Tolume LXXXII

Pasadena, California: Friday, March 6, 1981



expecting the bloody Spanish Inquisition!" said Candide, as he kewered the Inquisitor in **Candide**, which completed a successful run #Ramo Auditorium last weekend. For pix and more, see page four.

Candide, performed last Caltech and frected by Shirley Marneus, as a smashing success. From he start, the play caught the udience and held them in elight throughout the evening. lattended the Saturday 8 pm reformance, almost by pure hance. To people who are ally out of touch, like myself, nay I suggest to next year's man production to advertise billboards and skymiters?) When the show ended left me quite content, and so a little deaf from the overhelming applause.

I thought that one of the lost amusing characters in this 10w was Pacquette, played by aren Ribbens. She did a lendid job, amusing the auence with both her facial exressions and also her ample ysical charms. Somehow auences always love the dumb isty blonde image.

The female lead, Madam megonde, played by Jean 60thold, turned out to be quite igood singer. Her singing was nost enjoyable even to my meducated ears. She did an exellent job all through the

was played by Caltech's own computing science department's programs will have their subhidden talent, Chris Kingsley. Kingsley was a good choice for character of him.

Bruce McLaughlin did a terrific job in his trio role of Voltaire, Pangloss, and "the Host". When he played the Host he looked a little like Dr. Feynman. When playing the part of the nutty Dr. Pangloss, McLaughlin must have enjoyed his satire on science. Certainly the audience did, which was the best of all possible audiences in this best of all possible worlds.

All in all the play was enjoyable to see and culturally enlightening at the same time.

A point of interest: that is all fine and dandy, you may say, but what do you care if you didn't see it? That, my friend, is a real problem. Caltech has a lot of events that can make your brief stay at the Institute more pleasant. So just be aware that such events do

- Arthur Sheiman

Reagan's Cuts to Batter Caltech

Humanities Research

By Tracy Furutani

The future of basic research in the humanities is in danger, according to Dr. J. Morgan Kousser, professor of history and social sciences, due to the severe cuts by the Reagan Administration in academic programs supported by the federal government.

"Reagan doesn't give a The male lead, Candide, damn about the humanities,' Dr. Kousser continued. Many sidies cut out from under them by David Stockman, head of Candide and made a believable the OMB because "Reagan doesn't care about policy.' These programs include the NEH (National Endowment for the Humanities) and NEA (National Endowment for the Arts), both of which will suffer 50% slashes (60% including inflation) in their already meager (\$35 million total) budgets. Dr. Kousser noted that while the total of these cuts is not even enough to buy a single MX Missile Track, the programs are indispensable in furthering research. For instance, the NEH now provides for summer internships and seminars, and regular fellowships (three Caltech professors got NEH fellowships this year). These would be dropped if the cuts went through.

Dr. Kousser, whose specialty is quantitative social scientific history, is currently working on a book which he

CONTINUED ON PAGE 6

Financial Aid **Reduced Drastically**

By H. N. I. M.

It can be all too easy for students at Caltech to get wrapped up in the world of Caltech and ignore what goes on elsewhere. This is unfortunate because events in the real world can have a dramatic effect on life at Caltech. One case in point is President Reagan's attempt to balance the budget and cut government costs, since major cuts are proposed in programs which aid college students.

The proposed aid cuts will affect the GSL BEOG (Pell Grant), NDSL, and Social Security Student Benefit Programs greatly. For example, the current GSL program does not require students to establish financial need in order to qualify for a loan and makes the Federal government responsible for interest payments while the student is in school. Under the new proposals only students able to demonstrate financial need after all other forms of aid and resources are counted will be able to qualify for loans. Also the federal interest subsidy will cease. Similarly, the new proposals for Pell Grant would require a student and his or her family to make a greater contribution-i.e., a net effect of reducing grants. In addition, the amount of money budgeted for the NDSL program will be sharply reduced, while Social Security benefits will be phased out completely over the next four years.

According to Linda Berkshire, Caltech's Director of Financial Aid, the Reagan Administration hopes that the cuts in the Pell Grant, NDSL and Student Social Security Programs will save 1.5 billion dollars. More importantly, the administration hopes to cut the GSL program back from its annual value of 18.8 billion dollars to 10 billion dollars. However, the potential cut in the GSL program is actually much greater. If the federal interest subsidy is cancelled, there will be no inducement for banks to participate (since the interest will just pile up until the student graduates). Thus, within a year or two, there would be virtually no source of GSL loans for any students and the program would end completely.

While the proposed changes will affect all students, they will affect students from midfamilies income

(\$25,000 - \$40,000 a year) the most. At present many such students are able to obtain GSL loans and minimum Pell Grants, even though they are not "needy" enough to qualify for other forms of aid. Under the new proposals such students are not "truly needy' and would not be able to obtain any aid at all. The situation is particularly bad at high cost schools such as Caltech, where the total cost can represent 20% or more of the disposable income for middle class families.

If passed, the Reagan Administration's proposed aid cuts would affect Caltech students in the following ways. Roughly half the students receiving GSL loans would become ineligible. For the 1980-81 school year alone, Caltech undergraduates borrowed over half a million GSL dollars through and-well, you bean divide by two. Also those students currently receiving NDSL loans could expect the amount to be reduced by four to five hundred dollars. Students receiving Pell Grants can expect similar reductions. Overall, the amount of federal aid to Caltech undergraduates could easily drop by a half a million dollars or more from its cur-

All this same time the cost of attending Caltech is expected to rise to \$10,360 for the 1981-82 school year. Given the rising costs and reduced aid, many students may find themselves unable to afford to go to Caltech. The Caltech Administration is aware of this problem, and is looking into ways to deal with it. Conceivably, the Institute could increase its own grants to help make up for the shortfall in federal aid. However, this would require a rather extensive fund raising drive and does not get to the source of the problem.

A better solution, according to Linda Berkshire, is for students to help their own cause. Many senators and representatives are not aware of the adverse effects that the new proposals would have on college students. If they are made aware of the situation and if student response is great enough, then it is quite likely that Congress will not permit

CONTINUED ON DAGE 6

OW FOR THE UNABRIDGED VERSION...

Y XEROX

dvantage of the convenience the Caltech Y xerox machine r use in late night and weeorning hours, on weekends, when a walk to the Millikan ibrary xerox seemed like a relude to Exodus. However, me of the users of the Y erox machine do not log in ne copies they make, for asons unknown to us at The Perhaps it was commonly sed very late in the evening nd the users' eyes were too eary to read the directions for lling out quad forms; maybe ome users were in a hurry, lanning to fill out the charge orms later but forgetting sterwards; it could be that ome users cannot read inglish. Whatever the reasons,

press evening and weekend use of the xerox.

