

ENGINEERING EDUCATION → VERSES ←

Richard M. Felder
Department of Chemical Engineering
North Carolina State University

LIMIT CYCLE

It must be a canon of natural law
Or a reflex reaction like jerking of knees,
That whenever a company's profits are down
They proclaim an across-the-board hiring freeze.

Seniors looking for work find the door has been barred.
The red carpets that last year were there in full view
Have been rolled up and mothballed and stored out of sight,
And the letters all read, "Don't call us, we'll call you."

For the next several years on each campus you'll find
Would-be engineers singing their frustrated blues
And the word gets to seniors in high school that if
You select engineering you'll pay some high dues.

Now these kids are no dummies, they soon get the drift
And to business and law school they roll in a wave.
Engineering enrollments go down like a stone
And the deans struggle vainly their budgets to save.

It's a national crisis! Blue ribbon commissions
Spend years and big bucks in a terrible fright,
And proclaim that the old engineering profession
Is sick unto dying, with no hope in sight.

Then of course there occurs a dramatic reversal
That cuts short the agonized moaning and tears,
For it seems that the companies had a good quarter
And all of a sudden they need engineers!

The call soon goes out, all the freezes are lifted,
Red carpets are hauled out and vacuumed with care,
But recruiters soon find to their shock and surprise
That the students they're trying to get aren't there.

Now the circus begins, it's the law of the jungle,
If your pulse can be measured they want you right then.
Up go salaries, perks, and enrollments once more
Till the whole silly cycle starts over again.

So what can we learn from this sad sordid story?
The moral in just a few words I'll disclose:
If our industry wants to stay healthy it might think
Of lifting its gaze past the end of its nose.

WANNA MAKE ABET?

Who cares if their coming inspection
Puts our jobs and prestige on the line?
Since our courses are called engineering,
What we teach *has* to count as design.

OH NO, IT'S THE E WORD!

Thermo mavens rant about it
Gibbs and Sandler and Van Ness
Give you formula and prose
About this thing that's known as S.

It increases with disorder,
It's a property of state,
It is zero for some crystals,
It's the universe's fate.

It can be dq or dU
and sometimes dH over T ,
It's a measure of extent of
Irreversibility.

It accounts for work that's lost
In engines, blenders, pipes, and flues,
Due to friction or to mixing.
It's a game we always lose.

It's the reason we succumb
To death's inexorable crunch,
It equals $k-l-n$ omega,
It's why there's no free lunch.

You can look it up in tables,
Find it on a Mollier graph,
But can they tell you what the hell it really is?
Don't make me laugh!

There must be some way to explain
In terms we all could easily understand,
If not perhaps we should simply say it's one of
Those things that can't be put in terms that let you just write down the answer...

TEACHER TRAINING WORKSHOP (SHORT FORM)¹

If you're anxious for to shine in the academic line
As a man² of wisdom rare,
You must cultivate the Dean and bring in lots of green
And publish everywhere.
You must go to learned meetings and exchange flamboyant greetings
With the heroes in your field.
Your rise will be dramatic and your peer reviews ecstatic
And your reputation sealed.

And everyone will say,
As the plaudits come your way,
If this young man got a PYI
Not to mention an ERC,
Why, what a most extraordinary paragon of scholarship
This bright young man must be.

Be nimble on your feet too when a VIP you meet who
In your field enjoys respect.
Though you think that in his work he is a thoroughgoing turkey
You must smile and genuflect.
For some day he'll have a vote on a proposal that you float,
As toward major grants you steer,
And you wouldn't want him to cut you down in his review,
Like you did to him last year.

And everyone will say,
As you wend your upward way,
If this young man has friends in court
At every funding agency,
Why, what a very truly stunning academic superstar
This superstar must be.

As your star goes on ascendin' you must guard against a tendency
To ease up on the pace.
Work at night and on the weekend
Lest in time you face a bleak end
In the crucial tenure chase.
Teach your class, serve on committees, go give talks in far-off cities,
Put equipment out on bids,
And maybe every week or two a reasonable thing to do
Is visit with your wife and kids.

And everyone will say,
As you turn prematurely gray,
If this young man works a hundred-hour week
Which is far too much for me,
Why, we had better rush to find him a Distinguished Chair
So he doesn't jump to MIT.

¹For those who lack the Patience for the long version. (Apologies to W.S. Gilbert.)

²Or woman.