145 million dollars. The technical assistance projects are in fields such as agriculture, education, business, medicine, public administration, engineering, mathematics, and basic sciences, and are funded by USAID, the World Bank, the Asian Development Bank, and host countries. These contracts emphasize cooperation with institutions such as the University of the West Indies and the Caribbean Regional Agricultural Extension Services in the Leeward Islands; the Faculties of Commerce of Dhaka, Chittagong and Rahshahi Universities in Bangladesh; the University of Indonesia, Gadjah Mada University, Andalas University and the University of North Sumatra in Indonesia.

Successful projects have been completed with La Molina University in Peru, Tribhuvan University in Nepal, Addis Ababa University in Ethiopia, the Medical School of Chiangmai University in Thailand, and the Agricultural institute at Bogor in Indonesia. Even though projects are completed, MUCIA maintains long-term relationships with its sister institutions. MUCIA also has thirteen general agreements with institutions throughout the world, which are intended to facilitate communication and exchange of faculty and students.



Course Offerings and Major Plans of Study

I. Course Listing: All courses offered

BIOLOGY:

N100 Contemporary Biology (3 credit hours)

BUSINESS:

X100 Business Administration: Introduction (3 credit hours)

A201 Introduction to Accounting I (3 credit hours)

A202 Introduction to Accounting II (3 credit hours)

L201 Legal Environment of Business (3 credit hours)

CHEMISTRY:

C105 Principles of Chemistry I (3 credit hours)

C125 Experimental Chemistry I (2 credit hours)

C106 Principles of Chemistry II (Quantitative Chemistry) (3 credit hours)

C126 Experimental Chemistry II (2 credit hours)

COMPUTER SCIENCE:

220 Programming I (3 credit hours)

320 Programming II (3 credit hours)

300 Assembly Language Programming (3 credit hours)

430 Data Structures (3 credit hours)

ECONOMICS:

E201 Principles of Economics I (3 credit hours)

E202 Principles of Economics II (3 credit hours)

E270 Introduction to Statistical Theory in Economics (3 credit hours)

ELECTRICAL ENGINEERING:

EE201 Linear Circuit Analysis I (3 credit hours)

GENERAL ENGINEERING:

EG196 Engineering Problem Solving (3 credit hours)

EG197 Introduction to Computer Programming (3 credit hours)

ENGLISH COMPOSITION:

W131 Elementary Composition (3 credit hours)

W231 Professional Writing Skills (3 credit hours)

L240 Literature and Public Life (3 credit hours)

ENGLISH-AS-A-SECOND LANGUAGE:

L100 English Language Improvement (3 credit hours)

HISTORY AND PHILOSOPHY OF SCIENCE:

X200 Introduction to Scientific Reasoning (3 credit hours)

HISTORY:

T225 Topics in History (3 credit hours)

MATHEMATICS:

- M014 Basic Algebra (4 credit hours)
- M118 Finite Mathematics (3 credit hours)
- M119 Brief Survey of Calculus (3 credit hours)
- M125 Pre-Calculus Mathematics (3 credit hours)
- M126 Trigonometric Functions (2 credit hours)
- M215 Analytical Geometry and Calculus I (5 credit hours)
- M216 Analytical Geometry and Calculus II (5 credit hours)
- M311 Calculus III (3 credit hours)
- M343 Introduction to Differential Equations with Applications I (3 credits)

MECHANICAL ENGINEERING:

- ME270 Basic Mechanics I (3 credit hours)

PHYSICS:

- P120 Energy and Technology (3 credit hours)
- P201 General Physics I (5 credit hours)
- P202 General Physics II (5 credit hours)
- P221 Physics I (5 credit hours)
- P222 Physics II (5 credit hours)

POLITICAL SCIENCE:

- Y107 Introduction to Comparative Politics (3 credit hours)

PSYCHOLOGY:

- P101 Introductory Psychology I (3 credit hours)
- P102 Introductory Psychology II (3 credit hours)

SOCIOLOGY:

- S100 Sociological Analysis of Society (3 credit hours)

SPEECH COMMUNICATION:

- C110 Fundamentals of Speech Communication (3 credit hours)

STUDY SKILLS:

- W100 Computer Awareness and Literacy (3 credit hours)
- X152 Reading/Learning Techniques III (3 credit hours)

***II. Required Courses for the
Pre-Business Program***

ITM/MUCIA students preparing to enter a bachelor's degree program in business will enroll in the following courses during their freshman & sophomore years.

BIOLOGY	N100	Contemporary Biology
BUSINESS	X100	Businesss Administration: Introduction
BUSINESS	A201	Intro to Accounting I
BUSINESS	A202	Intro to Accounting II
BUSINESS	L201	Legal Environment of Business
COMMUNICATIONS	C110	Fundamentals of Speech Communication
COMPUTER SCIENCE	220	Programming I
ECONOMICS	E201	Principles of Economics I (micro)
ECONOMICS	E202	Principles of Economics II (macro)

ECONOMICS	E270	Intro to Statistical Theory in Economics
ENGLISH	W131	Elementary Composition
ENGLISH	W231	Professional Writing Skills
ENGLISH	L240	Literature and Public Life
MATHEMATICS	M118	Finite Mathematics
MATHEMATICS	M119	Brief Survey of Calculus I
PHYSICS	P120	Energy and Technology
POLITICAL SCIENCE	Y107	Intro to Comparative Politics
PSYCHOLOGY	P101	Intro Psychology I (Empirical/Experimental)
PSYCHOLOGY	P102	Intro Psychology II (Applied/Interpersonal)
SOCIOLOGY	S100	Sociological Analysis of Society

III. Required Courses for the Pre-Computer Science Program

ITM/MUCIA students preparing to enter a bachelor's degree program in computer science will enroll in the following courses during their freshman & sophomore years.

COMMUNICATIONS	C110	Fundamentals of Speech Communication
COMPUTER SCIENCE	220	Programming I (PASCAL)
COMPUTER SCIENCE	300	Assembly Language Programming
COMPUTER SCIENCE	320	Programming II
COMPUTER SCIENCE	430	Data Structures
ECONOMICS	E201	Principles of Economics I (micro)
ECONOMICS	E270	Intro to Statistical Theory in Economics
ENGLISH	W131	Elementary Composition
ENGLISH	L240	Literature and Public Life
HISTORY & PHILOSOPHY OF SCIENCE	X200	Intro to Scientific Reasoning
MATHEMATICS	M118	Finite Mathematics
MATHEMATICS	M215	Analytic Geometry & Calculus I
MATHEMATICS	M216	Analytic Geometry & Calculus II
PHYSICS	P201	General Physics I (with lab)
POLITICAL SCIENCE	Y107	Intro to Comparative Politics
PSYCHOLOGY	P101	Intro Psychology I (Empirical/Experimental)
PSYCHOLOGY	P102	Intro Psychology II (Interpersonal/Applied)
SOCIOLOGY	S100	Sociological Analysis of Society

IV. Required Courses for the Pre-Engineering Program

ITM/MUCIA students preparing to enter a bachelor's degree program in engineering will enroll in the following courses during their freshman & sophomore years.