This is not a snap decision by the Y, nor should it be taken as a slight at the Honor System. This xerox problem has been constant and unyielding. It peaked in late January and early February: between Friday, January 30 and Monday, February 2, 113 copies were unaccounted for; on Tuesday night, February 10, 375 copies were unlogged; the clincher came on Wednesday night, February 11 with a record 1114 copies unclaimed. This problem of unlogged copies persisted under previous threats of temporary shut-down; it did not diminish after articles posing the problem

We are not making any accusations at people who use the xerox. We do not mean to desecrate the essence of the honor system. Whatever the reasons are for the continuing unlogged copies, The Y continues to lose money. The Y operates the xerox machine, charging per copy as much as it costs The Y per copy. So in trying to maintain the label of "non-profit organization" and avoiding the epithet of "un-profit organization", the only alternative is to limit the use of the xerox to Y business hours, namely 9:00 am to 5:00 pm. It will be rendered inoperable at any other time. Sorry.

-Juanito Villanueva Caltech Y Student Excomm

Editorials (and other such lies)

"If it gives you peace of mind, do it."—unnamed ex — Tech editor

I recently had a personal problem and went to discuss it with an upperclassman. He had some homey and mellow advice about what to do and what some alternatives were, and so, eventually, I was able to resolve the problem.

Reflecting on the advice he gave me, I encountered an incongruous expression, reprinted in its entirety above. I thought about it awhile, and came to the conclusion that the saying was no more trite or simplistic than Candide's "This is the best of all possible worlds." I have fully embraced the aphorism.

So what does it mean? A series of examples should suffice. For instance, early Thursday morning, around 3 a.m., a couple pieces of furniture in Blacker Lounge caught fire and proceeded to blacken a couple square feet of floor. I was lying in my room, trying to read, when the fire alarm went off. I didn't know what that strange ululating noise was, never having heard it before, much less participate in an actual fire drill, so I let the noise slide for a few minutes, until it became annoying enough to investigate. Had the fire been in Dabney Lounge and intense or fast moving, I quite possibly could have died of smoke inhalation or something unpleasant like that. Here is where the adage comes into play. The entire thought of death is depressing and morbid and hence destroys my peace of mind so I will choose to ignore all such items.

Again, this issue of the *Tech* has articles concerning the worry and trouble that President Reagan's budget cuts are causing in academic circles. But this also ruins my peace of mind, so I will ignore this.

What relief has this little motto gives my troubled soul! Now, I no longer worry, or care to worry, about the world's troubles. War, famine, plague, death, the four horsemen I scoff at. My world is unchanging in my point of view, only the good will I let through.

However, this shift in my philosophy hardly is new here. Everyday, I see and hear people utilizing the concept to justify deeds not done, promises not kept, opportunities not taken advantage of. "I'll write that letter tomorrow" over and over again; it's quite a wonder that anyone ever takes notice of anything. Living day to day is quite enjoyable, as it should be; things you've got to worry about? No sweat, ignore or forget it! If the consequences of usage of the saying catch up to you, well, it's been a good life and you had fun while doing it. Remember, nothing gives better satisfaction than a job well done. -Trace Furutani

THE CALTECHYfly-by

Today, Friday, March 6, 1981, is a day history shall not allow to go unnoticed. This is a time for both celebration and a time for remorse. A time for love, and a time for sadness. For this is the day of reckoning for Pretty Pat Productions, the day when he ascends to the Grand Noon Concert in Nirvana. The final celebration marking this monumental moment in history will take place at noon on the Ouad. Helping us through this painful period, THE VIEW will direct our memories of P. Pat Productions. P. Pat, we salute you- for the countless hours put into these Noon Concerts; for your tremendous ability to obtain quality programs satisfying everyone's musical taste; and last, but not least, for your charismatic style which made going to noon concerts an event in itself. Once again Pat, thank you and good luck with

your new life.

By R. Dale Terrier

I've done it! For over a year those Tech editors have been dropping all my courses on add day and signing me up for 60 or 70 units of Lit 15. I haven't had a minute to spare, what with making up sports scores, letters to the editor, advertisements, space fillers, and editorials; getting the traditionally tranquil Flems to be obnoxious so I'd have something to write about; thinking of innovative ways to say "continued on page 11;" canvassing the student houses for salary increases for the editors; hand lettering each of the 1200 copies of the Tech for six weeks while the printers were on strike; and a great many other things which even now I'd rather not think about. No more! I have finally seen my advisor face to face!* Now that he knows what I look like, the Tech editors can't get him to sign my add card anymore. That means no more Lit 15 and no more California Tech, not by me, at least.

You might wonder why I've been writing the Tech so far this term. Even if you don't, I'll tell you anyway. I don't want the Tech to go under. I've put about a solid half a year of my life into it, and I don't want it to have been for nothing. Besides, I like the funny things the editors always put in the staff box (that's the part they did; I didn't have time for it), like "Associate Editor" and "Circulation Manager." So, to make the transition a little *I would like to note that I am easier, I have found myself a volunteer; all I could get was someone nicknamed "Nick" (he natural ability for the job V, Section 3a.

*************** ``***********************

Being a Caltech student gives one many advantages in business transactions in the Pasadena area. One of the most obvious benefits is in dealings with The Pantry.

The Pantry allows us to cash checks with only a Caltech I.D. If you don't think this is amazing, try and cash a check there without letting the cashier know you're a Techer. It's very

difficult!

The Pantry also allows Techers to bring groceries back to Tech in shopping carts. Of course, they assume that we will return the carts within a reasonable amount of time (i.e., a few days). Altogether too often this does not happen.

The Pantry trusts us to return their carts. What happens if they decide that Techers

which should help him do even better than I did (well, at least a cart, please take it back for as good (or close (well, I guess I was pretty fantastic actually, he'll be a pretty feeble imitation)))). Not only that, he doesn't know how to read, so he can't read this to determine how to get out of the job. Please don't tell him.

So, the editors want randomness? I could reprint some random classics, such as "So I'm a writer now...", or "The moon is quiet now over the watchful monoliths...", but they're a little too random, and they've already been published by a *real* newspaper.

I wanted to make this a lot longer, so as to be a good space filler, but it's really so boring I can't stand to write any more.

merely using a well-defined successor. I asked one night at stereotype, and that I have not dinner for a freshman to personally had all that much trouble in finding my advisor. This statement given in accorwouldn't let me use his real dance with the Student Advisor name). I think 'Nick' has a Anti-Defamation Code, Article

All-you-can-eat dinner for 5.95!

