C51 language programs for the 8051 should be turned in using the following format:

// Your Name
// Assignment number
// Date
//
// Header describing what program does
//
#include <at89c51cc03.h>      // CC03 library file
//
Declare any global variable here
//
Put in subprogram prototypes here
//
//
void main(void)                 //This is the start of the main program
{Declare all variables here
 ...
 main code goes here
 main code must be a perpetual loop or
   end in a while(1);
}

//
Put in subprograms here

A complete example is given on the following page.
This program implements a real time clock in C for the 8051. The interrupt is set for 50,000 ticks. At 12MHz this is 50 msec. At 6MHz this is 100 msec = 0.1 second. The clock increments a minutes variable each 10 interrupts.

#include <at89c51cc03.h>

//Clock variable are global so that they can be accessed anywhere in the program
unsigned char seconds;
unsigned char minutes;
unsigned char TenthsCounter;

//Function prototypes
void OneMinute(void);

void main(void)
{
    TMOD = 0x01;   //Timer 0 mode = not gated, internal clock, 16 bit, no auto reload
    TH0 = 0x3c;    //Timer 0 high and low byte. Interrupt
    TL0 = 0xb0;    //occurs when timer overflows on up count
    TR0 = 1;       //Timer 0 run control bit in TCON
    ET0 = 1;       //Timer 0 interrupt enable
    EA = 1;        //Global interrupt enable
    while(1);      //Wait here for interrupt
}

//Interrupt service routine uses register bank 1
void OneMinute(void) interrupt 1 using 1
{
    TH0 = 0x3c;    //Reload the count register
    TL0 = 0xb0;
    TenthsCounter++;    //Interrupt at msec/10
    if(TenthsCounter > 9) //For each 10 update seconds
        TenthsCounter = 0;
    seconds++;        //minutes can overflow
    if(seconds > 59)   //For each 60 seconds update minutes
        {seconds = 0;
         minutes++;
        }
}

}