CHEMISTRY	C105	Principles of Chemistry I (for science majors)
CHEMISTRY	C125	Experimental Chemistry I (lab)
CHEMISTRY	C106	Principles of Chemistry II (for science majors)
CHEMISTRY	C126	Experimental Chemistry II (lab)
COMMUNICATIONS	C110	Fundamentals of Speech Communication
COMPUTER SCIENCE	220	Programming I (PASCAL)
ECONOMICS	E201	Principles of Economics I (micro)
ELECTRICAL ENGINEERING	201	Linear Circuit Analysis I
ENGLISH	W131	Elementary Composition
HISTORY	T225	Topics in History
HISTORY & PHILOSOPHY OF SCIENCE	X200	Intro to Scientific Reasoning
MATHEMATICS	M215	Analytic Geometry & Calculus I
MATHEMATICS	M216	Analytic Geometry & Calculus II
MATHEMATICS	M311	Calculus III
PHYSICS	P221	Physics I (for science majors)(w/lab)
PHYSICS	P222	Physics II (for science majors)(w/lab)
PSYCHOLOGY	P101	Intro Psychology I (Empirical/Experimental)
PSYCHOLOGY	P102	Intro Psychology II (Interpersonal/Applied)
SOCIOLOGY	S100	Sociological Analysis of Society
GENERAL ENGINEERING	196	Engineering Problem Solving
GENERAL ENGINEERING	197	Intro to Computer Programming (FORTRAN and PASCAL)
MATHEMATICS	M343	Intro to Differential Equations with Applications I
MECHANICAL ENGINEERING	270	Basic Mechanics I

Student Enrollment by Intake and Major

ITM/MUCIA Cooperative Program in Malaysia

(October, 1986)

Major	Intake I	Intake II	Intake III	Intake IV	Total
Accounting	15	2	1	0	17
Business Admin.	19	52	1	0	73
Business Mgmt.	8	51	20	39	118
Economics	3	39	0	7	49
Town Planning	12	27	1	1	41
Public Admin.	0	12	3	5	20
Internat'l Relations	0	3	0	1	4
Law	0	0	0	0	0
Political Science	1	4	0	3	8
Estate Mgmt.	0	1	1	0	2
Business Education	0	0	13	0	13
Applied Linguistics	0	0	0	15	15
History	0	0	0	1	1
Anthropology/Sociol.	0	1	0	5	6
Computer Science	69	87	14	29	199
Math/Statistics	3	14	3	1	21
Mathematics/Science	0	2	1	8	11
Actuarial Sciences	0	3	0	4	7
Biology/Zoology	3	4	4	4	15
Bacteriology/Pharm.	0	4	0	8	12
Nutrition/Dietetics	2	0	4	8	14
Physics/Chemistry	2	5	0	0	7
Chemistry	0	1	0	3	4
Optometry	0	0	1	0	1
Aeronautical Engr.	14	0	7	1	22
Chemical Engr.	33	1	3	25	62
Civil Engr.	59	77	13	48	197
Civil/Elec. Engr.	0	0	0	0	0
Computer Engr.	0	4	0	0	4
Electrical Engr.	27	71	34	40	172
Elect. Engr. Power	2	0	10	23	35
Elec./Comp. Engr.	59	2	0	0	61
Environmental Engr.	2	0	0	0	2
Industrial Engr.	4	11	6	2	23
Instrumentation Engr.	0	1	3	1	5
Marine Engr.	3	3	0	1	7
Marine/Civil Engr.	0	0	0	0	0
Mining Engr.	7	0	0	1	8
Mining/Petrol. Engr.	6	0	3	0	9
Petrol. Engr.	2	0	0	1	3
Agricultural Engr.	5	2	0	1	8
Quantity Surveying	0	2	0	0	2
Mechanical Engr.	40	34	14	42	130
Architecture	34	0	2	1	37
Quality Control Engr.	0	0	1	0	1
	434	520	163	329	1446

The ITM/MUCIA Project Staff and Participants

(January 1, 1987)

I. Institut Teknologi MARA (ITM)

Dr. Hj. Mohd Mansor Hj. Salleh, Director of ITM

Kolej Pengajian Persediaan (KPP)

Tuan Syed Abdul Kader Al-Junid, Head of KPP
 En. Ahmad Zahdi bin Jamil, Deputy Head of KPP
 En. Ahmad bin Hj. Zainuddin, Deputy Dean of Student Affairs
 En. Rosli bin Sulaiman, Science Coordinator for KPP
 Pn. Halimah Yen, Acting Deputy Registrar
 Pn. Rashidah Abd. Rashid, Assistant Bursar
 En. Osman Mohamed, System Manager for Computer
 Ir. Saa'id bin Hassan, Chief Engineer
 Pn. Norliya Kassim, Librarian
 Cik Norlian Nordin, Administrative Assistant - Travel Arrangement
 En. Zaharol Fathilah Zakaria, Administrative Assistant - Transport
 En. Jaafar bin Latif, Chief Clerk
 En. Suhaimi Hashim, Immigration Work

The ITM Support Staff to MUCIA

En. Shahrani Hj Anuar, The Coordinator
 Cik Kamariah Hj Jaafar, Administrative Assistant
 Pn. Jamaliah Yusof, Stenographer
 Cik Rohana Hj Wok, Clerk
 En. Ahmad Kamal bin Ismail, Clerk
 Cik Siti Mahmudah Sarbini, Typist/Receptionist
 Cik Rozita Nordin, Typist/Machine Operator

Academic Advisors

Ann Holden	Ramlan Mohd Noor
Carol Krueh	Susan Luchs
Carolyn Garber	Siti Nor Hashimah Ahmad
Darleen Swanson	Mary Ellen Anderson
David Andrade	Yap Sew Ching
Nancy Berquist	