Cólonel Lee's Mongolian Ban-B-Q

You can make your selection from four kinds of meat and fish, nine fresh vegetables, and ten different Bar-B-Q sauces. The sliced meat and fresh vegetables are cooked on our special Mongolian grill in just one minute, right in front of your eyes. Come and try it once. Our luncheon menu ranges from \$2.50 to \$3.95, and dinner is \$5.95 for all you can eat.

1115 Fair Oaks, South Pasadena (near Von's) 799-6176

ASCIT MOVIE NIGHT

TONIGHT:

HAROLD LLOYD The Freshman...

50¢ ASCIT members \$1.00 All others

Baxter Lecture

NEXT WEEK: Flesh Gordon

are not worthy of this trust? They start making us carry our groceries. (Which isn't bad unless you have more than two bags.) They take away our check-cashing privileges. In general, we would be less well off than we are currently.

There are shopping carts all over campus – in houses, in hallways, even in the trunk room! These shopping carts cost around \$60 each, Techers are currently costing The Pantry a lot of money.

In order to avoid having privileges withdrawn, I would suggest that on your next visit to The Pantry, grab a shopping cart and take it back. If you are not willing to do this, please gather up as many carts as you can find around campus. Bring them to the Quad by 2 pm on Saturday. At that time they will be taken back to The Pantry.

In the future, if you borrow the good of all of us.

— Cheryl Robertson

Addendum

Last week's article on the definition of humanities classes was not meant to be a letter to the editor. Instead, it was a memo to various members of the Humanities Faculty, which we got permission to run. We hope our error has not caused any misconceptions.

-the editors

The California Tech

Friday, March 6, 1981 Valume LXXXII Number 20 Published weekly except during

examination and vacation periods by the Associated Stu dents of the California Institute of Technology, Inc. The opinions expressed in all articles are strictly those of the authors and do not necessarily reflect those of the editors or of the corporation

Editors-in-Chief

Roger Fong Tracy Furutani Ed Suranyi

Associate Editors

Alan Loh Dave Younge Stuart Goodnick

Joe Balke, Margie Farrell, Les Grate, Lisa Grenier, Grover H.N.I. Mayhem, Absolutely No Paul Ste Marie, Richard Pogge Brúce Sams, Lee Sunderlir Glen Swindle

Photographers

Ken Gant, Paul Ste. Marie Steve Swanson, Mark Wag goner

Production

Nick Smith, Peter Kaminski, Mark Purtill

> Business Manager Gavin Claypool

Circulation Manager Paul Eskridge

Special Consultant

The California Tech publica tion offices are located Winnett Student Center on the Caltech campus. The addres is: Winnett Center, Calted 107-51, Pasadena, CA 91125 elephones–Editor: 356–6153 Business Manager: 356–6154 Printed by News-Type Service Glendale, California.

Subscriptions

\$2.00 per term \$5.00 per year \$100 for life ISSN 0008-158

Body shop

Among Caltech students, sleep seems to be "the one" item lacking these days. I've had many requests, questions, complaints, etc., about sleep and its deprivation. I thought this would be an advantageous time to cover this topic since finals are about one week

Thousands of people have trouble sleeping. The problems may vary from the inability to fall asleep, periods of wakefulness during the night, early morning wakefulness, or "unsatisfying" sleep. As a result you may feel irritable and physically tired and have difficulty concentrating during the day.

Following are some frequently asked questions about

Basically, what is sleep?

In the past 25 years, scientists have done a large amount of research in sleep laboratories. Studies have shown that there are two types of sleep. One, because it is associated with rapid eye movements, is called REM sleep. The other is called non-REM sleep. Your dreams appear to occur during REM sleep; people awakened during REM sleep often report they were dreaming.

Non-REM sleep has 4 stages: Stage 1 is the lightest sleep you experience; Stage 4 is the deepest. As you fall asleep, you pass through these 4 stages of non-REM sleep in order, go into REM sleep, and return to

Stage 1. In each succeeding cycle, you spend less time in Stage 3 and Stage 4 sleep and more in REM sleep. Each cycle of non-REM and REM sleep lasts about 90 minutes, so you may go through 4-6 cycles per night's sleep.

What determines when and how long we sleep?

Your daily rhythm pattern (circadian rhythm or the body's "inner clock") largely determines the timing of your sleep as well as other body functions. For example, the sleep/wake cycle, body temperature, and secretion of

certain hormones follow the 24-hour circadian rhythm pattern. Social factors and the stimulus of light regulate circadian rhythms.

How much sleep do I need?

Not everyone requires the same amount of sleep. Researchers don't know exactly how much sleep is needed, although some data suggests 7-8 hours per 24 hour period is the most satisfactory amount. Why do I have difficulty sleep-

Many, many factors can cause sleep problems. Some common causes are:

Age-if you are older than 60 (most Techers aren't, but some staff and faculty may be), you may find that you sleep less at night. Sleep researchers know that the older you get, the less deep sleep you have.

Stress-any abrupt change in your life, such as a serious illness, death of a family

member, job change, divorce, finals, pressure to perform (get an "A" in Chem) etc., can cause stress and possibly sleep loss. Stress-induced sleep loss may last several days but rarely more than three weeks.

Physical and psychological problems - illnesses, particularly ones that cause pain, can interfere with sleep. Anxiety and depression also are frequent

causes of disturbed sleep.

Drugs and alcohol—When taken for several weeks, sleeping pills can actually add to your sleep problem. The medication may disturb the pattern of sleep stages and your body develops a tolerance to the medication, causing the medication to wear off during the night. Alcohol may disrupt sleep for the same reasons, which explains why a nightcap, taken routinely, can hinder rather than promote sleep.

Delayed sleep phase syndrome—If you have difficulty falling asleep, but sleep soundly once you do get to sleep, you may be a night owl. Your body's inner clock is set for sleep to occur from 2 a.m.-10 a.m. for example, rather that need to readjust your time clock by slowly moving up you bedtime.

Jet lag - Because of the change of time zones, many people suffer from jet lag when traveling. Your body becomes adjusted to sleeping at certain times and your circadian rhythms are altered when traveling. You may feel physically and mentally tired for a week or more.

Sleep is a great restorer of our sense of physical well-being and our psychological balance. It improves our efficiency and puts our problems in fresh perspective.

Watch next week for some "Aids to better sleep"—until then, sweet dreams!

-Lynnette Wilmoth, R.N. Health Center 1-8

ASCIT Funding
Any student organization desiring funding from ASCIT should contact Steve Chin in 101 Page riving back at the mainland on House today. Thursday night.

GSU Meeting

There will be a meeting of the Gay Student's Union on Friday, March 6, at 9:30 pm in room 218 Baxter.

Sams. Bee wyl

UNEXCITEABLE BOY

Warren Zevon's latest, Stand in the Fire, is a work of narcissism that takes second place to few-Ted Nugent's Double Live Gonzo comes to mind-but doesn't even have that album's maniacal style to save it. From the front cover picture ("Look, Ma, I really do have a penis"), to the back "I'm a sensitive and talented guy' photo, the album reeks of hype. Who cares that a bunch of tone deaf young businessmen decided to whoop it up and see a "real Rock and Roller" some Saturday night. Although the recording (which is "live") is very good, the performance is as limp and "Hollywood" as anything Donnie and Marie ever aspired to be. Zevon's singing is hoarse and spasmodic. His band tries

desperately to keep the audience interested - and, amazingly enough, succeed.

The crowd responds perfectly as the band shifts from the boring title tune to "Jeannie Needs a Shooter" which gets an acceptable (though uninspired) performance. "Exciteable Boy" follows and a pathetic rendi-tion of "Mohammeds Radio" ensues (pursues?).

Can I make it to side two?...it's getting worse...no wait! here comes "Werewolves of London". The crowd is cheering, the band is jamming, and I'm...quitting. I guess he's got enough fans (he's obviously his biggest) without me.

I'm leavin' Zevon...alone.

-Bruce Sams

a.m. for example, rather that property of the property of the

Another 5:00 p.m. Y Item

Y Sail

Are you looking for something to do over spring break? Want to take advantage of the beautiful, sunny weather that will (hopefully) prevail over vacation? Want to really get away from Tech? If you answered yes to the above questions then The Y has a deal for you.

Sometime early in the morning of Monday, March 23, a Cal 39, Chulupa III, under the skippership of Don Skelton will set sail for Catalina with about eight Techers aboard. The present itinerary calls for stops at the Isthmus, Little

It is anticipated that all three nights will be spent at developed campgrounds so that most people can sleep ashore. Cooking will be done both aboard the boat and ashore. Individuals going will have to provide their own camping gear, although The Y will have a limited amount available for

If all this sounds good to you, read on and get the details. No sailing experience is necessary, but you must be able to swim. We will be looking for some people with sailing experience. People will be considered without regard for whether or not they went on previous sailing trips with The Y. The cost will about sixty dollars, and include both food and the boat. If it all still sounds good to you, come to The Y and sign up on Monday the 9th or Tuesday the 10th—that's next week—and a lottery will be held at 5:00 pm on Tuesday to see who's going. - Mark Maier

Buy Caltech Cards and save 20%

IMMIGRATION ATTORNEY

STUART I. Folinsky.

2459 Mission Road

San Marino

Phone: 799-0671

L.A. Office:

413-8090

CALTECH'S

Buy Caltech Cards and save 20%

BURGER CONTINENTAL will offer you a deal you cannot refuse.



good food at reasonable prices refills on soft drinks at all times seconds on salad bar

SPECIALTIES: SHISH-KABOB, SHAORMA, SOUVLAKI-STEAK HOMEMADE PASTRIES: BAKLAVA, BURMA, AND NAPOLEONS

A Special Treat for March! A Free Root Beer Float To All Undergraduate and Graduate Students

Faculty, Grad Students, Attend! Mondays and Tuesdays are Beer Days. Buy 1 pitcher, get the second one free!

On Lake Avenue 1/2 Block North of California

UANDIBE



Photo by S

Various shots of Candide, the successful Caltech musical of last weekend. Clockwise, from the top, what's Voltaire (Bruce McLaughlin) eyeing? Why Pacquette (Karen Ribbens) as the Madonna, bien sur. The Governor (Michael Juda) falls head over heels for Maximillan (Robert Lang) in drag. Candide (Chris Kingsley) finds that his true love Cunegonde (Jean Gothold) is not dead after all. Finally, Maximillan tries to impress Dr. Pangloss (Voltaire). Nice shot of Pacquette.

CENTRAL INTELLIGENCE AGENCY

If you want to be on the inside of international affairs, we have a job for you.

It's not a job for everybody. It's for a few very special men and women who have the talent, skills, intelligence, self-reliance, and self-motivation to work in challenging situations, withstand hardship, make on-the-spot decisions. Begin a career as one of those very special people who are information-gathering specialists for the Central Intelligence Agency.

The rewards match the challenge. Good pay and benefits, of course. Plus security. But, most important, positions of responsibility, the ability to use your talents to their fullest, to escape from the routine, to acquire valuable experience. Plus the knowledge that you are one of an elite group.

Qualifications required include a strong desire for personal growth, U.S. citizenship, a college degree, language skills or aptitude, and an interest in international affairs as evidenced by academic study, foreign travel, or work experience.

Starting salary is \$15-22,000, depending on qualifications.

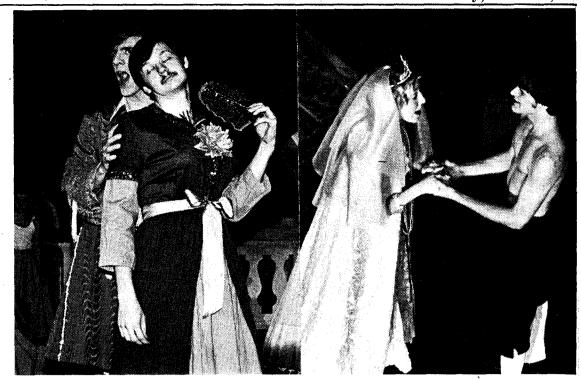
Get an application form from the Career Development and Placement center. MAIL IT NOW! Qualified applicants will be contacted to arrange an off-campus interview.

MAIL YOUR RESUME OR APPLICATION TO:



CENTRAL INTELLIGENCE AGENCY

L.L.Curran P.O. Box 669 Lawndale, CA 90260





Disneyland Is Your Land.



And it's my land, too.

Working at Disneyland is a really special experience for Judy. There are a lot of reasons, but one seems to stand out. People. You'll work with some great people and share more with them than just a job. Employee recreation programs. Organized sports. And all the other benefits that come with being a part of Disneyland, whatever role you may be selected to play.

And, you'll be scheduled primarily during peak vacation seasons, so your work won't

conflict with school.

Right now, we're looking for more special people to make Disneyland their land.

Stop by and see us today.

Immediate openings now available. Apply in person. 8:00 AM-5:00 PM, Monday thru Saturday.