Laboratory Assistants

Physics

Nasir Adnan
 Umi Kalsom
 Mohd. Aziz Salleh
 Ahmad Omar Yaman
 Zaleha Ahmad

Chemistry

Mohd Sarmidi Misran
 Abdul Malik
 Mohd Rosli Ramli
 Rashidah Abd. Rashid

Drivers

Hamidon Yusran
 Noh Sayan
 Misnan Sukono
 Md. Sifadin Aman Shamsudin
 Zainal Kadri Hassan
 Pisri Saipie



Audio Visual Center

Noor Shah Abu Hassan, Lab Assistant

Instructors

Physics

En. Abdul Malek Abdullah
En. Mohd Bushro bin Mat Johor
Pn. Nor Aziah bt Alias
Cik Siti Jamiah bt Mohd Yob

Chemistry

Cik Faridah Hanim bt Mohd Jaafar

II. Midwest Universities Consortium for International Activities, Inc. (MUCIA) Field Staff

ITM/MUCIA Center in Shah Alam

Dr. Roy Jumper, Provost and Chief of Party
Mrs. Ruth Miller, Director of Student Services
Ms. Helen Wheeler, Director of Administrative Services
Dr. John Ridge, Student Records and Scheduling
Mrs. Karen Duckworth, Bookkeeper
Mrs. Jone Rennix, Administrative Coordinator

III. Indiana University

Dr. John Lombardi, MUCIA Project Director
Dr. Alex Rabinowitch, Dean, International Programs
Dr. James Weigand, Dean, School of Continuing Studies
Dr. James Hertling, Associate Dean and Chair of Faculty Selection Committee
Dr. Lawrence Keller, Director of Extended Studies
Mrs. Jacqueline Clark, Assistant to the Director of Extended Studies

Office of International Programs

Mrs. Grace Bareikis, Director of Administration
Dr. Charles Reafsnyder, Coordinator for Faculty Recruitment and Training
Mr. Eugene McClain, Financial Officer
Ms. Mary Lou Weaver, Travel Specialist
Ms. Beth Plew, Financial Clerk
Ms. Stacy Walton, Senior Secretary

Placement Services

Mrs. Mary Jo Terkhorn, Coordinator of Placement Services
Mrs. Anne Klarich, Placement Specialist
Mrs. Sue Perin, Placement Specialist
Mrs. Ruth Milholland, Data Base Specialist
Mrs. Julia Broadstreet, Placement Secretary



(Left to right:) Tan Sri Dato Rozhan bin Kuntom, Director General of the Public Services Department; Dr. Jack Hopkins; Mrs. Habibah Salleh, Head of KPP.

School of Continuing Studies

Mr. Lynn Schoch, Associate Director

Mr. Ronald Dusendschon, Coordinator for Student Services

Ms. Peggy Nowling, Senior Records Clerk

Ms. Annabelle Paul, Admission Officer

Mrs. Cheryl Combs, Senior Secretary

Ms. Tammy Hughes, Data Entry Clerk

Advisor to the Program

Mr. Kenneth A. Rogers, Associate Dean and Director of International
Services

IV. MUCLA Executive Office

Dr. William Flinn, Executive Director

Dr. Donald G. McCloud, Associate Executive Director

Dr. Terrance W. Bigalke, Assistant Executive Director

Mr. Sidney Stafford, Treasurer

The ITM/MUCIA Faculty: Past and Present

(January 1, 1987)

I. The Indiana University Degree Program

Discipline/ Name	Title/Dates of Appointment	Home or Previous Institution	Degree
Biology			
Martin-Blinn, Lorena V.	Professor 01/01/86 to 05/31/87	Michigan State University	Ph.D., Science Educ., 1971 M.A., Zoology, 1964
Business			
Craig, Carolyn	Lecturer 01/01/87 to 12/31/87	Indiana University	M.B.A., Internat'l Finance, 1979
Douglas, Sara U.	Assistant Professor 08/01/86 to 05/31/87	University of Illinois	Ph.D., Mass Communications, 1983 M.S., Textile Science
Duckworth, Bruce Edward	Assistant Professor 08/01/86 to 07/31/87	University of Wisconsin Baraboo	M.B.A., Accounting, 1974
Engber, Michael D.	Professor 08/01/85 to 05/31/86	Ball State University	J.D., Law, 1967 M.A., Business Mgt., 1973
Kreul, Lee Malcolm	Professor 08/01/86 to 07/31/87	Purdue University	M.B.A., Hotel & Restaurant Institutional Management
Miller, Joseph Conrad	Professor 08/01/86 to 07/31/87	Indiana University	Ph.D., Economics, 1971 J.D., Law, 1963
Nolan, Lynn	Assistant Professor 01/01/87 to 12/31/87	Ohio State University	J.D., Law, 1985
Business & Statistics			
Narayana, Chem	Professor 01/01/87 to 05/31/88	University of Illinois Chicago	Ph.D., Statistics, 1972 M.A., Mathematics, 1960
Chemistry			
Garber, Lawrence L.	Associate Professor 01/01/86 to 05/31/87	Indiana University South Bend	Ph.D., Chemistry, 1967
Grimm, Alan Arthur	Associate Professor 08/01/86 to 07/31/87	University of Wisconsin Washington County	M.S., Chemistry, 1965
Haight, Gilbert P.	Professor 12/01/85 to 12/31/86	University of Illinois	Ph.D., Chemistry, 1947
Hulme, Roger	Associate Professor 08/01/86 to 07/31/87	Exxon Research & Engineering	Ph.D., Phys. Organic Chemistry
Jasmani, Halila	Lecturer 01/01/86 to 12/31/86	Northern Illinois University	M.S., Chemistry, 1983
Mohd. Hashim, Abdul Halim	Lecturer 01/01/86 to 12/31/86	Ohio University	M.S., Chemistry, 1983
Mullins, John Austin	Professor 01/01/86 to 12/31/87	Michigan State University	Ph.D., Chemistry, 1964
Rawate, Prabhu D.	Professor 01/01/86 to 12/31/87	University of Minnesota Morris	Ph.D., Biochemistry, 1973 M.S., Chemistry, 1957
Saim, Norashikin	Lecturer 01/01/86 to 12/31/86	Kansas State University	M.S., Chemistry, 1985
Seela, Jeffrey	Lecturer 01/01/87 to 07/31/87	Indiana University	M.S., Inorg. Chemistry, 1985 A.B.D., Inorganic Chemistry
Steinpreis, Robert John	Associate Professor 08/01/86 to 07/31/87	University of Wisconsin Stevens Point	D.Sc., Chemistry, 1957 J.D., 1963
Computer Science			
Cleek, Richard K.	Associate Professor 08/01/85 to 08/15/86	University of Wisconsin Washington County	A.B.D., Geography M.A., Geography, 1970
Crozier, Robert G.	Professor 08/01/85 to 08/15/86	Indiana-Purdue University Indianapolis	Ph.D., Entomology, 1966 M.S.F., Forestry, 1962