Disneyland

An Equal Opportunity Employee

1981 Walt Disney Productions

Bike Lane

Billie und Ich

As many of you may know from personal experience, there is a current craze, or call it an obsession, with running. While running is good for your cardiovascular system, it also tends to develop your leg muscles; especially the one in the back part of your thighs. Unfortunately, many people's running style tend to use only this muscle and not the one in the front, or quadriceps. This is because most casual, flat country jogging will not need

The quadricep muscles are important in several sports where acceleration or upward force is necessary. Such motions of the leg are especially important in cycling, speed skating and hill climbing. A very interesting thing I noticed recently was the number of people who run downhill. On my occasional trips to the Mt. Wilson Toll Road, I have seen many people running down but I have yet to see anyone running up. Why would they want to risk their knees while not getting the benefit of developing their quadriceps? Even more, why those people do not develop their quadriceps by fiding a bike I'll never know.

OK, I guess running uphill is kind of hard for most people, but how about hiking? One of the assets of this school, or its only asset to some, is the mountains in the backyard. There are streams, water falls, cougars, deer, snakes, telescopes, women, men, some trees, restrooms, and sometimes even snow in those mountains. About the only thing you can not do is to dimb rocks in Mt. Wilson area. Most of the area is made up of badly shattered

TWO 90 MIN ILLUSTRATED

UF0

TAPE LECTURES
by Physist GARY KURSH

TOPICS DISCUSSED

STRUCTURE OF UNIVERSE
HISTORY OF UFO
UFO BEHAVIOR AND EFFECTS
UFO DRIVE MECHANISMS
UFO TECHNOLOGICAL IMPLICATIONS
WHO ARE THEY
FOR PART 1,2 SEND \$12.98
EACH,MAKE CHECK TO KURSH
KURSH 10
PO BOX 998 (SP #133)
EL SEGUNDO CA 90245
ALLOW 6WK FOR DELIVERY



THE HAIR CUTTERS

HIS AND HERS OPEN EVENINGS

449-6967

449-1022

1009 E. COLORADO PASADENA NEXT TO THE ACADEMY THEATRE PARKING IN REAR metamorphic rocks.

You may ask, "but what are those things good for?" Well, hiking up the mountain can mean passing poor boy scout troops struggling up the Toll Road, talking to someone random like a regular hiker out there who is also a 1921 Techer, or just about anything. Also, of course, you will be developing your quadriceps. That's important you know.

For those people that are into nostalgia, there is also THE Big-T. Like many places, Caltech also has an initial inscribed into the landscape. The letter T has been up there since

1920 but has not been cleaned out since the sixties or the early seventies. (Actually, there was an attempt two years ago but the hero of Valhalla screwed up.) Amazingly enough, you can still make out the letter with trained eyes. It lies just under the Henninger Flats Heliport, just east of the big firebreak along the ridge.

Recently, there has been some interest in reviving the letter, led mainly by the Alumni Association. This has aroused some student interest in the project. (I know that there is somebody I don't know about who is interested since I found

some fresh trails up there before the rains.) As I understand it, the last bunch of students that did clear it did it at night. I also understand that they were thrown in jail because the environmentalists cried foul. Supposedly, the letter creates excessive erosion. Actually, I saw more erosion a hundred feet west of the T where a gully has formed since the T was inscribed. It is the environmentalist's influence that has eroded since that time.

By the way, clearing the T used to be a freshman ritual. I also understand that Tech frosh used to wear beanies.

By the way, my ankle is still bothering me. (Actually, Lynnette, l re-twisted it.) Anyway, since Billie refuses to go on a bike trip with anybody else, I will be writing some random things or nothing at all.

Classified Ads SERVICES

▼ TYPING ► ►

Lexitron word-processing service. Call Marie at 449–3838. Twenty-four-hour service. A Neil Hickey/ Shal Farley Enterprise.

FOR SALE

GENE RUBIN AUDIO. We carry only those products which provide highest quality and value. We feature: PS Audio, Thiel, NAD, 3D Acoustics, Chartwell LS3/5A, Spendor, Cizek, Hafler, VPI, Connoisseur, KM Labs, Dynavector, Grace, LAST, Live Wire, Platter Matter, Adcom, and more. M/C & VISA. (213) 571-1299.

Buying or selling something? You, too, can take out an ad in The California Tech! The cost is \$2 per inch plus 30¢ per extra line for Classifieds. Bring ad copy to the Tech office or call 356-6154. OK?

Career opportunities in Engineering and Computer Science

\$\$\$ WANTED \$\$\$

for PRACTICING

SORCERY and WIZARDRY

Electronic and Computer Science Engineers

Technical IIII will be conducting on campus interviews on

March 12, 1981. Contact the Placement Office for an appointment

or further information.

Technical Magic

Your Name

Engineering and Wizardry

17742 A Mitchell Irvine, CA 92714

(714)556-2380

Technical Magic

Your Name

Software and Sorcery

17742A Mitchell Irvine. CA 92714

(714)556-2380

Financial Research Trouble Woes

trom one

President Reagan to reduce aid to students as drastically as he proposes to. So STUDENTS WHO RECEIVE FINANCIAL AID SHOULD WRITE TO CONGRESSMEN THEIR AND STRESS THE IMPOR-TANCE OF RETAINING STUDENT AID PROGRAMS. If you don't know who your congressmen are, the financial aid office will be glad to find out for you. Also, students should write to ranking members of House and Senate committees on budget and appropriations (see the list at the end of this article). In particular, students should write to Senator Harrison Schmitt of New Mexico (he is a Caltech alumnus) and to Representative Peter Peyser of New York, who actively supports financial aid programs for college students.

In closing, let me point out that I have no objection to the country having a balanced budget, nor do I feel that college students comprise some sort of privileged class. However, the fact of the matter is that no program for improving the economy can ever succeed without people educated enough and talented enough to carry it out. The college students of the United States, and especially those at Caltech, represent a human economic resource—a pool of the sort of talented people who can get the American economy moving again and keep it that way. If federal aid to students is reduced, many such students will be forced to drop out, costing the U.S. desperately needed technical and professional people. In other words, cutting back on aid to students may help solve some of today's problems, only to cause greater problems in the future. So like I said before, WRITE YOUR **CONGRESSMEN NOW!**

TROM ONE

estimates he has spent two years writing, and will require \$125,000 to complete, a porgrants of the NEH. It will be extremely difficult to complete the book without that funding.

Some alternatives are being explored. Other sources of funds, such as the Heritage Foundation, will not suffer from the attenuations of the Reagan Administration, and hence, are becoming attractive. The Institute itself already partially supports many of the fellowships and salary stipends, but there is a limit.