Eisman, Gerald	Associate Professor 08/01/86 to 07/31/87	St. Mary's College Moraga, California	Ph.D., Mathematics, 1977
Huddleston, John	Professor 01/01/86 to 05/21/86	SUNY-Buffalo	Ph.D., Electrical Engineering
Johnson, Sahnny	Assistant Professor 08/01/85 to 05/31/87	Indiana University	Ph.D., Linguistics, 1979 M.S., Computer Science, 1985
Mand, Lawrence	Associate Professor 01/01/87 to 12/31/87	Indiana University Southeast	Ph.D., Mathematics, 1975
Roberts, Albert	Professor 08/01/85 to 07/31/87	University of Wisconsin Madison	M.S., Computer Science, 1975
Yusoff, Yumus bin	Lecturer 01/01/87 to 12/31/87	Western Michigan University	M.S., Computer Science, 1984
Economics			
Brannman, Lance	Assistant Professor 01/01/87 to 12/31/87	University of Wisconsin Milwaukee	Ph.D., Economics, 1981
Chae, Changhee	Assistant Professor 08/01/86 to 07/31/87	University of Minnesota Morris	Ph.D., Economics, 1984 M.Phil., Economics, 1974
Herschede, Alfred John	Associate Professor 08/01/86 to 07/31/87	Indiana University South Bend	Ph.D., Economics, 1976 M.A., Economics, 1971
Osgood, Theodore	Assistant Professor 01/01/87 to 12/31/87	University of Lowell	Ph.D., Economics, 1957
Engineering			
Boyle, Thomas	Professor 05/15/86 to 07/31/86	Purdue University	Ph.D., Science Education, 1967 M.S., Mechanical Engineering
Buyco, Edgar Hankins	Professor 05/15/86 to 07/31/86	Purdue University Calumet	Ph.D., Engineering, 1961
Hinkle, Charles	Professor 05/15/86 to 07/31/86	Purdue University	Ph.D., Agric. Engineering, 1957 M.S., Agric. Engineering, 1953
Karim, Mohamed Rehan Bin	Assistant Professor 05/31/86 to 07/31/86	Universiti Malaya	M.S., Civil Engineering, 1983
Othman, Ismail Bin	Assistant Professor 05/31/86 to 07/31/86	Universiti Malaya	Ph.D., Structural Engr., 1983
Sorak, Nikola	Associate Professor 05/15/86 to 07/31/86	Purdue University Calumet	M.S., Elec. Engineering, 1968
English Composition			
Gawthrop, Betty Gerow	Associate Professor 08/01/86 to 07/31/87	Purdue University Calumet	Ph.D., English Linguistics, 1973 M.A., English Lang. & Lit., 1966
Jander, Elizabeth Joan	Lecturer 01/01/86 to 12/31/86	Indiana University Northwest	M.A., English, 1971
Paulsen, Frank	Associate Professor 01/01/86 to 10/11/86	Indiana University	Ph.D., Folklore, 1967 M.A., English, 1953
Roberts, Audrey J.	Assistant Professor 08/01/85 to 07/31/87	University of Wisconsin Whitewater	Ph.D., American Literature, 1976 M.A., American Literature, 1968
Health, Physical Education, & Recreation			
Crowell, Bradley	Lecturer 08/01/85 to 07/31/87	Kolej Pengajian Persediaan	M.A., Admin. Childcare Work, 1979
Hansmann-Fong, Judith	Lecturer 01/01/86 to 12/31/86	Kolej Pengajian Persediaan	M.S., Sports Science, 1985
History			
Bieder, Robert	Associate Professor 01/01/87 to 12/31/87	Indiana University	Ph.D., U.S. History, 1972
Mouser, Bruce	Professor 01/01/87 to 12/31/87	University of Wisconsin LaCrosse	Ph.D., History, 1971
History & Philosophy of Science			
Barnes, Eric	Lecturer 01/01/87 to 12/31/87	Indiana University	M.A., Hist. & Phil. of Science M.A., Philosophy, 1986
Baronett, Stanley	Lecturer 08/01/86 to 07/31/87	Indiana University	M.A., Philosophy, 1980 A.B.D., Hist. & Phil. of Science
Blinn, Walter Craig	Professor 01/01/86 to 05/31/87	Michigan State University	Ph.D., Biology & Ecology, 1961 M.S., Wildlife Conserv., 1958

Mathematics

Ainsworth, Kathryn Liese	Assistant Professor 01/01/86 to 05/31/87	University of Louisville	M.A., Mathematics, 1968
Akey, Wayne L.	Lecturer 08/01/85 to 08/15/86	Indiana University East	M.S., Math Education, 1964
Althen, Sandra L.	Lecturer 08/01/85 to 08/15/86	University of Iowa	M.A.T., Mathematics, 1968
Anderson, Carl William	Associate Professor 01/01/86 to 05/31/87	SW Michigan University	M.S., Mathematics, 1967
Brown, John Wesley	Associate Professor 08/01/86 to 07/31/87	University of Illinois	Ph.D., Mathematics, 1966 M.A., Mathematics, 1964 M.S., Math Education
Burford, Frances	Lecturer 08/01/86 to 07/31/87	Galveston College	Ph.D., Mathematics, 1961 M.S., Mathematics, 1958 Ph.D., Math Education, 1980
Clay, Robert E.	Professor 08/01/85 to 07/31/87	Lewis-Clark State College	M.S., Mathematics, 1967 Ph.D., Mathematics, 1971 M.S., Mathematics, 1964 Ph.D., Mathematics, 1966 M.A., Mathematics, 1961 Ph.D., Mathematics, 1962 M.S., Mathematics, 1957 Ph.D., Mathematics, 1966 Ph.D., Philosophy, 1978 D.Ed., Math Education, 1971 M.S., Natural Science, 1961 M.S., Mathematics, 1969
Dees, Roberta L.	Assistant Professor 08/01/86 to 07/31/87	Purdue University Calumet	M.A.T., Mathematics, 1986
Engle, Jessie Ann	Associate Professor 01/01/86 to 12/31/87	Ohio State University Marion	Ph.D., Math Education, 1972
Fan, Sen	Associate Professor 08/01/85 to 08/15/86	University of Minnesota Morris	Ph.D., Mathematics, 1961 M.A., Mathematics, 1951 Ph.D., Mathematics, 1968 M.S., Mathematics, 1953 D.Ed., Higher Education, 1970 M.S., Mathematics, 1960 Ph.D., Mathematics, 1977 M.S., Mathematics, 1962 D.Ed., Mathematics, 1968
Fitzgerald, William M.	Professor 08/01/85 to 08/15/86	Michigan State University	Ph.D., Math & Statistics, 1964
Frascella, William J.	Associate Professor 08/01/85 to 08/15/86	Indiana University South Bend	Ph.D., Math Education, 1976 M.S., Mathematics, 1965 Ph.D., Behavior Science, 1967 M.Ed., Math Education, 1961 M.A., Mathematics, 1963
Johnson, Herbert N.	Professor 08/01/86 to 07/31/87	Winona State University	M.S., Mathematics, 1983 M.A., Computer Science, 1974 M.A., Mathematics, 1967
King, Mary K.	Assistant Professor 08/01/85 to 08/15/86	Maryville College	Ph.D., Mathematics, 1964
Klein, Mitchel	Lecturer 01/01/87 to 12/31/87	Indiana University	
McGinty, Robert L.	Professor 01/01/86 to 12/31/86	Northern Michigan University	
Montzingo, Lloyd J.	Professor 08/01/86 to 07/31/87	Seattle Pacific University	
Patil, Dattatraya J.	Associate Professor 08/01/86 to 07/31/87	University of Wisconsin Milwaukee	
Ridge, John	Associate Professor 08/01/86 to 07/31/87	University of Wisconsin Eau Claire	
Sadler, Walter LaVern	Associate Professor 08/01/86 to 07/31/87	University of Wisconsin Waukesha	
Stortz, Clarence	Professor 01/01/87 to 12/31/87	Northern Michigan University	
Vadlamudi, Pitchaiah	Professor 01/01/87 to 12/31/87	University of Wisconsin River Falls	
Watson, James Otis	Professor 08/01/86 to 07/31/87	Adrian College	
Wheatley, Grayson Hubbard	Professor 08/01/86 to 07/31/87	Purdue University	
Wohlenberg, Emilie H.	Lecturer 01/01/86 to 12/31/87	Indiana University	

Mathematics & Computer Science

Greene, Henry J.	Assistant Professor 08/15/85 to 08/15/86	University of Rhode Island
Proffitt, Anita Jeanette	Assistant Professor 01/01/86 to 07/31/87	Indiana-Purdue University Indianapolis
Smogor, Louis	Associate Professor 01/01/87 to 12/31/87	DePauw University

Physics

Beeken, Robert B.	Associate Professor 08/01/85 to 08/15/86	University of Wisconsin Stevens Point	Ph.D., Physics, 1977 M.A., Physics, 1974 Ph.D., Physics, 1953 M.S., Elec. Engineering, 1948
Blatt, Frank J.	Professor 08/01/86 to 07/31/87	Michigan State University	

Dayton, Irving	Professor 08/01/86 to 07/31/87	Montana College Mineral Sci.	Ph.D., Physics, 1952
DiLavore, Philip	Professor 08/01/86 to 07/31/87	Indiana State University M.S., Physics, 1961	Ph.D., Atomic Physics, 1967
Erickson, Richard	Professor 01/01/87 to 12/31/87	Ohio State University	Ph.D., Physics, 1952
Ivory, John	Associate Professor 08/01/86 to 07/31/87	Dupage College Illinois	Ph.D., Physics, 1954 M.S., Physics & Math, 1952
Lokken, Ronald A.	Professor 08/01/86 to 07/31/87	University of Wisconsin Stevens Point	Ph.D., Physics, 1973 M.S., Physics, 1964
Schlueter, Donald Jerome	Associate Professor 08/01/86 to 07/31/87	Purdue University	Ph.D., Physics, 1964 M.S., Physics, 1957
Thomas, Clinton	Associate Professor 01/01/87 to 12/31/87	Eastern Michigan University	M.S., Physics, 1949 M.S., Mathematics, 1953
Wills, John G.	Professor 07/01/86 to 07/31/87	Indiana University	Ph.D., Physics, 1963 M.S., Physics, 1956
Physics and Engineering			
Carroll, Matthew	Assistant Professor 08/01/86 to 07/31/87	U.S. Dept. of Energy Washington, DC	Ph.D., Mechanical Engr., 1986 M.S., Mechanical Engr., 1982
Political Science			
Douglas, Stephen A.	Associate Professor 01/01/86 to 05/31/87	University of Illinois	Ph.D., Political Science, 1967 M.S., Political Science, 1961
Lee, Jooinn (Joseph)	Professor 01/01/86 to 05/31/87	University of Minnesota Morris	Ph.D., Political Science, 1962
Psychology			
Agüero, Joseph Edward	Assistant Professor 01/01/86 to 12/31/87	University of Wisconsin Fox Valley	Ph.D., Social Personality, 1983 M.S., Psychology, 1977
Ainsworth, Laban Linton	Professor 01/01/86 to 05/31/87	Indiana University Southeast	Ph.D., Counseling Psych., 1957 M.A., Experimental Psych., 1953
Ascher-Svanum, Haya	Assistant Professor 08/01/86 to 07/31/87	Indiana-Purdue University Indianapolis	Ph.D., Clinical Psychology, 1982 M.A., Clinical Psychology, 1977
Bringle, Robert	Associate Professor 01/01/87 to 12/31/87	Indiana-Purdue University Indianapolis	Ph.D., Social Psychology, 1974
Christie, Daniel John	Associate Professor 08/01/86 to 07/31/87	Ohio State University Marion	Ph.D., Developmental Psy., 1975
Cleek, Margaret M.	Associate Professor 08/01/85 to 08/15/86	University of Wisconsin Washington County	Ph.D., Developmental Psy., 1978 M.A., Psychology, 1973
Hanford, Peter V.	Professor 08/01/85 to 08/15/86	Indiana-Purdue University Indianapolis	Ph.D., 1958 M.S., 1953
Muir, Lois Elaine	Assistant Professor 08/01/86 to 07/31/87	University of Wisconsin Eau Claire	Ph.D., Psychology, 1982 M.S., Child Development, 1978
Nolan, Jeremiah	Professor 01/01/87 to 12/31/87	Ohio State University	Ph.D., Psychology, 1966
Svanum, Soren	Associate Professor 08/01/86 to 07/31/87	Indiana-Purdue University Indianapolis	Ph.D., Clinical Psychology, 1976 M.A., Psychology, 1973
Sociology			
Fritschner, Linda M.	Associate Professor 08/01/85 to 08/15/86	Indiana University South Bend	Ph.D., Sociology, 1973 M.A., Sociology, 1968
Moore, Keith M.	Assistant Professor 08/01/85 to 08/15/86	University of Wisconsin Oshkosh	Ph.D., Sociology, 1984 M.S., 1978
Natsis, Marina	Associate Professor 08/01/86 to 07/31/87	Indiana University Kokomo	Ph.D., Sociology, 1974 M.S., Sociology, 1966
Norr, James	Assistant Professor 08/01/86 to 07/31/87	University of Illinois Chicago	A.B.D., Sociology M.A., Sociology, 1968
Norr, Kathleen	Assistant Professor 08/01/86 to 07/31/87	University of Illinois Chicago	Ph.D., Sociology, 1972 M.A., Sociology, 1967
Smith, James O.	Associate Professor 08/01/86 to 07/31/87	University of Wisconsin Milwaukee	Ph.D., Sociology, 1969 M.A., Sociology, 1960