But with all the cuts, Kousser believes, there will still be more, as the Reagan Administration is digging a deficit by increasing military spending. Who will be next to have their budget lopped? It will be those groups who are not strong enough to cry out or who appear to be of least value to voters. This year it was the NEH, next year perhaps NASÁ?

Dr. Kousser predicts that more government supported institutions, like JPL, will have to turn to the Department of Defense for money and so more projects will have to be defense-oriented. Thus, on top of the cuts in the GSL and BEOG programs, there are more problems in store for students, not just humanities, but very soon in the sciences; basic research as supported by the government is in for trouble. Concludes Dr. Kousser, "[It] doesn't look good for academia."

[Eds. note: If you want this research, any research, to continue, both in humanities and sciences, WRITE YOUR CON-GRESSMAN BEFORE THE **BUDGET'S PASSED.**]

To address a letter to a member of Congress, simply

Congressman X House of Representatives (or U. S. Senate) Washington D.C. 20515 (House) or 20510 (Senate)

CALIFORNIANS on Senate and House authorizing, appropriations and budget committees.

House Committee on Appropriations, Subcommittee on Labor, Health, Education and Welfare Edward R. Roybal (D-CA)....2211 Rayburn....(202) 224-6235

House Commit	tee on the Budget	
orman Y. Mineta (D-CA)	2352 Rayburn	224-2631
eon E. Panetta (D-CA)		
obbi Fiedler (R-CA)		

House Committee on Ways and Means	
Fortney H. Stark (D-CA)1034 Longworth	. 224-5065
Robert T. Matsui (D-CA)329 Cannon	
John H. Rousselot (R-CA) 2133 Rayburn	224-4206

House Committee on Education and Labor	•
Augustus F. Hawkins (D-CA)2371 Rayburn	224-2201
Phillip Burton (D-CA)2304 Rayburn	224-4965
George Miller (D-CA)2422 Rayburn	224-2095

And especially Peter Peyser (D-NY)......301 Cannon.....224-5536

Show your support and send these people letters, if you want to retain financial aid and research programs.

n en en en en en en en en en e

Tech Off **Blocks Fast**

The 1981 Caltech track tion which will come from team opened its season last week at the annual SCIAC Relays, held at Whittier College. It was a very successful beginning and bodes well for the team's fortunes in 1981. The day featured numerous individual and team performances that were noteworthy. Karl Clausing ran a good time of 10:04 in the 3000 meter steplechase to take second place. It was his third fastest time ever in that event. Scott Bloom opened his sophomore year with a bang, pisting lifetime bests of 16.9 for fourth place in the high hurdles an dthen a very good time of 58.5 in the 400 meter hurdles to take a convincing first place.

The Beaver relay teams fared well also. In the Distance Medley, Randy Field, Lewis Collins, Vince Cammarata, and Eric Korevaar combined to take third place, only 4 seconds behind Occidental College. Tech's time was 10:45.9. In the Two Mile Relay, Collins, Korevaar, and Cammarata Korevaar, and were joined by Clausing to take a strong second place in the

time of 8:27.3, just a few strides behind winner Occidental.

There were a total of eight lifetime best performances by Tech athletes for the day, a remarkable feat for the very first meet of the year. Coach Neal believes that this is the best balanced and most competitive team that Caltech has fielded in the past decade. If the results of last week are any indication of the team's potential, by the end of the season it could be the best team for Tech in the last 20 years or more.

This Saturday the Caltech squad will host Occidental and Verne Colleges in a triangular meet for the home opener. The first events will begin at 11:00 am.

Dance Demonstration

You are invited to a lecture/demonstration by the Caltech Modern Dance Class and guest choreographers. It will be held Tuesday, March 10 in Dabney Lounge, at noon and 5 pm (two protions -40 minutes each). presenta-

Bye, Bye Basket-Ball

By P.G. HephzibahThe 1980-81 basketball

season draws to a close on a sort of dismal note. The Beavers dropped a heartbreaking 58-50 game to Pomona, But despite this setback and a 3-18 season record, Coach Mike Poizner's rookie season was in many ways a big success, and since there will be at least six returning lettermen and several talented junior varsity players on the team next year, 1982 could prove to be very successful.

This year's team was the most competitive team in nearly a dozen years, losing seven conference games by twenty points or less. In the past, Beaver teams have been able to challenge, at the most, one or two other conference teams, but this year, only Whittier and Redlands were able to dominate Caltech. A lot of credit goes to Coach Poizner and his assistant Mark Mc Cleave. Some of the players who deserve special mention are seniors Pat McMurtry (most points scored), and Gary Tornquist (most rebounds) and juniors Frank Janeczek (best offensive player) and Phil Patten (most inspirational.

Is There Life After **Graduate School?**

Myth: An advanced technical degree will get you a job in industry that will keep you on the production line for years before you'll get a chance to do

some real research.

Fact: Fairchild's Central R&D Laboratories have research opportunities for new MS and PhD graduates NOW.

At Fairchild's Central Research and Development Laboratories in Palo Alto, California, the atmosphere is charged with new ideas, new developments, and new expansion. Fairchild's increasing commitment to strong research programs is extending the frontiers of electronics technology in telecommunications, advanced VLSI circuit logic, processing systems, CCD image sensing, CAD technologies, and artificial

All this activity means that opportunities to move directly from graduate to industry research couldn't be better than right now.

On-Campus Interviews Monday & Tuesday March 9-10

If you're about to receive a Master's or PhD in a technical field, contact your Career Planning and Placement Center for an appointment with a representative from Fairchild's R&D Labs. For more information on Fairchild in Palo Alto, call J.A. Blades at (415) 493-3100. Or you may send your resume directly to University Relations, Fairchild Central Research & Development Laboratories, 4001 Miranda Avenue, Palo Alto, California 94304.

As an affirmative action employer, we encourage women, members of minority groups and the handicapped to apply.



A Schlumberger Company

Another Random Piece Inflicted

Every year, as the days row longer and the sun melts now from the northern climes, inew batch of pubescent little lighschoolers eagerly awaits hat letter from Tech informing "YOU have been acepted to the California Intitute of Technology (!!!)" Whind those successful, strewn mongst the mounds of their alf-digested texts, stand the mages of their proud parents, heir awed and envious friends, logether beaming some kind of peredible expression that, like knife, seems to cut through I the years and mark with indeniable brilliance...a most nusual beginning.