Speech Communication

Berquist, Goodwin F.	Professor 08/01/85 to 07/31/87	Ohio State University	Ph.D., 1958 M.A., 1954
Burns, David G.	Associate Professor 08/01/85 to 08/15/86	Indiana-Purdue University Indianapolis	Ph.D., Rhetoric/Dramatic Literature, 1970 M.S., Educ. & Psychology, 1954 A.B.D., Speech Communications
Dunlap, Lillian R.	Lecturer 08/01/85 to 07/31/87	Indiana University	
Hyde, Gregory J.	Lecturer 06/01/85 to 05/31/87	Michigan State University	M.A., ESL, 1983 A.B.D., Speech Communications
Kemp, Robert L.	Assistant Professor 08/01/85 to 08/15/86	University of Iowa	M.A., Communications, 1961
Pepperdine, Warren H.	Professor 08/01/86 to 07/31/87	Indiana University South Bend	Ph.D., Speech Communications
Ridge, Alice Ann	Assistant Professor 08/01/86 to 07/31/87	University of Wisconsin Eau Claire	M.A., Speech, 1961
Wagener, B. Bruce	Associate Professor 05/15/86 to 07/31/87	Indiana University	Ph.D., Communication, 1968 M.A., Communication, 1957

II. The Bridge Program

Discipline/ Name	Title/Dates of Appointment	Home or Previous Institution	Degree
Education			
Bensky, Sandra	Lecturer 08/01/86 to 05/31/87	University of Maryland	M.Ed., Reading, 1985
Gabehart, Mark E.	Lecturer 08/01/86 to 07/31/87	Indiana University	M.S., Reading Education, 1985
Heine, David A.	Lecturer 06/01/85 to 12/15/85	Indiana University	M.A., English, 1978
Heine, Patricia J.	Lecturer 06/01/85 to 12/15/85	Indiana University	M.A., Education, 1978
Ignash, Jan M.	Lecturer 06/01/85 to 05/31/87	Michigan State University	M.A., TESOL, 1983
Johnson, Janis Marie	Lecturer 10/21/85 to 12/31/85	University of Minnesota	M.A., Educational Psych., 1985
Lee, Claire	Librarian 01/01/87 to 07/31/87	University of Minnesota Morris	M.L.S., 1971
McIntyre, Susan	Lecturer 06/01/86 to 07/31/86	Indiana University	M.A., Education, 1982
Metler, Mary Drew	Lecturer 01/01/87 to 12/31/87	Eastern Michigan University	S.A., English/Reading, 1969 M.A., Elementary Educ., 1964
Pugh, Sharon	Associate Professor 06/01/85 to 12/15/85 06/01/86 to 12/31/86	Indiana University	Ph.D., Education, 1978
Quealy, Roger J.	Professor 08/01/86 to 07/31/87	University of Wisconsin Eau Claire	Ed.D., Reading Education, 1967 M.S.T., Education, 1962
Romano, John L.	Associate Professor 06/15/85 to 05/31/86	University of Minnesota	Ph.D., Counseling Psych., 1976 M.Ed., Counseling Educ., 1968
Schelske, Mark Theodore	Lecturer 10/21/85 to 12/31/85	University of Minnesota	M.A., TESOL, 1980 M.A., Education, 1981
Sheridan, E. Marcia	Professor 08/01/86 to 07/31/87	Indiana University South Bend	Ph.D., Reading Education, 1973 M.Ed., Elementary Educ., 1970
Swisher, Karen E.	Lecturer 06/01/85 to 05/31/87	Ohio State University	A.B.D., Mildly Handicapped M.A., Reading Education, 1975
Tulley, Michael	Assistant Professor 08/01/86 to 07/31/87	Indiana University Kokomo	Ph.D., Education, 1983 M.S., Education, 1977