But hark! Far in the distance a wise old upperclassman, wizened and half enile, gurgles cynically and effects, "Was it all worth \mathbb{R}^2 ...heh, heh...Was it worth all the sufferin'?...heh, heh, heh...Was it worth all the stares of ignorance or derision look from all them people on the other side?...oh, oh π , π ,

For many Techers, the Institute has indeed been a longtime goal. For many, it werns, that goal has ben so important or so obviously the hing to do that the question of any other sort of existence has

never even entered their minds. Is graduating from Tech "worth all the sufferin"?"

Tech provides great "battlefront experience." It truly provides a great opportunity for the Techer to test and build his mental muscles so that he may be just as outstanding in his profession as he has been all his life. But is there anything more to the person?

"Normal persons", it seems, are often quite puzzling to the Techer. For instance, every young Techer has the shocking experience of exclaiming to someone, "Yeah...I go to CALTECH" only to hear, "Oh yes, isn't that like Bailey Tech? Tell me, do you work on cars or refrigerators?" Similarly an old friend or relative, sometimes very annoyingly, will make some remark like, "Say, how is it out there at Cal Poly?" The young Techer is likely to think, "Cars or refrigerators!!! Cal Poly!!! What is the matter with these people!" The older Techer on the other hand has gradually come to the conclusion that he is or at least was very peculiar, and so can pass off such remarks with little more than a "wizened sigh".

A point worth noting in these circumstances when

Caltech is stripped of its awesome name is that many Techers react with wistful musings along the lines of, "Maybe I should have gone to Podunk U. and breezed through in a couple of years?" Evidently Techers, or at least pre-Techers, highly value that gaping awestruck expression they expect to see spread across the paralyzed face of any random person who just found out where they spend their lives.

But it doesn't end there. Not only do most people evince general ignorance of even the existence of the Institute, but those in the know often have rather unkind or downright insulting remarks to make about it and the Techer. For example, "Hey, nerd!" or how about (usually "Creep!" from women). Sadly, the truth is that most Techers are nerds and they ought to face up to the fact. Techers are different from most people and this "dialect of humanity" would

honestly serve very well as a practical standard of nerdliness. (Someone call up NBS!)

Mercifully, a final question may be posed. "Is it all so bad?" This question, like most of the ones before it, can only be answered by the individual. Techers are different from most people. They are generally driven to the Institute (for various reasons, some of which have already been hinted at). What most Techers or pre-Techers ought to do is face up to what they are and ask themselves if they would really be happier anyplace else. To hell with society's stereotypes and critiques. What matters in the long run is your own peace of mind.

So...heh, heh, heh...was it worth all those nasty things? Ask yourself.

-George Benson

MANAMANANAN

Wind Ensemble

As you might have heard by now, due to health reasons, Jim Rotter has had to resign as the director of the Caltech Wind Ensemble. William Bing, Caltech Artist in Residence and director of the Jazz Band here at Caltech has been chosen to take his place.

The Wind Ensemble needs new

The Wind Ensemble needs new members in almost all sections of the group. The next year or two will be a growing period for the ensemble. If you haven't played your instrument for a while, the band can use you anyway. Right now, more than finely tuned instruments and practiced musicians, they need warm bodies.

It doesn't take much time. Only two

It doesn't take much time. Only two hours per week for rehearsal are normally scheduled, and there are just two concerts remaining in the school year.

The ensemble rehearses on Thursday nights from 7:15 to 9:00 pm. The location is Beckman Auditorium basement.

ment.

If there are any questions, please call Bill Bing at 684-8964, or leave a message with Theresa Meisling at Winnett (phone 356-6157).

NUCLEAR REACTOR MANAGEMENT TRAINING: OPENINGS/OPPORTUNITIES

Department of the Navy, Division of Nuclear Reactors is accepting applications for nuclear propulsion management trainees for openings beginning in June 1981.

Additionally, College *Sophomores* or *Juniors* can apply and if screened successfully, can qualify for up to \$800 a month retainer until completion of college. (Also available to grads in masters programs.)

Training program consists of 10 months instruction in:

Thermodynamics, Personnel Management

Electrical Engineering, Career Counseling Chemical Analysis Control, Reactor Theory, much more

Six month internship at one of three U.S. and overseas sites with opportunities for assignment at various U.S. and overseas sites following internship. Paid relocation.

BA/BS/MS degrees in math, physics, engineering, sciences U.S. citizens only/physically qualified Excellent salary benefits package/bonuses

Sign up for an interview at the Placement Office

Friday, March 13

or call: (213) 468-3321

Delve into ATARI's High Tempo Technology in the fastest growing segment of the marketplace — electronic amusement games. There's unlimited applications and variations and your conceptual creativity can make it happen.

If you have visions of electronic wizardry in the industry where ATARI sets the pace in video programmables and coin-op video arcade products and an outstanding personal computer system — backed by a technical degree — consider for pure enjoyment an ATARI career.

GRADUATES:

Tuned to the beat of inventive professionals

at ATARI,

A Warner Communications Company

on the SAN FRANCISCO PENINSULA

COMPUTER SCIENCE (BS/MS)

Software opportunities in Assembly language, video games programming, and real-time microprocessor systems programming.

*Minicomputer and/or microprocessor coursework or experience a plus in all opportunities.

On Campus Interviews Wednesday, March 11

To schedule an appointment, contact your College Placement Office immediately.

ATARI's dramatic growth and facilities expansion tells the story as does record financial success in 1980. Salaries & benefits are exceptional, including a Sabbatical Leave Policy which offers 7 weeks paid leave of absence after 7 years continuous service with ATARI.

Please send resume or contact Rich Stiller, Employment Department, ATARI, INC., P.O. Box 427, 1265 Borregas Ave., Sunnyvale, CA 94086. (408) 745-2030. We are an equal opportunity employer.



A Warner Communications Company

Fluor Mining & Metals

ON THE MOVE

Fluor Mining and Metals is an engineering/construction company offering full engineering services to the mineral industry in the U.S. and abroad.

Our Geological, Mining and Process groups provide an integrated systems approach to mine and plant design. We currently have permanent positions available for **Geologists, Applied Mathematicians, Mining Engineers** and **Metallurgists** with a strong FORTRAN computer background to work on development and implementation of systems for geostatistical ore reserve estimation, mine planning using operations research, and computer aided metallurgical process design.