Education & English*

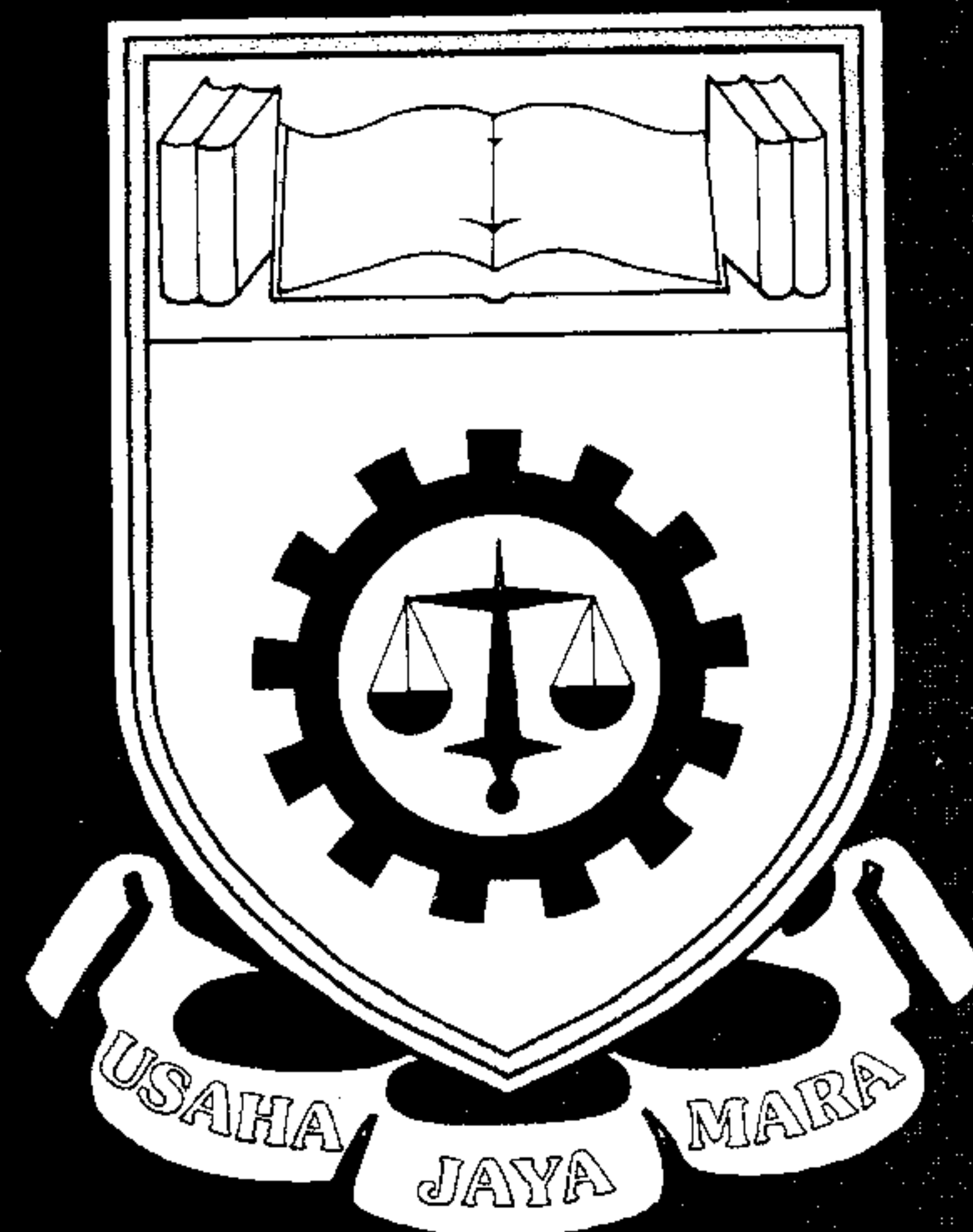
Davis, Barbara G.	Assistant Professor 06/01/85 to 05/31/87	Indiana-Purdue University Indianapolis	Ph.D., Linguistics, 1973
Johnson, Linda L.	Associate Professor 06/01/85 to 05/31/86	University of Iowa	Ph.D., Reading, 1980 M.A., Secondary Education, 1974
Kelly, Craig A.	Lecturer 06/01/85 to 05/31/87	University of Illinois	M.A., TESL, 1985 M.A., English, 1985
Solaro, Barbara C.	Assistant Professor 06/01/85 to 05/31/87	Indiana University	Ph.D., English, 1986 Ph.D., American Studies, 1986

Linguistics

Beachy, Barbara L.	Lecturer 06/01/85 to 05/31/87	University of Illinois	M.A., TESOL, 1985
Bier, Richard	Lecturer 01/01/87 to 12/31/87	Indiana University	M.A., Applied Linguistics, 1971 A.B.D., English Education
Blackstone, Brad F.	Lecturer 06/01/85 to 05/31/87	Ohio State University	M.A., TESOL, 1984
Brissenden, Margaret T.	Lecturer 01/01/86 to 12/31/86	Cuyahoga Community College	M.A., TESOL, 1982
Brown, Ronald	Lecturer 10/15/86 to 10/14/87	Michigan State University	M.A., ESL, 1985
Cameron, Dorothy Loew	Lecturer 01/01/86 to 05/31/87	Columbus Technical Institute	M.A., TESOL, 1985 M.A., English, 1976
Casey-Mast, Laura	Lecturer 10/15/86 to 10/14/87	University of Illinois	M.A., ESL, 1986
Castelaz, Daniel M.	Lecturer 01/01/86 to 12/31/87	SE Missouri State University	M.A., TESOL, 1985 M.F.A., 1976
Caterino, Patty S.	Lecturer 01/01/86 to 12/31/86	Iowa State University	M.S., Secondary Education, 1983
Chrissinger, Kathi Sue	Lecturer 01/01/86 to 12/31/87	Ohio State University	M.A., TESOL, 1984 M.A., Spanish, 1984
Cook, Sally J.	Lecturer 01/01/86 to 05/31/87	Indiana University	M.A., Applied Linguistics, 1984
Diemer, Timothy Todd	Lecturer 01/01/86 to 12/31/86	Ohio State University	M.A., International Admin.
Ellis, Mary	Lecturer 01/01/86 to 12/31/87	University of Wisconsin Milwaukee	M.S., Urban/Overseas Stu., 1979 M.L.S., Eng./Libr. Science, 1977
Engber, Cheryl A.	Lecturer 06/01/85 to 05/31/86	Indiana University	M.A., TESOL, 1979 M.A., Spanish, 1974
Farley, Timothy Leroy	Lecturer 01/01/86 to 05/31/87	Marion College	M.A., Applied Linguistics, 1985 M.A.T., French, 1984
Fredrickson, Terry L.	Lecturer 06/01/85 to 05/31/87	University of Minnesota	M.A., TESOL, 1985
Hagedorn, John	Lecturer 10/15/86 to 10/14/87	USAID-Department of State	M.A., TESOL, 1986 Washington, DC
Harshbarger, Lisa	Lecturer 06/01/85 to 05/31/86	Indiana University	M.A., Applied Linguistics, 1985
Hodor, Mary Jean	Assistant Professor 01/01/86 to 12/31/87	Defiance College	M.A., English, 1960
Howard, Marlin Glenn	Lecturer 10/21/85 to 12/31/85	Indiana University	M.S., Education, 1975 M.S., Education in TESOL, 1976
Hvitfeldt, Christina G.	Assistant Professor 06/01/85 to 05/31/87	University of Wisconsin	Ph.D., Adult Education, 1982 M.A., Applied Linguistics, 1973
Kelley, David Byron	Lecturer 01/01/86 to 12/31/86	Indiana University	A.B.D., Applied Linguistics M.A., Applied Linguistics, 1983
Lewins, Charles Edward	Lecturer 01/01/86 to 05/31/87	Indiana University	M.A., Applied Linguistics, 1984
Lynch, Joseph Edward	Lecturer 10/21/85 to 07/31/87	Indiana University	M.S., Applied Linguistics, 1977
Martin, Virginia Sue	Lecturer 10/21/85 to 12/31/85	Indiana University	M.A., Applied Linguistics, 1984
Nittis, Dion W.	Assistant Professor 01/01/86 to 12/31/87	Boston University	Ph.D., English, 1971 M.A., English, 1967
Parker, Randolph	Assistant Professor 10/21/85 to 12/31/85	Indiana University	Ph.D., English Lang. & Lit.

Pherson, Valli	Assistant Professor 01/01/86 to 12/31/87	Indiana-Purdue University Fort Wayne	Ed.D., Adult Education, 1985 M.S., Reading/Counseling, 1980 M.S., TESOL, 1980
Ragan, Jarrett Davis	Lecturer 10/21/85 to 12/31/85 10/15/86 to 10/14/87	Florida International U.	
Rennix, Richard	Lecturer 08/01/86 to 07/31/87	University of Illinois	M.A., ESL, 1986
Roord, Bernard Anton	Lecturer 10/21/85 to 07/31/87	Indiana Vocational Tech.	M.A., TESOL, 1973 A.B.D., TESOL & Literature Ph.D., English, 1967
Rulon, Curt M.	Assistant Professor 01/01/86 to 12/31/87	North Texas State University	
Rutkowski, Rita K.	Lecturer 01/01/86 to 12/31/86	University of Wisconsin Milwaukee	M.A.T., TESOL/Spanish, 1985
Schewe, Nancy Jean	Lecturer 01/01/86 to 12/31/86	University of Michigan	M.A., Applied Linguistics, 1981
Staten, Jean Ellen	Lecturer 01/01/86 to 12/31/87	Ohio State University	M.A., Linguistics, 1984 M.A., Biblical Studies, 1980 M.A., TESOL, 1985
Terry, Marlee	Lecturer 08/01/86 to 07/31/87	Michigan State University	
Wright, John Rowland	Lecturer 01/01/86 to 12/31/87	Indiana University	M.Div., Theology, 1983 M.A., Linguistics, 1985 M.A., Applied Linguistics, 1982
Zai, Olga Hlavata	Lecturer 01/01/86 to 12/31/86	Indiana University	
Zeller, Karen L.	Lecturer 01/01/86 to 12/31/87	Pacific Lutheran University	M.A.T., ESL, 1974
Zwier, Lawrence	Lecturer 10/15/86 to 10/14/87	University of Minnesota	M.A., TESOL, 1981
Linguistics & English*			
Beachy, Bradley L.	Lecturer 06/01/85 to 05/31/87	University of Illinois	M.A., TESOL, 1985 M.A., English Literature, 1980 Ph.D., Linguistics, 1982
Hvitfeldt, Robert D.	Assistant Professor 06/01/85 to 05/31/87	University of Wisconsin	M.A., Linguistics, 1973 Ph.D., English Education, 1983 M.S., Applied Linguistics, 1976
Record, Alison K.	Assistant Professor 06/01/85 to 05/31/87	Arkansas State University	

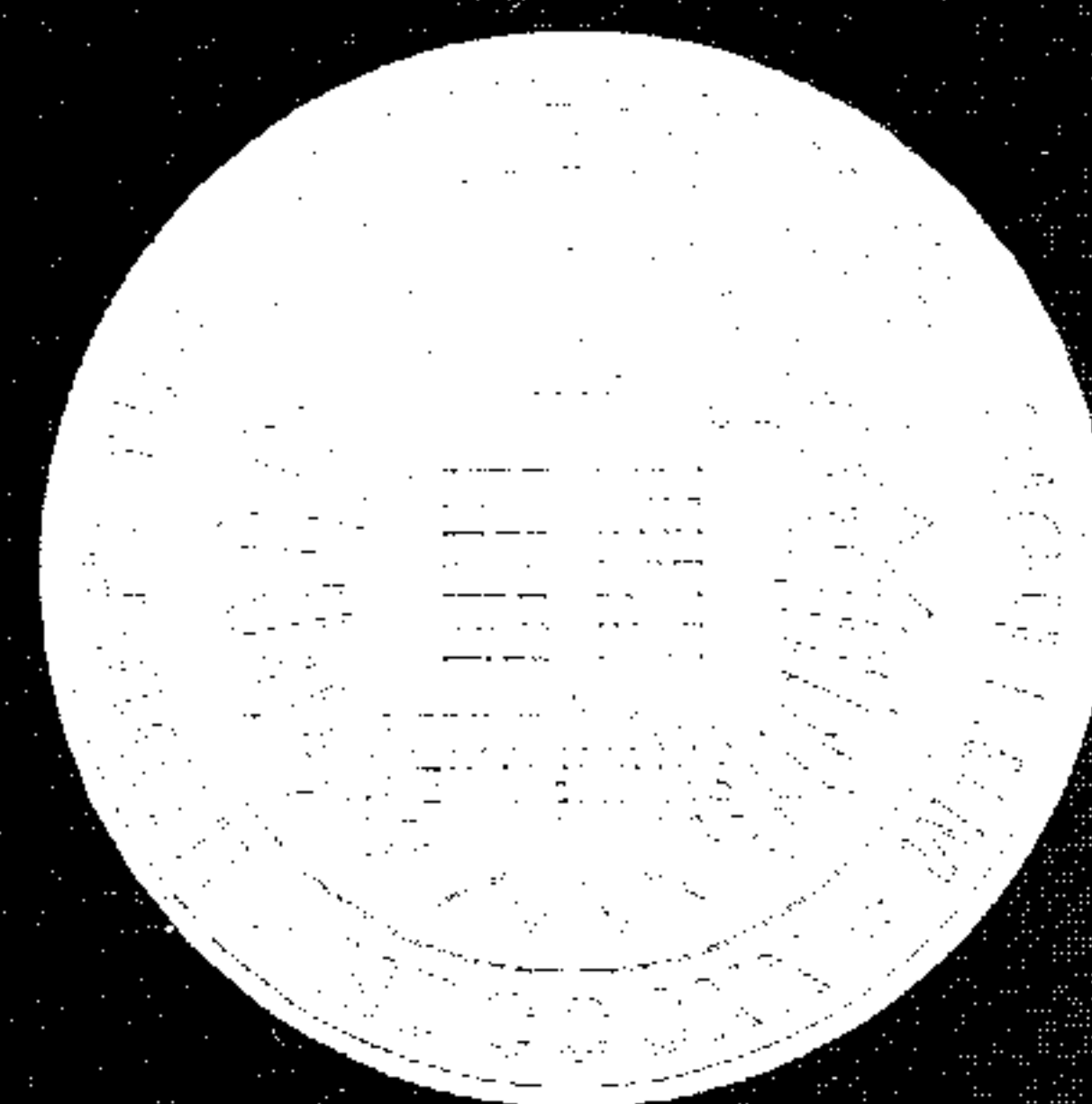
***Note:** These faculty members have also been approved by the Indiana University Department of English to teach English Composition W131 in the IU Degree Program.



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