To apply for these positions, or for further information about Fluor Mining and Metals, send your resume to:

R.E. Haney, Fluor Mining and Metals, Inc., Dept. SFC-4638,

10 Twin Dolphin Drive, Redwood City, California 94065.

Fluor is proud to be an equal opportunity employer.



stuff that didn't fit anywhere else

Sells in Ramo

On Tuesday, March 10, the Pasadena Chamber Orchestra, the featuring Michael Sells, tenor, will perform in Ramo Auditorium at 8 pm. Under the direction of Robert Kenneth Duerr, the orchestra will perform Tchaikovsky's "Serenade for Strings"; Benjamin Britten's "Les Illuminations"; and the world premiere of Frederick Lesemann's "Music for String Orchestra and Computer-Synthesized Sounds." Admission: \$7.50 general, \$5.00 students. Phone 356-4652.

Hughes Info

Mr. Richard l Remy, Hughes? Manager o f Fellowship and Rotation Programs, will be on campus Tuesday, March 10, 1981 to give an introduction about these programs. All interested students are welcome to attend. The session is scheduled from 4-5 pm in 153 Noyes. For further information, please consult the Placement Office, Room 8, Dabney Hall.

Lit 125a Lives!

Contrary to the course announcement, Lit 125a (Romanticism) will be offered in the spring quarter of 1981 by Professor Ende. There will be an organizational meeting on Wednesday, April 1 at 7:30

Women In Engineering

The Los Angeles Section of Society of Women Engineers awards several scholarships each year to graduate and undegraduate women enrolled in accredited Southern California Engineering schools.

Three or more awards of \$1,000 each will be awarded this eyar, as well as nonmonetary Recognition Awards, for outstanding achievement and potential in enginering. Scholastic achievement, work experience, activities on and off campus, and financial need will be evaluated in an equitable manner. Personal interviews will be conducted with the finalists.

Further information and applications are available in the undergraduate student aid office (Dabney 208). The application deadline is APRIL 1,

Fly Your Armchair to Greece

Wandering in Greece will shown in Beckman Auditorium on Friday, March 13, at 8 pm. Bill Madsen will narrate this Armchair Adventures film. Among the cities to be visited are Athens, Kavala, Meteora and Olympia. Admission: \$5.00 - \$4.00. Phone 356-4652 for information.

Post-Newsweek Money

The Post-Newsweek Stations have announced their scholarship program for 1981-82. Post-Newsweek extends financial assistance to college students who are majoring in a course of study that could lead to a career in broadcasting or an allied field. They have indicated a specific interest this year in broadening their program to include students in technical degree programs. The program is open to any student who:

1. will be a junior or senior, in 1981-82;

2. is within the top 25% of his or her class scholastically;

3. is majoring in a course of study that will substantially prepare the student for a management career in broadcasting, such as business management, marketing, television production, journalism, or electronic engineering;

4. is in need of financial assistance.

Grants will average \$1,000 per year, and the deadline for applications is APRIL 30, 1981. Further information and applications are available in the undergraduate Financial Aid Office (Dabney 208).

Duos and More Duos

Caltech is loaded with good musicians, especially pianists. This evening, March 6 at 8 pm, seven pianists from Elma Schonbach's Ensemble class will perform music for four hands in Dabney Lounge. Sandra Loh, Carolyn Venger. Michael Meyer, Kent Daniel, Michael Kong, Kimo Yap and Xian-Li Yeh will present music by Beethoven, Schubert, Mozart, Loh, Schumann, Satie and Khachaturian. The public is invited to the concert and to the reception.

Trio Follows Duos

On Sunday, March 8 at 8 pm, the Venice Trio will perform in Dabney Lounge. This Dabney Lounge Chamber Music Concert will feature pianist Kathryn Ando, cellist Frederick Seykora and violinist Kathleen Lenski performing Beethoven's 10 Variations on the song "Ich bin der Schneider Kakadu," Op. 121a; Trio in C Minor, Op. 1, No. 3; and Ravel's Triio in A Minor. Admission free. Phone 356-4652 for information.

OWC Wine Tasting Party

The Organization for Women at Caltech is sponsoring a WINE AND CHEESE TASTING PARTY on Friday, March 13 from 5:30 to 7:30 pm in Dabney Lounge. Entertainment will be provided by the Chamber Music Program of the Humanities and Social Science Division. A donation of \$5.00 is requested. To order a ticket, please contact Ruth Wilson (x6280, 208-40) or Chris Wood (x6351, 210-40).

PERSONAL

Chairman Chu: Happy Birthday. Its been a pleasure serving you.

Sincere members, Sui-Ling & Hero

Ming Chu,

Why do you always want to eat our "To-Fu" at bedtime?

Love, Yeelina and Yvonne

Dearest Ming,

It is a shame for you to spend nights alone with your pens.

Jen and Tsu-Jae

Happy Birthday Ming, I know that to be proficient in flute-playing, one must practice every night.

Joyce & D

Mr. Chairman,

Happy Birthday! Congratulations on your big successes with the women's club. R.N., C.Y., & K.H.

Globe in Beckman

Tonight (March 6) and tomorrow night, there will be performances of A Moon for the Misbegotten in Beckman Auditorium at 8 pm. This Eugene O'Neill play is the compelling drama of a harddrinking playboy sharing a night-long encounter with a compassionate woman. It will be performed by San Diego's Old Globe Theatre. Admission: \$9.00 general, with student discounts. Phone 356-4652.

Third Term PE Students!

Sign-up for PE classes start at 1:30 on Monday, March 30, 1981. Classes will begin that week.



The PRIME Engineering Team a highly innovative group which relies on the contributions of bright new talent and experienced technical staff alike.

Prime Computer designs, manufactures, and sells medium to large scale interactive minicomputers in the end user market. In an incredibly competitive market, our people and our products have made Prime one of the fastest growing computer companies in the

the company to join for technical challenge and professional advancement in Engineering Research and Development as well as Marketing, Finance, and Manufacturing. We provide the tools necessary to support

> If you are expecting a degree in CS, CE, EE, or ME, please arrange to see our Engineering Research and Development representative on campus this Spring or send a resume to: Charles Cohen, Prime

Computer, Inc., 500 Old Connecticut Path, Framingham, MA 01701, Dept. R16. Prime is an Affirmative Action Employer, seeking outstanding individuals.

THE ONE YOU'VE BEEN WAITING FOR.



HAIRSTYLING SPECIAL!

to Caltech students with student ID card

ON EVERY HAIRSTYLE

SHAMPOO, BLOW **CUT AND DRY**

FOR MEN & WOMEN (FOR APPT. CALL) 792-5301

201 So. Lake Ave., Pasadena

Caltech 107-51 PASADENA, CALIFORNIA 91125

NON-PROFIT ORG. U.S. POSTAGE

PAID PASADENA. CA PERMIT NO. 583

The California Tech is published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc., Winnett Center, Caltech 107-51, Pasadena, California 91125.